Doc Code: TRACK1.REQ
Document Description: TrackOne Request

PTO/AIA/424 (03-14)

CERTIFICATION AND REQUEST FOR PRIORITIZED EXAMINATION UNDER 37 CFR 1.102(e) (Page 1 of 1)

First Named Inventor:	Timothy P. Heikell	Nonprovisional Application Number (if known):	
Title of Invention:	Systems, Methods and Apparatus for Evaluating Status of Computing Device User		

APPLICANT HEREBY CERTIFIES THE FOLLOWING AND REQUESTS PRIORITIZED EXAMINATION FOR THE ABOVE-IDENTIFIED APPLICATION.

1. The processing fee set forth in 37 CFR 1.17(i)(1), the prioritized examination fee set forth in 37 CFR 1.17(c), and if not already paid, the publication fee set forth in 37 CFR 1.18(d) have been filed with the request. The basic filing fee, search fee, and examination fee are filed with the request or have been already been paid. I understand that any required excess claims fees or application size fee must be paid for the application.

2. I understand that the application may not contain, or be amended to contain, more than four independent claims, more than thirty total claims, or any multiple dependent claims.

3. The applicable box is checked below:

I. ☑ Original Application (Track One) - Prioritized Examination under § 1.102(e)(1)

i. (a) The application is an original nonprovisional utility application filed under 35 U.S.C. 111(a). This certification and request is being filed with the utility application via EFS-Web.

---OR---

(b) The application is an original nonprovisional plant application filed under 35 U.S.C. 111(a). This certification and request is being filed with the plant application in paper.

ii. An executed inventor's oath or declaration under 37 CFR 1.63 or 37 CFR 1.64 for each inventor, **or** the application data sheet meeting the conditions specified in 37 CFR 1.53(f)(3)(i) is filed with the application.

II. ☐ Request for Continued Examination - Prioritized Examination under § 1.102(e)(2)

i. A request for continued examination has been filed with, or prior to, this form.
ii. If the application is a utility application, this certification and request is being filed via EFS-Web.
iii. The application is an original nonprovisional utility application filed under 35 U.S.C. 111(a), or is a national stage entry under 35 U.S.C. 371.
iv. This certification and request is being filed prior to the mailing of a first Office action responsive to the request for continued examination.
v. No prior request for continued examination has been granted prioritized examination status under 37 CFR 1.102(e)(2).

Signature /Bea Koempel-Thomas 58213/	Date August 5, 2022
Name (Print/Typed) Beatrice L. Koempel-Thomas	Practitioner Registration Number 58213

Note: *This form must be signed in accordance with 37 CFR 1.33. See 37 CFR 1.4(d) for signature requirements and certifications. Submit multiple forms if more than one signature is required.**

☐ *Total of _____ forms are submitted.

Google Exhibit 1002
Google v. Nobots

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Serial No. .....
Filing Date .....
Confirmation No. .....
First Named Inventor ..... Timothy P. Heikell
Applicant .....
Group Art Unit .....
Examiner .....
Attorney's Docket No. N106-0002USC4
Title: Systems, Methods and Apparatus for Evaluating Status of Computing Device User

INFORMATION DISCLOSURE STATEMENT

References – See Attached Form PTO/SB/08

The citations listed are submitted in compliance with the duty of disclosure defined in 37 CFR §1.56. Copies of the cited references were cited or submitted with the priority application, which includes U.S. Patent Application No. 16/578,823, and are therefore not submitted herewith pursuant to 37 CFR §1.98(d).

The Examiner is requested to make these citations of official record in this application.

The Commissioner is hereby authorized to charge payment of fees or credit overpayments to Deposit Account No. 12-0769 as set forth in 37 CFR §1.17(p).

Respectfully Submitted,

Dated: August 5, 2022

By: /Bea Koempel-Thomas 58213/
Beatrice L. Koempel-Thomas
Reg. No. 58213

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Serial No. .....
Filing Date .....
Confirmation No. .....
First Named Inventor.....Timothy P. Heikell
Assignee.....Nobots LLC
Group Art Unit .....
Examiner .....
Attorney's Docket No. N106-0002USC4
Title: Systems, Methods and Apparatus for Evaluating Status of Computing Device User

To: Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

From: Beatrice L. Koempel-Thomas (Tel. 509-944-4759; Fax 509-323-8979)
Lee & Hayes, P.C.
601 W. Riverside Avenue, Suite 1400
Spokane, WA 99201
Customer Number 29150

Please enter the instant preliminary amendment prior to examination of this application. No fees are believed to be due for this preliminary amendment.

Drawings Submitted begin on page 2 of this document.

Specification Amendments begin on page 3 of this document.

An Abstract Amendment begins on page 9 of this document.

Remarks begin on page 10 of this document.

DRAWINGS SUBMITTED

Applicant respectfully submits Figures 1-4 corresponding to the originally filed description of priority of the instant application. No new matter is submitted in the drawings.

SPECIFICATION AMENDMENTS

After the title and prior to the first paragraph of the specification, please insert the following new paragraph:

> This application is a continuation application of and claims priority to application serial number 16/578,823 filed September 23, 2019, which is a divisional application of application serial no. 15/457,099 filed March 13, 2017 and issued as US Patent 10,423,885 on September 24, 2019, which claims priority to application serial no. 12/313,502 filed November 19, 2008 and issued as US Patent 9,595,008 on March 14, 2017, which claims priority to provisional application serial no. 61/003,743 filed November 19, 2007, all of which are incorporated herein by reference.

Please amend the paragraph starting on page 2 at line 22 as follows:

> The invention is generally directed to methods, systems and apparatus for assessing the likely user status of a computing device interacting with a server where computing device is in bi-directional operative communication with the server wherein the status is one of a human operator or a computer executable program (also referred to herein as a "bot"). This assessment comprises comparing acquired and/or available data relating to the operation of the computing device to suitable models embodying human user derived data (model data). In most embodiments, the comparison yields a probability value as to one of the status states 140, 330, which then may be used by a program or administrator of the server to permit or deny access and/or operation to the computing device. Because many of the invention embodiments provide a probability result as opposed to a binary result, the invention embodiments avoid the "there is only one right answer"

phenomena inherent in prior art CAPTCHA tests. In other words, rather than placing the burden of proof on the user for functionality/access, which if the user is a human invokes the negative consequences of conventional CAPTCHA tests as previously described, the burden is shifted to the server side of the equation.

Please insert the following after the paragraph ending at line 7 of page 3 (that is, the paragraph ending with "shifted to the server side of the equation"):

BRIEF DESCRIPTION OF THE DRAWINGS

The detailed description is described with reference to the accompanying figures. The use of the same reference numbers in different figures indicates similar or identical components or features.

FIG. 1 illustrates an overview of the process described in this disclosure.

FIG. 2 illustrates in more detail the first step 110 of FIG. 1 (a user interacts with a web page).

FIG. 3 illustrates in more detail the second step 120 of FIG. 1 (the user submits a form to the server).

FIG. 4 illustrates in more detail the third step 130 of FIG. 1 (active and passive data related to the user is analyzed and a human confidence score is generated).

DETAILED DESCRIPTION

Please amend the paragraph starting on page 3 at line 8 as follows:

As used herein, "model data", its equivalents and verb forms comprises data indicative of human interaction with a computing environment and that can be received by a computing device that is physically remote from the sample computing environment and equivalents. Model data comprises two main categories: active model data 220 and passive model data 210. Active model data comprises data acquired from a computing device user's interactions therewith and within the computing environment where such data is not normally stored (logged) or transmitted to a remote location. Such model data includes, without limitation, pointing device vector movements and/or cadence, key stroke combinations and/or cadence, time differentials between stimulus (e.g., display of dialog box, radio button, form field, etc., and/or generation of sound) and user response (e.g., input into dialog box, selection of radio button, completion of form field, new page display request rates, etc., and/or input response to sound), and similar metrics. Generally, such data must be monitored and stored 210, 220 by a program operative on the computing device, which makes the data available to another program, preferably on a server 320, or actively transmits such data to a server. Passive model data comprises data available from a computing device user's interactions therewith and within the computing environment where such data is normally stored (logged) or transmitted to a remote location. Such model data includes, without limitation, browser cookies, destination IP histories, originating IP address, originating IP address traffic data, originating IP address physical location, third party data regarding abusers (including originating IP addresses and physical locations), etc.

Please amend the paragraph starting on page 4 at line 18 as follows:

With the foregoing definitions in mind, operation of the various invention embodiments can be better understood. In a first series of embodiments, a comparison between interest data, acquired prior to delivery of issued data to the client computing device, and model data is performed to ascertain the likely status of the client computing device, i.e., human user or bot 130, 420. In a second series of embodiments, a comparison between monitored data, by definition acquired after delivery of issued data to the client computing device, and model data is performed to ascertain the likely status of the client computing device, i.e., human user or bot 130, 420. In both series of embodiments, acquired and/or available data may be used for comparison with suitable model data. The recited comparisons can take place locally on the computing device, remotely on the originating server, or on a server dedicated to performing such actions and for which subscriptions may be offered in conjunction with methods for providing services according to the methods, apparatus and systems embodiments described herein.

Please amend the paragraph starting on page 5 at line 3 as follows:

While available data represents data that is readily harvestable by query, for example, from the computing device or the computing environment in which the device operates, acquired data requires some form of information capture means. In the various embodiments described herein, the computing device is caused to monitor and retain certain data useful as acquired data for comparison purposes. Such monitoring and retaining means for acquiring data from the computing device comprises, without limitation, modification of (an) existing program(s) (e.g., such means are included in available browsers), a covert program (e.g., many malware applications log keystrokes

and periodically pass them to remote servers for malicious purposes; similar technology can be used to exploit necessary aspects of the invention embodiments), or a servlet/Java applet. If user privacy is a concern, the monitoring and retaining means can remain dormant until activated by, for example, an enabled web site 110.

Please amend the paragraph starting on page 5 at line 14 as follows:

The monitoring and retaining means may also enable transmission of some or all retained data 410, in encrypted or unencrypted form, as may be desired for privacy and security purposes, and/or merely retain the data until requested from, for example, the server, at which time some or all data may be transmitted 120, 310. As described above with reference to the comparison actions 130, 410, such receiving and/or polling actions can be carried out remotely on the originating server or on a server dedicated to performing such actions, if not performed locally on the computing device.

ABSTRACT AMENDMENT

Please add the following abstract on a separate page following the claims of the application:

Methods, systems and apparatus, e.g., non-transitory machine readable medium having stored thereon instructions, for providing a value indicating a judgment of whether a human or an autonomic computer application operating a client computer is interacting with a server, by operations comprising: receive data from the client computer including active data relating to interactions of the client computer with a website of the server and passive data of the client computer; analyze received data from the client computer for indication of a human operating the client computer, wherein the analyzing includes analyzing the received data in conjunction with model data based on human interactions from a prior session with the same website and developing a first analysis value; and provide a request for further data from the client computer when the first analysis value fails to meet the first analysis predetermined criteria.

REMARKS

Applicant respectfully submits Figures 1-4 corresponding to the originally filed description in priority documents of the instant application. Applicant respectfully amends the specification to include: a "Brief Description of the Drawings" heading and section, a "Detailed Description" heading, and reference numerals corresponding to the drawings.

Applicant's representative adds an abstract as supported by the originally filed priority application.

The specification amendments, drawings, and abstract do not add any new matter.

Applicant respectfully requests consideration and allowance of the claims of the application.

Respectfully Submitted,

Lee & Hayes
Representatives for Applicant

Dated: August 5, 2022

By: /Bea Koempel-Thomas 58213/
Beatrice L. Koempel-Thomas
Lee & Hayes
Reg. No. 58213
509-944-4759

Doc Code: PA..
Document Description: Power of Attorney

PTO/AIA/82A (07-13)
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NOTE: This form is to be submitted with the Power of Attorney by Applicant form (PTO/AIA/82B) to identify the application to which the Power of Attorney is directed, in accordance with 37 CFR 1.5, unless the application number and filing date are identified in the Power of Attorney by Applicant form. If neither form PTO/AIA/82A nor form PTO/AIA82B identifies the application to which the Power of Attorney is directed, the Power of Attorney will not be recognized in the application.

Application Number	
Filing Date	
First Named Inventor	Timothy P. Heikell
Title	Systems, Methods and Apparatus for Evaluating Status of Computing Device User
Art Unit	
Examiner Name	
Attorney Docket Number	/ N106 - 0002USC4

SIGNATURE of Applicant or Patent Practitioner

Signature	/Bea Koempel-Thomas 58213/	Date (Optional)	
Name	Beatrice L. Koempel-Thomas	Registration Number	58213
Title (if Applicant is a juristic entity)			
Applicant Name (if Applicant is a juristic entity)			

NOTE: This form must be signed in accordance with 37 CFR 1.33. See 37 CFR 1.4(d) for signature requirements and certifications. If more than one applicant, use multiple forms.

☐ *Total of _____ forms are submitted.

This collection of information is required by 37 CFR 1.131, 1.32, and 1.33. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 3 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

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POWER OF ATTORNEY BY APPLICANT

I hereby revoke all previous powers of attorney given in the application identified in either the attached transmittal letter or the boxes below.

Application Number	Filing Date

(Note: The boxes above may be left blank if information is provided on form PTO/AIA/82A.)

☑ I hereby appoint the Patent Practitioner(s) associated with the following Customer Number as my/our attorney(s) or agent(s), and to transact all business in the United States Patent and Trademark Office connected therewith for the application referenced in the attached transmittal letter (form PTO/AIA/82A) or identified above: 29150

OR

☐ I hereby appoint Practitioner(s) named in the attached list (form PTO/AIA/82C) as my/our attorney(s) or agent(s), and to transact all business in the United States Patent and Trademark Office connected therewith for the patent application referenced in the attached transmittal letter (form PTO/AIA/82A) or identified above. (Note: Complete form PTO/AIA/82C.)

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Firm or Individual Name					
Address					
City		State		Zip	
Country					
Telephone		Email			

I am the Applicant (if the Applicant is a juristic entity, list the Applicant name in the box):

Timothy P. Heikell

☑ Inventor or Joint Inventor (title not required below)

☐ Legal Representative of a Deceased or Legally Incapacitated Inventor (title not required below)

☐ Assignee or Person to Whom the Inventor is Under an Obligation to Assign (provide signer's title if applicant is a juristic entity)

☐ Person Who Otherwise Shows Sufficient Proprietary Interest (e.g., a petition under 37 CFR 1.46(b)(2) was granted in the application or is concurrently being filed with this document) (provide signer's title if applicant is a juristic entity)

SIGNATURE of Applicant for Patent

The undersigned (whose title is supplied below) is authorized to act on behalf of the applicant (e.g., where the applicant is a juristic entity).

Signature	/Timothy P. Heikell/	Date (Optional)	
Name	TIMOTHY P HEIKELL		
Title			

NOTE: Signature - This form must be signed by the applicant in accordance with 37 CFR 1.33. See 37 CFR 1.4 for signature requirements and certifications. If more than one applicant, use multiple forms.

☐ Total of forms are submitted.

This collection of information is required by 37 CFR 1.131, 1.32, and 1.33. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 3 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Serial No. .....
Filing Date .....
Confirmation No. .....
First Named Inventor ..... Timothy P. Heikell
Assignee ..... Nobots LLC
Group Art Unit .....
Examiner .....
Attorney's Docket No. N106-0002USC4
Title: ..... Systems, Methods and Apparatus for Evaluating Status of Computing Device User

To: Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

From: Beatrice L. Koempel-Thomas (Tel. 509-944-4759; Fax 509-323-8979)
Customer Number: 29150
Lee & Hayes, P.C.
601 W. Riverside Avenue, Suite 1400
Spokane, WA 99201

Fees will be paid by credit card through the EFS Web; however, the Commissioner is hereby authorized to charge any deficiency of fees and credit any overpayments to Deposit Account Number 12-0769.

Respectfully Submitted,

Dated: August 5, 2022

By: /Bea Koempel-Thomas 58213/
Beatrice L. Koempel-Thomas
Lee & Hayes, P.C.
Reg. No. 58213
509-944-4759

PTO/AIA/01 (06-12)
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DECLARATION (37 CFR 1.63) FOR UTILITY OR DESIGN APPLICATION USING AN APPLICATION DATA SHEET (37 CFR 1.76)

Title of Invention	Systems, Methods and Apparatus for Evaluating Status of Computing Device User

As the below named inventor, I hereby declare that:

This declaration is directed to:

- ☐ The attached application, or
- ☑ United States application or PCT international application number 15/457,099 filed on 3/13/2017.

The above-identified application was made or authorized to be made by me.

I believe that I am the original inventor or an original joint inventor of a claimed invention in the application.

I hereby acknowledge that any willful false statement made in this declaration is punishable under 18 U.S.C. 1001 by fine or imprisonment of not more than five (5) years, or both.

WARNING:

Petitioner/applicant is cautioned to avoid submitting personal information in documents filed in a patent application that may contribute to identity theft. Personal information such as social security numbers, bank account numbers, or credit card numbers (other than a check or credit card authorization form PTO-2038 submitted for payment purposes) is never required by the USPTO to support a petition or an application. If this type of personal information is included in documents submitted to the USPTO, petitioners/applicants should consider redacting such personal information from the documents before submitting them to the USPTO. Petitioner/applicant is advised that the record of a patent application is available to the public after publication of the application (unless a non-publication request in compliance with 37 CFR 1.213(a) is made in the application) or issuance of a patent. Furthermore, the record from an abandoned application may also be available to the public if the application is referenced in a published application or an issued patent (see 37 CFR 1.14). Checks and credit card authorization forms PTO-2038 submitted for payment purposes are not retained in the application file and therefore are not publicly available.

LEGAL NAME OF INVENTOR

Inventor: Timothy P. Heikell Date (Optional): _____

Signature: T P Heikell

Note: An application data sheet (PTO/SB/14 or equivalent), including naming the entire inventive entity, must accompany this form. Use an additional PTO/AIA/01 form for each additional inventor.

This collection of information is required by 35 U.S.C. 115 and 37 CFR 1.63. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 1 minute to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**
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PTO/SB/08a (02-18)
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INFORMATION DISCLOSURE STATEMENT BY APPLICANT (**Not for submission under 37 CFR 1.99)**		
	Application Number	
	Filing Date	
	First Named Inventor	Timothy P. Heikell
	Art Unit	
	Examiner Name	
	Attorney Docket Number	N106-0002USC4

U.S.PATENTS						
Examiner Initial*	Cite No	Patent Number	Kind Code[1]	Issue Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear
	1	5933498		1999-08-03	Schneck, et al.	
	2	6405922		2002-06-18	Kroll	
	3	6460141		2002-10-01	Olden	
	4	7089241		2006-08-08	Alspector, et al.	
	5	7506170		2009-03-17	Finnegan	
	6	7895653		2011-02-22	Calo, et al.	
	7	8280993		2012-10-02	Awadallah, et al.	
	8	8694244		2014-04-08	Schalk	

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)		
	Application Number	
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	First Named Inventor	Timothy P. Heikell
	Art Unit	
	Examiner Name	
	Attorney Docket Number	N106-0002USC4

	9	8700259		2014-04-15	Schalk	
	10	8706405		2014-04-22	Schalk	
	11	8713657		2014-04-29	Lee	
	12	8738287		2014-05-27	Schalk	
	13	8775235		2014-07-08	Hedley, et al.	
	14	8775236		2014-07-08	Hedley, et al.	
	15	8824659		2014-09-02	Bushey, et al.	
	16	8825379		2014-09-02	Schalk	
	17	8838570		2014-09-16	English	
	18	8903052		2014-12-02	Moore, et al.	
	19	9047458		2015-06-02	Etchegoyen	

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	Art Unit	
	Examiner Name	
	Attorney Docket Number	N106-0002USC4

	20	9088652		2015-07-21	Bushey, et al.	
	21	9152381		2015-10-06	Valentino, et al.	
	22	9208461		2015-12-08	Busa	
	23	9240078		2016-01-19	Hedley, et al.	

If you wish to add additional U.S. Patent citation information please click the Add button.

U.S.PATENT APPLICATION PUBLICATIONS

Examiner Initial*	Cite No	Publication Number	Kind Code[1]	Publication Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear
	1	20050114705	A1	2005-05-26	Reshef, Eran; et al.	
	2	20050144067	A1	2005-06-30	Farahat, Ayman O.; et al.	
	3	20050198158	A1	2005-09-08	Fabre, Patrice M.; et al.	
	4	20050278253	A1	2005-12-15	Meek, Christopher A.; et al.	
	5	20070106737	A1	2007-05-10	Barnes; Thomas H.; et al.	

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)		
	Application Number	
	Filing Date	
	First Named Inventor	Timothy P. Heikell
	Art Unit	
	Examiner Name	
	Attorney Docket Number	N106-0002USC4

	6	20070165911	A1	2007-07-19	Baentsch; Michael; et al.	
	7	20070192419	A1	2007-08-16	Vuong; John; et al.	
	8	20070239604	A1	2007-10-11	O'Connell; Brian M.; et al.	
	9	20070255818	A1	2007-11-01	Tanzer; Terry Owen; et al.	
	10	20070255821	A1	2007-11-01	Ge; Li; et al.	
	11	20080086524	A1	2008-04-10	Afergan; Michael M.; et al.	
	12	20080114624	A1	2008-05-15	Kitts; Brendan James	
	13	20080147456	A1	2008-06-19	Broder; Andrei Zary; et al.	
	14	20080225870	A1	2008-09-18	Sundstrom; Robert J.	
	15	20080263636	A1	2008-10-23	Gusler; Carl P.; et al.	
	16	20080319774	A1	2008-12-25	O'Sullivan; Patrick; et al.	

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)		
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	Filing Date	
	First Named Inventor	Timothy P. Heikell
	Art Unit	
	Examiner Name	
	Attorney Docket Number	N106-0002USC4

	17	20090024971	A1	2009-01-22	Willner; Barry E.; et al.	
	18	20090197815	A1	2009-08-06	Vincenzi; Beatrice; et al.	
	19	20130019290	A1	2013-01-17	Lee; Mark C.	

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FOREIGN PATENT DOCUMENTS

Examiner Initial*	Cite No	Foreign Document Number[3]	Country Code[2] ¡	Kind Code[4]	Publication Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear	T[5]
	1							☐

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NON-PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc), date, pages(s), volume-issue number(s), publisher, city and/or country where published.	T[5]
	1	Al-Qayedi, et. al., "Combined Web/Mobile Authentication for Secure Web Access Control", WCNC 2004, IEEE Communications Society, 2004, 5 pages.	☐
	2	Copy of Daniel Lopresti CV, dated April 2022, 56 pages.	☐
	3	Copy of File History for U.S. Patent No. 10/423,885 filed March 13, 2017, 226 pages.	☐

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)		
	Application Number	
	Filing Date	
	First Named Inventor	Timothy P. Heikell
	Art Unit	
	Examiner Name	
	Attorney Docket Number	N106-0002USC4

	4	Copy of File History for U.S. Patent No. 9,595,008 filed November 19, 2008, 137 pages.	☐
	5	"Fingerprint Reader: Replace Passwords with Your Fingerprint" retrieved on the internet on August 16, 2018 at <<https://web.archive.org/web/20061230123302/http://www.microsoft.com/hardware/houseandkeyboard/productdetails.aspxZpid=036>> 1 page.	☐
	6	Copy of Good Prior Art Stipulation dated April 29, 2022, 2 pages.	☐
	7	Copy of Initial Related Complaint from United States District Court, Western District of Texas, Waco Division, Case No. 6:21-cn1290, dated December 20, 2021, 39 pages.	☐
	8	Copy of Declaration of Daniel P. Lopresti, Ph.D. for U.S. Patent No. 9,595,008, dated 4/29/2022, 120 pages.	☐
	9	Copy of Declaration of Daniel P. Lopresti, Ph.D. for U.S. Patent No. 10,423,885, dated 4/29/2022, 119 pages.	☐
	10	McCausland et al.," A Proactice Risk-Awar Robitic Sensor Network for Critical Infrastructure Protection", IEEE International Conference on Computational Intelligence and Virtual Environments for Measurement Systems and Applications (CIVEMSA), April 2013, pp. 132-137	☐
	11	"Microsoft Fingerprint Reader" retrieved from the internet on August 16, 2018 at << https//en.wikipedia.org/wikiMicrosoft_Fingerprint_Reader>>, 2 pages.	☐
	12	"Most people have at least 15 username and password combinations to remember" retrieved from the internet on August 16, 2018 at <<https://web.archive.org/web/20050111041404/http://www.microsoft.com:80/hardware/mouseandkeyboard/features/docs/fingerprint.html >> 12 pages.	☐
	13	Office Action for US Patent Application 16/578,823, mailed on 04/05/2022, Heikell, "Systems, Methods and Apparatus for Evaluating Status of Computing Device User", 10 pages	☐
	14	Office action for US Patent Application 12/313,502, mailed on 9/16/2011, Heikell, "Systems, Methods and Apparatus for Evaluating Status of Computing Device User", 9 pages.	☐

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)		
	Application Number	
	Filing Date	
	First Named Inventor	Timothy P. Heikell
	Art Unit	
	Examiner Name	
	Attorney Docket Number	N106-0002USC4

	15	Office Action for US Patent Application 15/457,099, mailed on 09/25/2018, Heikell, "Systems, Methods and Apparatus for Evaluating Status of Computing Device User", 16 pages.	☐
	16	Pal et al., "Trust Assessment from Observed Behavior: Toward and Essential Service for Trusted Network Computing", Fifth IEEE International Symposium on Network Computing and Applications (NCA'06), July 2006, pp. 285-292	☐
	17	Copy of Petition for Inter Partes Review for U.S. Patent No. 10,423,885 dated April 29, 2022, 94 pages.	☐
	18	Copy of Petition for Inter Partes Review for U.S. Patent No. 9,595,008 dated April 29, 2022, 86 pages.	☐
	19	"Researcher Hacks Microsoft Fingerprint Reader" retrieved from the internet on August 16, 2018 at <<https://www.pcworld.com/article/124978/article.html>> 3 pages.	☐
	20	Temple et al., "Testability Modeling and Analysis of a Rocket Engine Test Stand", IEEE Aerospace Conference, January 2005, pp. 3874-3895	☐
	21	"Tired of passwords? Replace them with your fingerprint" retrieved from the internet on August 16, 2018 at <<https://web.archive.org/web/20040926002804/http://www.microsoft.com:80hardware;mouseandkeyboard/features/fingerprint.mspx>>, 1 page.	☐

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EXAMINER SIGNATURE

Examiner Signature		Date Considered	

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through a citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

[1] See Kind Codes of USPTO Patent Documents at www.USPTO.GOV or MPEP 901.04. [2] Enter office that issued the document, by the two-letter code (WIPO Standard ST.3). [3] For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. [4] Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. [5] Applicant is to place a check mark here if English language translation is attached.

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)		
	Application Number	
	Filing Date	
	First Named Inventor	Timothy P. Heikell
	Art Unit	
	Examiner Name	
	Attorney Docket Number	N106-0002USC4

CERTIFICATION STATEMENT

Please see 37 CFR 1.97 and 1.98 to make the appropriate selection(s):

☐ That each item of information contained in the information disclosure statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of the information disclosure statement. See 37 CFR 1.97(e)(1).

OR

☐ That no item of information contained in the information disclosure statement was cited in a communication from a foreign patent office in a counterpart foreign application, and, to the knowledge of the person signing the certification after making reasonable inquiry, no item of information contained in the information disclosure statement was known to any individual designated in 37 CFR 1.56(c) more than three months prior to the filing of the information disclosure statement. See 37 CFR 1.97(e)(2).

☐ See attached certification statement.

☐ The fee set forth in 37 CFR 1.17 (p) has been submitted herewith.

☒ A certification statement is not submitted herewith.

SIGNATURE

A signature of the applicant or representative is required in accordance with CFR 1.33, 10.18. Please see CFR 1.4(d) for the form of the signature.

Signature	/Bea Koempel-Thomas 58213/	Date (YYYY-MM-DD)	2022-08-05
Name/Print	Beatrice L. Koempel-Thomas	Registration Number	58213

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 1 hour to complete, including gathering, preparing and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

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The Privacy Act of 1974 (P.L. 93-579) requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b)(2); (2) furnishing of the information solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent application or patent. If you do not furnish the requested information, the U.S. Patent and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abandonment of the application or expiration of the patent.

The information provided by you in this form will be subject to the following routine uses:

1. The information on this form will be treated confidentially to the extent allowed under the Freedom of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C. 552a). Records from this system of records may be disclosed to the Department of Justice to determine whether the Freedom of Information Act requires disclosure of these record s.

2. A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.

3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.

4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).

5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.

6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).

7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (i.e., GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.

8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspections or an issued patent.

9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

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Application Data Sheet 37 CFR 1.76	Attorney Docket Number	N106-0002USC4
	Application Number	
Title of Invention	Systems, Methods and Apparatus for Evaluating Status of Computing Device User	

The application data sheet is part of the provisional or nonprovisional application for which it is being submitted. The following form contains the bibliographic data arranged in a format specified by the United States Patent and Trademark Office as outlined in 37 CFR 1.76.
This document may be completed electronically and submitted to the Office in electronic format using the Electronic Filing System (EFS) or the document may be printed and included in a paper filed application.

Secrecy Order 37 CFR 5.2:

☐ Portions or all of the application associated with this Application Data Sheet may fall under a Secrecy Order pursuant to 37 CFR 5.2 (Paper filers only. Applications that fall under Secrecy Order may not be filed electronically.)

Inventor Information:

Inventor 1 — Remove

Legal Name

Prefix	Given Name	Middle Name	Family Name	Suffix
	Timothy	P.	Heikell	

Residence Information (Select One) ● US Residency ○ Non US Residency ○ Active US Military Service

City	Renton	State/Province	WA	Country of Residence	US

Mailing Address of Inventor:

Address 1	13946 147th Pl. SE
Address 2	

City	Renton	State/Province	WA
Postal Code	98059	Country	US

All Inventors Must Be Listed - Additional Inventor Information blocks may be generated within this form by selecting the **Add** button. — Add

Correspondence Information:

Enter either Customer Number or complete the Correspondence Information section below.
For further information see 37 CFR 1.33(a).

☐ **An Address is being provided for the correspondence Information of this application.**

Customer Number	29150		
Email Address		Add Email	Remove Email

Application Information:

Title of the Invention	Systems, Methods and Apparatus for Evaluating Status of Computing Device User		
Attorney Docket Number	N106-0002USC4	Small Entity Status Claimed	☒
Application Type	Nonprovisional		
Subject Matter	Utility		
Total Number of Drawing Sheets (if any)	4	Suggested Figure for Publication (if any)	

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Application Data Sheet 37 CFR 1.76	Attorney Docket Number	N106-0002USC4
	Application Number	
Title of Invention	Systems, Methods and Apparatus for Evaluating Status of Computing Device User	

Filing By Reference:

Only complete this section when filing an application by reference under 35 U.S.C. 111(c) and 37 CFR 1.57(a). Do not complete this section if application papers including a specification and any drawings are being filed. Any domestic benefit or foreign priority information must be provided in the appropriate section(s) below (i.e., "Domestic Benefit/National Stage Information" and "Foreign Priority Information").

For the purposes of a filing date under 37 CFR 1.53(b), the description and any drawings of the present application are replaced by this reference to the previously filed application, subject to conditions and requirements of 37 CFR 1.57(a).

Application number of the previously filed application	Filing date (YYYY-MM-DD)	Intellectual Property Authority or Country

Publication Information:

☐ Request Early Publication (Fee required at time of Request 37 CFR 1.219)

☐ **Request Not to Publish.** I hereby request that the attached application not be published under 35 U.S.C. 122(b) and certify that the invention disclosed in the attached application **has not and will not** be the subject of an application filed in another country, or under a multilateral international agreement, that requires publication at eighteen months after filing.

Representative Information:

Representative information should be provided for all practitioners having a power of attorney in the application. Providing this information in the Application Data Sheet does not constitute a power of attorney in the application (see 37 CFR 1.32).
Either enter Customer Number or complete the Representative Name section below. If both sections are completed the customer Number will be used for the Representative Information during processing.

Please Select One:	● Customer Number	US Patent Practitioner	○ Limited Recognition (37 CFR 11.9)
Customer Number	29150		

Domestic Benefit/National Stage Information:

This section allows for the applicant to either claim benefit under 35 U.S.C. 119(e), 120, 121, 365(c), or 386(c) or indicate National Stage entry from a PCT application. Providing benefit claim information in the Application Data Sheet constitutes the specific reference required by 35 U.S.C. 119(e) or 120, and 37 CFR 1.78.
When referring to the current application, please leave the "Application Number" field blank.

Prior Application Status	Pending		Remove
Application Number	Continuity Type	Prior Application Number	Filing or 371(c) Date (YYYY-MM-DD)
	Continuation of	16/578823	2019-09-23

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Application Data Sheet 37 CFR 1.76	Attorney Docket Number	N106-0002USC4
	Application Number	
Title of Invention	Systems, Methods and Apparatus for Evaluating Status of Computing Device User	

Prior Application Status	Patented				Remove
Application Number	Continuity Type	Prior Application Number	Filing Date (YYYY-MM-DD)	Patent Number	Issue Date (YYYY-MM-DD)
16/578823	Division of	15/457099	2017-03-13	10423885	2019-09-24
Prior Application Status	Patented				Remove
Application Number	Continuity Type	Prior Application Number	Filing Date (YYYY-MM-DD)	Patent Number	Issue Date (YYYY-MM-DD)
15/457099	Continuation of	12313502	2008-11-19	9595008	2017-03-14
Prior Application Status	Expired				Remove
Application Number	Continuity Type	Prior Application Number	Filing or 371(c) Date (YYYY-MM-DD)		
12313502	Claims benefit of provisional	61003743	2007-11-19		

Additional Domestic Benefit/National Stage Data may be generated within this form by selecting the **Add** button. Add

Foreign Priority Information:

This section allows for the applicant to claim priority to a foreign application. Providing this information in the application data sheet constitutes the claim for priority as required by 35 U.S.C. 119(b) and 37 CFR 1.55. When priority is claimed to a foreign application that is eligible for retrieval under the priority document exchange program (PDX)[i] the information will be used by the Office to automatically attempt retrieval pursuant to 37 CFR 1.55(i)(1) and (2). Under the PDX program, applicant bears the ultimate responsibility for ensuring that a copy of the foreign application is received by the Office from the participating foreign intellectual property office, or a certified copy of the foreign priority application is filed, within the time period specified in 37 CFR 1.55(g)(1).

Remove

Application Number	Country[i]	Filing Date (YYYY-MM-DD)	Access Code[i] (if applicable)

Additional Foreign Priority Data may be generated within this form by selecting the **Add** button. Add

Statement under 37 CFR 1.55 or 1.78 for AIA (First Inventor to File) Transition Applications

☐ This application (1) claims priority to or the benefit of an application filed before March 16, 2013 and (2) also contains, or contained at any time, a claim to a claimed invention that has an effective filing date on or after March 16, 2013.
NOTE: By providing this statement under 37 CFR 1.55 or 1.78, this application, with a filing date on or after March 16, 2013, will be examined under the first inventor to file provisions of the AIA.

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Application Data Sheet 37 CFR 1.76	Attorney Docket Number	N106-0002USC4
	Application Number	
Title of Invention	Systems, Methods and Apparatus for Evaluating Status of Computing Device User	

Authorization or Opt-Out of Authorization to Permit Access:

When this Application Data Sheet is properly signed and filed with the application, applicant has provided written authority to permit a participating foreign intellectual property (IP) office access to the instant application-as-filed (see paragraph A in subsection 1 below) and the European Patent Office (EPO) access to any search results from the instant application (see paragraph B in subsection 1 below).

Should applicant choose not to provide an authorization identified in subsection 1 below, applicant **must opt-out** of the authorization by checking the corresponding box A or B or both in subsection 2 below.

NOTE: This section of the Application Data Sheet is **ONLY** reviewed and processed with the **INITIAL** filing of an application. After the initial filing of an application, an Application Data Sheet cannot be used to provide or rescind authorization for access by a foreign IP office(s). Instead, Form PTO/SB/39 or PTO/SB/69 must be used as appropriate.

1. Authorization to Permit Access by a Foreign Intellectual Property Office(s)

A. Priority Document Exchange (PDX) - Unless box A in subsection 2 (opt-out of authorization) is checked, the undersigned hereby **grants the USPTO authority** to provide the European Patent Office (EPO), the Japan Patent Office (JPO), the Korean Intellectual Property Office (KIPO), the State Intellectual Property Office of the People's Republic of China (SIPO), the World Intellectual Property Organization (WIPO), and any other foreign intellectual property office participating with the USPTO in a bilateral or multilateral priority document exchange agreement in which a foreign application claiming priority to the instant patent application is filed, access to: (1) the instant patent application-as-filed and its related bibliographic data, (2) any foreign or domestic application to which priority or benefit is claimed by the instant application and its related bibliographic data, and (3) the date of filing of this Authorization. See 37 CFR 1.14(h)(1).

B. Search Results from U.S. Application to EPO - Unless box B in subsection 2 (opt-out of authorization) is checked, the undersigned hereby **grants the USPTO authority** to provide the EPO access to the bibliographic data and search results from the instant patent application when a European patent application claiming priority to the instant patent application is filed. See 37 CFR 1.14(h)(2).

The applicant is reminded that the EPO's Rule 141(1) EPC (European Patent Convention) requires applicants to submit a copy of search results from the instant application without delay in a European patent application that claims priority to the instant application.

2. Opt-Out of Authorizations to Permit Access by a Foreign Intellectual Property Office(s)

☐ A. Applicant **DOES NOT** authorize the USPTO to permit a participating foreign IP office access to the instant application-as-filed. If this box is checked, the USPTO will not be providing a participating foreign IP office with any documents and information identified in subsection 1A above.

☐ B. Applicant **DOES NOT** authorize the USPTO to transmit to the EPO any search results from the instant patent application. If this box is checked, the USPTO will not be providing the EPO with search results from the instant application.

NOTE: Once the application has published or is otherwise publicly available, the USPTO may provide access to the application in accordance with 37 CFR 1.14.

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Application Data Sheet 37 CFR 1.76	Attorney Docket Number	N106-0002USC4
	Application Number	
Title of Invention	Systems, Methods and Apparatus for Evaluating Status of Computing Device User	

Applicant Information:

Providing assignment information in this section does not substitute for compliance with any requirement of part 3 of Title 37 of CFR to have an assignment recorded by the Office.

Applicant 1 Remove

If the applicant is the inventor (or the remaining joint inventor or inventors under 37 CFR 1.45), this section should not be completed. The information to be provided in this section is the name and address of the legal representative who is the applicant under 37 CFR 1.43; or the name and address of the assignee, person to whom the inventor is under an obligation to assign the invention, or person who otherwise shows sufficient proprietary interest in the matter who is the applicant under 37 CFR 1.46. If the applicant is an applicant under 37 CFR 1.46 (assignee, person to whom the inventor is obligated to assign, or person who otherwise shows sufficient proprietary interest) together with one or more joint inventors, then the joint inventor or inventors who are also the applicant should be identified in this section.

Clear

● Assignee	Legal Representative under 35 U.S.C. 117	Joint Inventor
Person to whom the inventor is obligated to assign.	Person who shows sufficient proprietary interest	

If applicant is the legal representative, indicate the authority to file the patent application, the inventor is:

Name of the Deceased or Legally Incapacitated Inventor:

If the Applicant is an Organization check here. ☒

Organization Name	Nobots LLC		
Mailing Address Information For Applicant:			
Address 1	13946 147th Pl. SE		
Address 2			
City	Renton	**State/Province**	WA
Country	US	Postal Code	98059
Phone Number		Fax Number	
Email Address			

Additional Applicant Data may be generated within this form by selecting the Add button. Add

Assignee Information including Non-Applicant Assignee Information:

Providing assignment information in this section does not substitute for compliance with any requirement of part 3 of Title 37 of CFR to have an assignment recorded by the Office.

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Application Data Sheet 37 CFR 1.76	Attorney Docket Number	N106-0002USC4
	Application Number	
Title of Invention	Systems, Methods and Apparatus for Evaluating Status of Computing Device User	

Assignee 1

Complete this section if assignee information, including non-applicant assignee information, is desired to be included on the patent application publication. An assignee-applicant identified in the "Applicant Information" section will appear on the patent application publication as an applicant. For an assignee-applicant, complete this section only if identification as an assignee is also desired on the patent application publication.

Remove

If the Assignee or Non-Applicant Assignee is an Organization check here. ☐

Prefix	**Given Name**	Middle Name	**Family Name**	Suffix

Mailing Address Information For Assignee including Non-Applicant Assignee:

Address 1			
Address 2			
City		**State/Province**	
Country i		Postal Code	
Phone Number		Fax Number	
Email Address			

Additional Assignee or Non-Applicant Assignee Data may be generated within this form by selecting the Add button. Add

Signature:

Remove

NOTE: This Application Data Sheet must be signed in accordance with 37 CFR 1.33(b). **However, if this Application Data Sheet is submitted with the INITIAL filing of the application and either box A or B is not checked in subsection 2 of the "Authorization or Opt-Out of Authorization to Permit Access" section, then this form must also be signed in accordance with 37 CFR 1.14(c).**

This Application Data Sheet **must** be signed by a patent practitioner if one or more of the applicants is a **juristic entity** (e.g., corporation or association). If the applicant is two or more joint inventors, this form must be signed by a patent practitioner, **all** joint inventors who are the applicant, or one or more joint inventor-applicants who have been given power of attorney (e.g., see USPTO Form PTO/AIA/81) on behalf of **all** joint inventor-applicants.

See 37 CFR 1.4(d) for the manner of making signatures and certifications.

Signature	/Bea Koempel-Thomas 58213/			Date (YYYY-MM-DD)	2022-08-05
First Name	Beatrice L.	Last Name	Koempel-Thomas	Registration Number	58213

Additional Signature may be generated within this form by selecting the Add button. Add

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Application Data Sheet 37 CFR 1.76	Attorney Docket Number	N106-0002USC4
	Application Number	
Title of Invention	Systems, Methods and Apparatus for Evaluating Status of Computing Device User	

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2. A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.

3 A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.

4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).

5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent CooperationTreaty.

6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).

7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (i.e., GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.

8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspections or an issued patent.

9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

Electronic Patent Application Fee Transmittal	
Application Number:	
Filing Date:	
Title of Invention:	Systems, Methods and Apparatus for Evaluating Status of Computing Device User
First Named Inventor/Applicant Name:	Timothy P. Heikell
Filer:	Robert Clinton Peck/LeAnn Sassman
Attorney Docket Number:	N106-0002USC4

Filed as Small Entity

Filing Fees for Track I Prioritized Examination - Nonprovisional Application under 35 USC 111(a)

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Basic Filing:				
UTILITY FILING FEE (ELECTRONIC FILING)	4011	1	80	80
UTILITY SEARCH FEE	2111	1	350	350
UTILITY EXAMINATION FEE	2311	1	400	400
REQUEST FOR PRIORITIZED EXAMINATION	2817	1	2100	2100
Pages:				
Claims:				
CLAIMS IN EXCESS OF 20	2202	10	50	500
Miscellaneous-Filing:				

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
PUBL. FEE- EARLY, VOLUNTARY, OR NORMAL	1504	1	0	0
PROCESSING FEE, EXCEPT PROV. APPLS.	2830	1	70	70
Petition:				
Patent-Appeals-and-Interference:				
Post-Allowance-and-Post-Issuance:				
Extension-of-Time:				
Miscellaneous:				
		Total in USD ($)		**3500**

Electronic Acknowledgement Receipt	
EFS ID:	46353225
Application Number:	17882082
International Application Number:	
Confirmation Number:	4844
Title of Invention:	Systems, Methods and Apparatus for Evaluating Status of Computing Device User
First Named Inventor/Applicant Name:	Timothy P. Heikell
Customer Number:	29150
Filer:	Robert Clinton Peck/LeAnn Sassman
Filer Authorized By:	Robert Clinton Peck
Attorney Docket Number:	N106-0002USC4
Receipt Date:	05-AUG-2022
Filing Date:	
Time Stamp:	15:10:26
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	CARD
Payment was successfully received in RAM	$3500
RAM confirmation Number	E202285F10500970
Deposit Account	
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Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1		2usc4app.pdf	630617 d8084666767657364065 29e4e113c73b8083a3d3	yes	14
	Multipart Description/PDF files in .zip description				
	Document Description		**Start**	**End**	
	Specification		1	7	
	Claims		8	14	
Warnings:					
Information:					
2	Drawings-only black and white line drawings	2usc4figs.pdf	60605 ddcfc2485b515c428d1838ebd0ea1c127d7c50f0	no	4
Warnings:					
Information:					
3		2usc4amend.pdf	102482 8be8f81d272fa51339327b2b5a185ef5d0aa71d2	yes	10
	Multipart Description/PDF files in .zip description				
	Document Description		**Start**	**End**	
	Preliminary Amendment		1	1	
	Drawings-only black and white line drawings		2	2	
	Specification		3	7	
	Abstract		8	8	
	Applicant Arguments/Remarks Made in an Amendment		9	10	
Warnings:					

Information:					
4	Track One Request	2usc4track1.pdf	100238 907971c1a7c8c709e390c3c9483306f15ed27fa0	no	1
Warnings:					
Information:					
5	Information Disclosure Statement (IDS) Form (SB08)	2usc4stmnt.pdf	63521 551eaac31b206e820c23f14c3a8569ed729c0b33	no	1
Warnings:					
Information:					
This is not an USPTO supplied IDS fillable form					
6	Power of Attorney	2usc4poa.pdf	210154 b5bd44d4355fbc76e23ecdd571f656db7cfcd94e	no	2
Warnings:					
Information:					
7	Miscellaneous Incoming Letter	2usc4dep.pdf	68808 545928aad56668aa20b6eafccd5153a7b0ecba14	no	1
Warnings:					
Information:					
8	Oath or Declaration filed	2usc4dec.pdf	71853 2dcb9ef371e994411af8bb5ec6a325527c52ff2d	no	1
Warnings:					
Information:					
9	Information Disclosure Statement (IDS) Form (SB08)	2usc4ids2.pdf	81856 9f83e579f66d4345ce14f5f69077cffb7d69015e	no	9
Warnings:					
Information:					
This is not an USPTO supplied IDS fillable form					
10	Application Data Sheet	2QJ1787.PDF	1226917 337986428546416 46f5b26c47ad9c155f6dd4852	no	8
Warnings:					

Information:					
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			Total Files Size (in bytes):	2670460	

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If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

Systems, Methods and Apparatus for Evaluating Status of Computing Device User

Background

The Internet is a fantastic tool for constructive web sites to gather users for a common purpose; however, the Internet is also a fantastic tool for abuse of these same web sites. People who want to take advantage of websites do so by creating automated programs employing various algorithms and routines (hereinafter "bots") that create fictitious accounts or access content for a multitude of reasons.

In an effort to block these bots, builders of web sites have created a variety of tests to determine if the user is a bot or if the user is a human. Initial efforts required a user to simply enter an alphanumeric string into an input field. However, as character recognition engines became more available, such "tests" became easily defeated. What was needed was a more robust form of test – one that couldn't be easily defeated.

Carnegie Mellon University coined the term "CAPTCHA" (Completely Automated Public Turing test to tell Computers and Humans Apart) for these types of tests. A common type of CAPTCHA requires that the user type the letters, digits or characters of a distorted image appearing on the screen. The objective is to create an image that a bot cannot easily parse but that is discernable by a human. Such efforts have been successful in preventing non-adaptive software from recognizing the imaged characters, but people intent on abusing these sites have designed ways to circumvent the CAPTCHA, such as through specially tuned character recognition programs. A brief survey of the Internet will reveal many resources that describe how to tune and/or use character recognition to decipher CAPTCHA including aiCaptcha, Simon Fraser University and PWNtcha.

The result of the foregoing is that while CAPTCHAs are becoming increasingly more difficult for bots, they are also becoming more difficult and/or burdensome for human users. In certain instances, the desire to defeat the bots has resulted in images that are so distorted that some human users cannot decipher the images. This is particularly true with users having a visual deficiency or imparity. As a partial solution to this escalation of perception difficulty,

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some web sites have begun adding a link to a sound file that will speak the characters, but these sound files are also being drastically distorted to protect against being discerned by bots through speech pattern matching algorithms. Other web sites like Facebook.com, have gone so far as to adopt a practice requiring deciphering two distorted word images to increase the complexity for bots. While perhaps achieving the stated objective, the collateral effect is to exacerbate the existing burden to human users.

Current CAPTCHA technology is visual or auditory in nature, requiring the human user to answer a test that should be simple to most humans but difficult for non-humans, e.g., bots. Visual CAPTCHA using distorted images is widely used as the primary test by nearly every top Internet site including Yahoo, Google, You Tube, Microsoft's Live ID, MySpace, Facebook, Wikipedia, Craigs List. By using solely visual testing criteria, nearly all users will be able to invoke the requested action; not all users have functioning audio equipment or environments such as libraries may not permit such use.

A positive user experience is critical to the success and increased popularity of a given website. Designers of web sites go to great lengths to ensure their website is as user friendly as possible. Carnegie Mellon University estimates that 60 million CAPTCHA tests are deciphered every day and with an average time spent of 10 seconds, requiring a total of 150,000 hours of work spent every day trying to protect web sites from bots. Reducing or eliminating the requirement of a user having to decipher CAPTCHA is one more way websites can create a more positive user experience for their visitors and minimize opportunity costs.

Summary of the Invention

The invention is generally directed to methods, systems and apparatus for assessing the likely user status of a computing device interacting with a server where computing device is in bi-directional operative communication with the server wherein the status is one of a human operator or a computer executable program (also referred to herein as a "bot"). This assessment comprises comparing acquired and/or available data relating to the operation of the computing device to suitable models embodying human user derived data (model data). In most embodiments, the comparison yields a probability value as to one of the status states,

which then may be used by a program or administrator of the server to permit or deny access and/or operation to the computing device. Because many of the invention embodiments provide a probability result as opposed to a binary result, the invention embodiments avoid the "there is only one right answer" phenomena inherent in prior art CAPTCHA tests. In other words, rather than placing the burden of proof on the user for functionality/access, which if the user is a human invokes the negative consequences of conventional CAPTCHA tests as previously described, the burden is shifted to the server side of the equation.

As used herein, "model data", its equivalents and verb forms comprises data indicative of human interaction with a computing environment and that can be received by a computing device that is physically remote from the sample computing environment and equivalents. Model data comprises two main categories: active model data and passive model data. Active model data comprises data acquired from a computing device user's interactions therewith and within the computing environment where such data is not normally stored (logged) or transmitted to a remote location. Such model data includes, without limitation, pointing device vector movements and/or cadence, key stroke combinations and/or cadence, time differentials between stimulus (e.g., display of dialog box, radio button, form field, etc., and/or generation of sound) and user response (e.g., input into dialog box, selection of radio button, completion of form field, new page display request rates, etc., and/or input response to sound), and similar metrics. Generally, such data must be monitored and stored by a program operative on the computing device, which makes the data available to another program, preferably on a server, or actively transmits such data to a server. Passive model data comprises data available from a computing device user's interactions therewith and within the computing environment where such data is normally stored (logged) or transmitted to a remote location. Such model data includes, without limitation, browser cookies, destination IP histories, originating IP address, originating IP address traffic data, originating IP address physical location, third party data regarding abusers (including originating IP addresses and physical locations), etc.

Also as used herein, the term "available data", its equivalents and verb forms comprises data associated with a computing device's operation and its interaction with a computing

environment, such as the Internet, that is generally recorded within the computing device and/or by other devices that have been affected by the computing device's operation – this is also a type of passive data; the term "acquired data", its equivalents and verb forms comprises data associated with a computing device's operation and its interaction with a computing environment, such as the Internet, that is generally not recorded within the computing device and/or by other devices that have been affected by the computing device's operation, but at least some data of which has/have been recorded and/or transmitted to a remote location, such as a server – this is a type of active data.

In addition to the foregoing, the term "issued data", its equivalents and verb forms comprises data generated by a server or other computing device that is not the same as the computing device for which the assessment as to user status is being performed; "monitored data", its equivalents and verb forms comprises active or passive data, whether available or acquired, obtained from the computing device, or as a result of its external interactions, after the generation of issued data; "interest data", its equivalents and verb forms comprises active or passive data, whether available or acquired, that correlates to any data within model data, whether obtained prior to or after the generation of issued data. Thus, interest data includes time independent available data and acquired data, unless qualified differently.

With the foregoing definitions in mind, operation of the various invention embodiments can be better understood. In a first series of embodiments, a comparison between interest data, acquired prior to delivery of issued data to the client computing device, and model data is performed to ascertain the likely status of the client computing device, i.e., human user or bot. In a second series of embodiments, a comparison between monitored data, by definition acquired after delivery of issued data to the client computing device, and model data is performed to ascertain the likely status of the client computing device, i.e., human user or bot. In both series of embodiments, acquired and/or available data may be used for comparison with suitable model data. The recited comparisons can take place locally on the computing device, remotely on the originating server, or on a server dedicated to performing such actions

and for which subscriptions may be offered in conjunction with methods for providing services according to the methods, apparatus and systems embodiments described herein.

While available data represents data that is readily harvestable by query, for example, from the computing device or the computing environment in which the device operates, acquired data requires some form of information capture means. In the various embodiments described herein, the computing device is caused to monitor and retain certain data useful as acquired data for comparison purposes. Such monitoring and retaining means for acquiring data from the computing device comprises, without limitation, modification of (an) existing program(s) (e.g., such means are included in available browsers), a covert program (e.g., many malware applications log keystrokes and periodically pass them to remote servers for malicious purposes; similar technology can be used to exploit necessary aspects of the invention embodiments), or a servlet/Java applet. If user privacy is a concern, the monitoring and retaining means can remain dormant until activated by, for example, an enabled web site.

The monitoring and retaining means may also enable transmission of some or all retained data, in encrypted or unencrypted form, as may be desired for privacy and security purposes, and/or merely retain the data until requested from, for example, the server, at which time some or all data may be transmitted. As described above with reference to the comparison actions, such receiving and/or polling actions can be carried out remotely on the originating server or on a server dedicated to performing such actions, if not performed locally on the computing device.

From the foregoing, it can be seen that implementation of the invention embodiments can be accomplished exclusively from the server side; it is not necessary to distribute or install in the conventional sense client side software. Existing available browsers and operating systems provide the means necessary to temporarily install logging code, if such is elected. Moreover, the methods, and associated systems and apparatus, described herein are highly transparent to the user, thereby achieving an objective of enhancing the user's experience of a web site employing bot assessment protocols.

DESCRIPTION OF AN INVENTION EMBODIMENT

A primary objective of bot creation is to autonomously access data and/or functionality of a target server as quickly as possible. By assessing user biometrics having a time domain, the time variable becomes a necessary component to accessing the data and/or functionality of the server. Because such assessment has heretofore been absent as a valid CAPTCHA marker of a human user, and more importantly because proper data input would necessarily slow the process, the likelihood of bot penetration has been significantly reduced.

An embodiment of the invention employs a first layer of testing that simply checks if there were valid mouse movements and/or key strokes inputted by the user of a computing device that is attempting to access a server resource "protected" from bots. This basic "if-then" check is essentially without overhead since there are no computations being carried out. Checking for the existence of the target activity therefore represents a first pass evaluation; if the bot is not programmed to include pseudo biometric data, further access is denied. In other words, if no activity is recorded there is a very high probability that the user is actually a bot.

A fundamental premise of robust biometrics is that a given dataset for each person is unique. Therefore, if the dataset is sufficiently robust, it is impossible to have duplicative input data unless the input data was derived from a machine. Exploiting this premise allows a second level knockout assessment to deny user access if the input data exactly (or statistically sufficiently) matches previously recorded data. Of course, the skilled practitioner employing this method can select (either explicitly or via programming) sample points of a dataset for comparison as opposed to all data, thereby reducing computational overhead and storage issues. Alternatively, if samples are used, an exact match could then invoke a more intensive comparison with the same stored datasets, where again access can be denied when an exact or statistically sufficient match is found.

In the foregoing two assessments, an object has been to ferret out bots in an efficient and low overhead manner by exploiting intrinsic design limitations. However, it is possible that a bot designer could spoof these assessment means by, for example, running many bots in parallel wherein intrinsic delays in CPU processing and bandwidth would introduce inherent

time delays associated with the very inputs being assessed. Therefore, more robust assessment means may be employed to ascertain the presence of a bot.

In robust embodiments of the invention, a third layer of testing may be employed that compares recorded pointer movements and key strokes to previously recorded activity for a given input page that was knowingly created by humans. Thus, as input data is collected for a given page, patterns will emerge that are unique to human activity. Subsequently recorded activity that is inconsistent with these patterns would indicate the potential that the user is a bot. Access could then be denied, or further CAPTCHA tests presented. Alternatively, access could be granted since no lock is pick proof and an object of the invention embodiments is to minimize user exposure to CAPTCHA tests.

What is claimed:

1. A non-transitory machine readable medium having stored thereon instructions for performing a method for generating a value indicative of a likelihood that a human or autonomic computer application is operating a client computer attempting access to a protected page of a website, which when executed by at least one machine, causes the at least one machine to perform operations comprising:

provide data collection data that causes the client computer to collect interaction data comprising both active data relating to interactions of the client computer with a given page of the website and passive data of the client computer;

receive at least some of the collected interaction data from the client computer as received collected interaction data;

perform a first analysis comprising analyzing at least some of the received collected interaction data in conjunction with model data based on human interactions from a prior session with the same website;

generate a first analysis value based on the first analysis, wherein the client computer is allowed to access the protected page without requiring the client computer operator to decipher a CAPTCHA test if the first analysis value meets a first analysis predetermined criteria;

provide a CAPTCHA test to the client computer when the first analysis value fails to meet the first analysis predetermined criteria;

receive a response of the client computer to the CAPTCHA test;

perform a second analysis comprising assessing accuracy of the response of the client computer to the CAPTCHA test; and

generate a second analysis value based on the second analysis, wherein the client computer is granted access to the protected page based on the second analysis value meeting a second analysis predetermined criteria.

2. The non-transitory machine readable medium of claim 1, further comprising instructions, when executed by the at least one machine, that cause the at least one machine to:

provide an additional CAPTCHA test to the client computer when the second analysis value fails to meet the second analysis predetermined criteria;

receive a response of the client computer to the additional CAPTCHA test;

perform a third analysis comprising assessing the accuracy of the client computer's response to the additional CAPTCHA test; and

generate a third analysis value based on the third analysis, wherein the client computer is granted access to the protected page based on the third analysis value meeting a third analysis predetermined criteria.

3. The non-transitory machine readable medium of claim 1, wherein the data collection data comprises JavaScript code that causes a browser of the client computer to collect the interaction data.

4. The non-transitory machine readable medium of claim 3, wherein the received collected interaction data comprises at least one browser cookie and at least one Internet Protocol (IP) address associated with the client computer, and wherein the step of analyzing at least some of the received collected interaction data in conjunction with model data further includes analyzing the at least one browser cookie and the at least one IP address in conjunction with the model data.

5. The non-transitory machine readable medium of claim 4, analyzing at least some of the received collected interaction data in conjunction with model data includes analyzing manual device input activity of the client computer in conjunction with the model data based on human interaction with the same given page.

6. The non-transitory machine readable medium of claim 5, wherein the manual device input activity comprises mouse movement over a CAPTCHA test prompt.

7. The non-transitory machine readable medium of claim 5, wherein the human interaction from a prior session with the same website includes human interaction of another client computer from the prior session with the same given page.

8. The non-transitory machine readable medium of claim 7, wherein the received collected interaction data comprises keyboard activity of the client computer on the given page and wherein the step of analyzing at least some of the received collected interaction data in conjunction with model data further includes analyzing the keyboard activity in conjunction with the model data.

9. The non-transitory machine readable medium of claim 1, wherein when the first analysis value meets a first analysis predetermined criteria, the client computer is not presented with a CAPTCHA test prior to the client computer being granted access to the protected page.

10. The non-transitory machine readable medium of claim 1, further comprising instructions, when executed by the at least one machine, that cause the at least one machine to decrypt the received collected interaction data.

11. The non-transitory machine readable medium of claim 1, wherein the model data is based on human interaction from a prior session with the same given page.

12. The non-transitory machine readable medium of claim 1, wherein the ability of the client computer to collect interaction data is only active while the client computer is visiting a website enabled with data collection data.

13. The non-transitory machine readable medium of claim 1, further comprising instructions, when executed by the at least one machine, cause the at least one machine to receive the first or second analysis predetermined criteria from an operator or administrator of the website.

14. The non-transitory machine readable medium of claim 1, further comprising instructions, when executed by the at least one machine, that cause the at least one machine to receive from an operator or administrator of the website a number of CAPTCHA tests that will be provided to a client computer after the second analysis value fails to meet the second analysis predetermined criteria.

15. The non-transitory machine readable medium of claim 1, wherein the step of analyzing at least some of the received collected interaction data in conjunction with model data further comprises analyzing mouse and keyboard activity of the client computer in conjunction with mouse and keyboard activity from human interactions from a prior session with the same website.

16. A non-transitory machine readable medium having stored thereon instructions for performing a method for providing a value indicating a judgment of whether a human or an autonomic computer application operating a client computer is interacting with a server, which when executed by at least one machine, causes the at least one machine to perform operations comprising:

provide data collection data requesting data from the client computer;

receive data from the client computer responsive to the data collection data, the received data comprising active data relating to interactions of the client computer with a website of the server and passive data of the client computer;

analyze received data from the client computer for indication of a human or an autonomic computer application operating the client computer, wherein the analyzing includes analyzing the received data in conjunction with model data based on human interactions from a prior

session with the same website and developing a first analysis value; and

provide a request for further data from the client computer when the first analysis value fails to meet the first analysis predetermined criteria.

17. The non-transitory machine readable medium of claim 16, further comprising instructions, when executed by the at least one machine, that cause the at least one machine to:

receive further data from the client computer in response to the request for further data;

performa second level of analyzing on the received further data; and

provide a second analysis value based on the second level of analyzing.

18. The non-transitory machine readable medium of claim 17, wherein the received further data includes the response of the client computer to a CAPTCHA test provided to the client computer.

19. The non-transitory machine readable medium of claim 16, wherein the first analysis value failing to meet the first analysis predetermined criteria indicates that the client computer should not be allowed access to a protected page of the website.

20. The non-transitory machine readable medium of claim 16, wherein the received data includes at least one browser cookie, at least one IP address and manual input device activity, and the analyzing includes analyzing the at least one browser cookie, the at least one IP address, and the manual input device activity in conjunction with model data based on human interactions from a prior session with the same website.

21. The non-transitory machine readable medium of claim 16, wherein receiving data responsive to the data collection data includes decrypting the received data.

22. A non-transitory machine readable medium having stored thereon instructions for performing a method for providing a value indicating a judgment of whether a human or an autonomic computer application operating a client computer is interacting with a server, which when executed by at least one machine, causes the at least one machine to perform operations comprising:

provide instructions that allow client computer interactions with a website of the server to be remotely monitored;

receive monitored data originating with the client computer, the monitored data comprising active data relating to interactions of the client computer with the website and passive data of the client computer;

analyze the received monitored data for indication of a human or an autonomic computer application operating the client computer, the analyzing including:

perform a first level of analyzing on the received monitored data for any indication that a human may be operating the client computer to obtain a first-level analysis;

perform a second level of analyzing to obtain a second-level analysis, the second-level analysis when the first-level analysis does not meet the first-level analysis predetermined criteria, the second level of analyzing comprising analyzing the received data in conjunction with previously recorded data relating to human interactions from a prior session with the same website; and

provide a second-level analysis value when the second-level analysis meets a second-level analysis predetermined criteria.

23. The non-transitory machine readable medium of claim 22, the analyzing further comprising instructions, when executed by the at least one machine, that cause the at least one machine to:

provide a request for further data from the client computer when the second-level analysis does not meet the second level analysis predetermined criteria.

24. The non-transitory machine readable medium of claim 23, the analyzing further comprising instructions, when executed by the at least one machine, that cause the at least one machine to:

receive further data from the client computer in response to the request for further data;

perform a third-level of analyzing on the received further data; and

provide a third-level analysis value after completion of the third-level of analyzing.

25. The non-transitory machine readable medium of claim 24, wherein the request for further data includes a CAPTCHA test.

26. The non-transitory machine readable medium of claim 22, wherein the received monitored data includes at least one browser cookie and at least one IP address.

27. The non-transitory machine readable medium of claim 26, wherein the received monitored data includes manual device input activity.

28. The non-transitory machine readable medium of claim 27, wherein the manual device input activity comprises mouse movement and key strokes.

29. The non-transitory machine readable medium of claim 22, further comprising instructions, when executed by the at least one machine, that cause the at least one machine to decrypt the received monitored data.

30. The non-transitory machine readable medium of claim 22, wherein the monitored data comprises active data relating to interactions of the client computer with a given page of the website and passive data of the client computer, and the recorded data relates to human interaction from a prior session with the same given page.

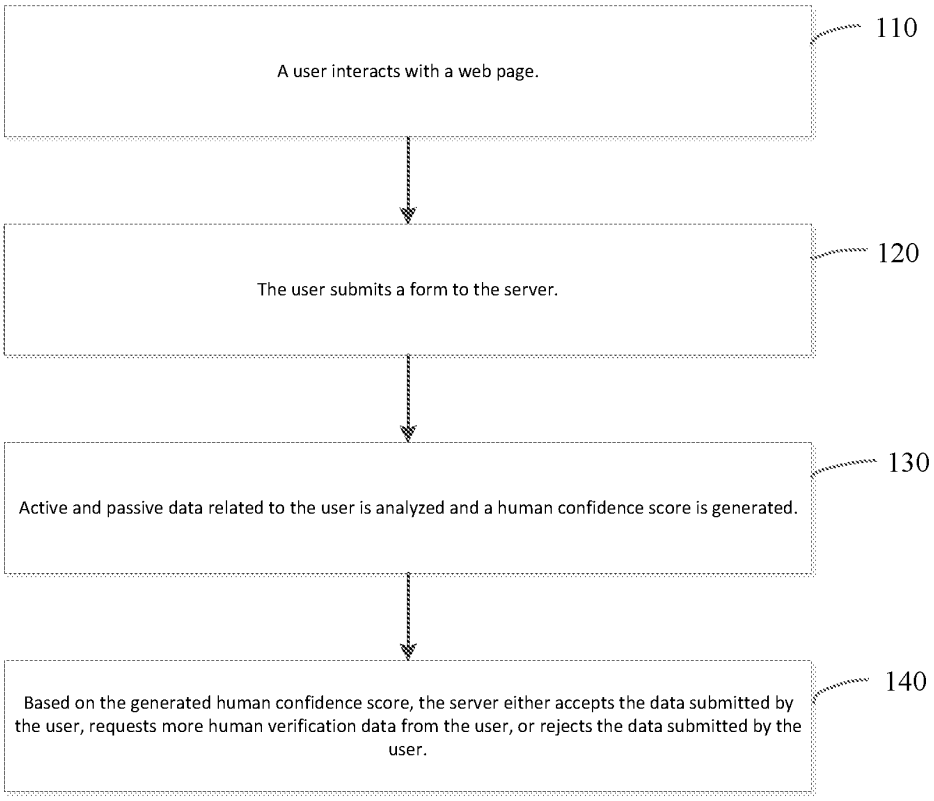

A user interacts with a web page.
110
The user submits a form to the server.
120
Active and passive data related to the user is analyzed and a human confidence score is generated.
130
Based on the generated human confidence score, the server either accepts the data submitted by the user, requests more human verification data from the user, or rejects the data submitted by the user.
140

Fig 1

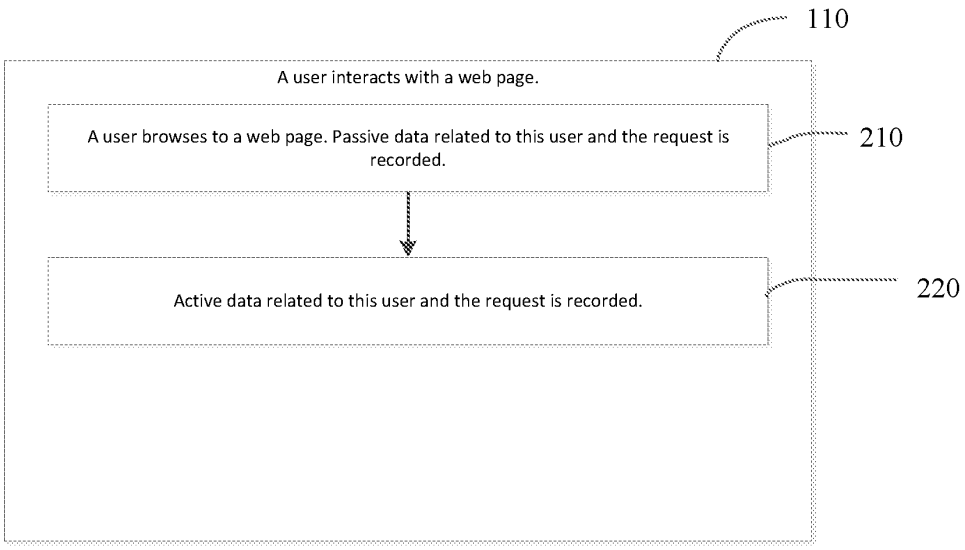

110
A user interacts with a web page.
A user browses to a web page. Passive data related to this user and the request is recorded.
210
Active data related to this user and the request is recorded.
220

Fig 2

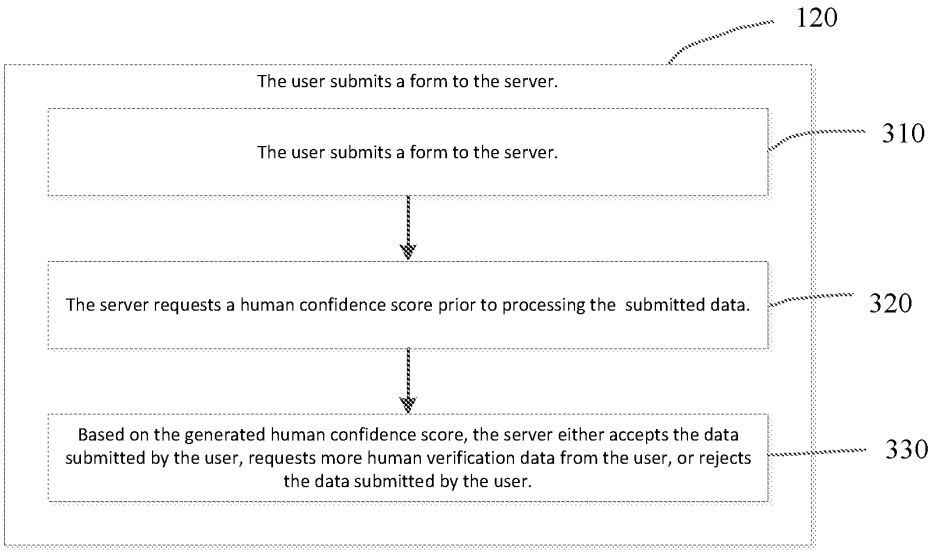

120
The user submits a form to the server.
The user submits a form to the server.
310
The server requests a human confidence score prior to processing the submitted data.
320
Based on the generated human confidence score, the server either accepts the data submitted by the user, requests more human verification data from the user, or rejects the data submitted by the user.
330

Fig 3

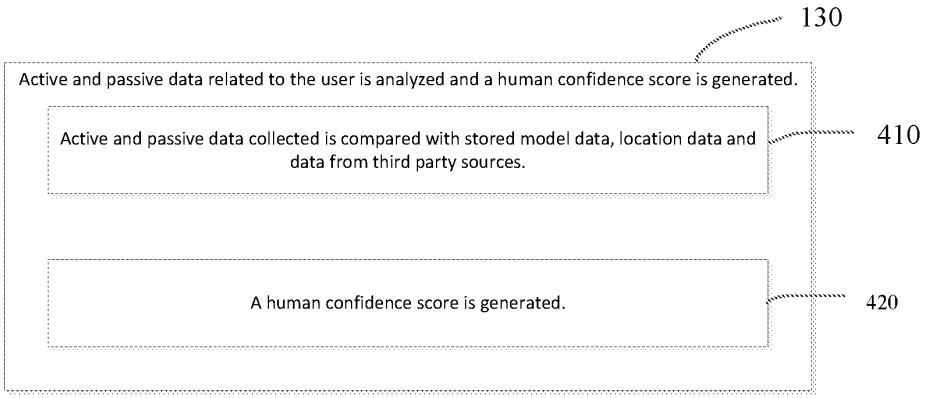

130
Active and passive data related to the user is analyzed and a human confidence score is generated.
Active and passive data collected is compared with stored model data, location data and data from third party sources.
410
A human confidence score is generated.
420

Fig 4

PATENT APPLICATION FEE DETERMINATION RECORD

Substitute for Form PTO-875

Application or Docket Number: 17/882,082

APPLICATION AS FILED - PART I

FOR	(Column 1) NUMBER FILED	(Column 2) NUMBER EXTRA	SMALL ENTITY RATE($)	SMALL ENTITY FEE($)	OR	OTHER THAN SMALL ENTITY RATE($)	OTHER THAN SMALL ENTITY FEE($)
BASIC FEE (37 CFR 1.16(a), (b), or (c))	N/A	N/A	N/A	80		N/A	
SEARCH FEE (37 CFR 1.16(k), (i), or (m))	N/A	N/A	N/A	350		N/A	
EXAMINATION FEE (37 CFR 1.16(o), (p), or (q))	N/A	N/A	N/A	400		N/A	
TOTAL CLAIMS (37 CFR 1.16(i))	30 minus 20 =	* 10	x 50 =	500	OR		
INDEPENDENT CLAIMS (37 CFR 1.16(h))	3 minus 3 =	*	x 240 =	0.00			
APPLICATION SIZE FEE (37 CFR 1.16(s))	If the specification and drawings exceed 100 sheets of paper, the application size fee due is $310 ($155 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).			0.00			
MULTIPLE DEPENDENT CLAIM PRESENT (37 CFR 1.16(j))				0.00			
* If the difference in column 1 is less than zero, enter "0" in column 2.			TOTAL	1330		TOTAL	

APPLICATION AS AMENDED - PART II

		(Column 1) CLAIMS REMAINING AFTER AMENDMENT		(Column 2) HIGHEST NUMBER PREVIOUSLY PAID FOR	(Column 3) PRESENT EXTRA	SMALL ENTITY RATE($)	SMALL ENTITY ADDITIONAL FEE($)	OR	OTHER THAN SMALL ENTITY RATE($)	OTHER THAN SMALL ENTITY ADDITIONAL FEE($)
AMENDMENT A	Total (37 CFR 1.16(i))	*	Minus	**	=	x =		OR	x =	
	Independent (37 CFR 1.16(h))	*	Minus	***	=	x =		OR	x =	
	Application Size Fee (37 CFR 1.16(s))									
	FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))							OR		
						TOTAL ADD'L FEE		OR	TOTAL ADD'L FEE	

		(Column 1) CLAIMS REMAINING AFTER AMENDMENT		(Column 2) HIGHEST NUMBER PREVIOUSLY PAID FOR	(Column 3) PRESENT EXTRA	RATE($)	ADDITIONAL FEE($)	OR	RATE($)	ADDITIONAL FEE($)
AMENDMENT B	Total (37 CFR 1.16(i))	*	Minus	**	=	x =		OR	x =	
	Independent (37 CFR 1.16(h))	*	Minus	***	=	x =		OR	x =	
	Application Size Fee (37 CFR 1.16(s))									
	FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))							OR		
						TOTAL ADD'L FEE		OR	TOTAL ADD'L FEE	

* If the entry in column 1 is less than the entry in column 2, write "0" in column 3.

** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20".

*** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, enter "3".

The "Highest Number Previously Paid For" (Total or Independent) is the highest found in the appropriate box in column 1.

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APPLICATION NUMBER	FILING or 371(c) DATE	GRP ART UNIT	FIL FEE REC'D	ATTY.DOCKET.NO	TOT CLAIMS	IND CLAIMS
17/882,082	08/05/2022	2827	1330	N106-0002USC4	30	3

CONFIRMATION NO. 4844

29150
LEE & HAYES, P.C.
601 W. RIVERSIDE AVENUE
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SPOKANE, WA 99201

FILING RECEIPT

OC000000135916781

Date Mailed: 08/19/2022

Receipt is acknowledged of this non-provisional utility patent application. The application will be taken up for examination in due course. Applicant will be notified as to the results of the examination. Any correspondence concerning the application must include the following identification information: the U.S. APPLICATION NUMBER, FILING DATE, NAME OF FIRST INVENTOR, and TITLE OF INVENTION. Fees transmitted by check or draft are subject to collection.

Please verify the accuracy of the data presented on this receipt. If an error is noted on this Filing Receipt, please submit a written request for a corrected Filing Receipt, including a properly marked-up ADS showing the changes with strike-through for deletions and underlining for additions. If you received a "Notice to File Missing Parts" or other Notice requiring a response for this application, please submit any request for correction to this Filing Receipt with your reply to the Notice. When the USPTO processes the reply to the Notice, the USPTO will generate another Filing Receipt incorporating the requested corrections provided that the request is grantable.

Inventor(s)

Timothy P. Heikell, Renton, WA;

Applicant(s)

Nobots LLC, Renton, WA;

Power of Attorney: None

Domestic Priority data as claimed by applicant

This application is a CON of 16/578,823 09/23/2019
which is a DIV of 15/457,099 03/13/2017 PAT 10423885
which is a CON of 12/313,502 11/19/2008 PAT 9595008
which claims benefit of 61/003,743 11/19/2007

Foreign Applications for which priority is claimed (You may be eligible to benefit from the **Patent Prosecution Highway** program at the USPTO. Please see http://www.uspto.gov for more information.) - None.
Foreign application information must be provided in an Application Data Sheet in order to constitute a claim to foreign priority. See 37 CFR 1.55 and 1.76.

Permission to Access Application via Priority Document Exchange: Yes

Permission to Access Search Results: Yes

Applicant may provide or rescind an authorization for access using Form PTO/SB/39 or Form PTO/SB/69 as appropriate.

If Required, Foreign Filing License Granted: 08/17/2022

The country code and number of your priority application, to be used for filing abroad under the Paris Convention, is **US 17/882,082**

Projected Publication Date: To Be Determined - pending completion of Corrected Papers

Non-Publication Request: No

Early Publication Request: No
**** SMALL ENTITY ****
Title

Systems, Methods and Apparatus for Evaluating Status of Computing Device User

Preliminary Class

365

Statement under 37 CFR 1.55 or 1.78 for AIA (First Inventor to File) Transition Applications: No

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Since the rights granted by a U.S. patent extend only throughout the territory of the United States and have no effect in a foreign country, an inventor who wishes patent protection in another country must apply for a patent in a specific country or in regional patent offices. Applicants may wish to consider the filing of an international application under the Patent Cooperation Treaty (PCT). An international (PCT) application generally has the same effect as a regular national patent application in each PCT-member country. The PCT process **simplifies** the filing of patent applications on the same invention in member countries, but **does not result** in a grant of "an international patent" and does not eliminate the need of applicants to file additional documents and fees in countries where patent protection is desired.

Almost every country has its own patent law, and a person desiring a patent in a particular country must make an application for patent in that country in accordance with its particular laws. Since the laws of many countries differ in various respects from the patent law of the United States, applicants are advised to seek guidance from specific foreign countries to ensure that patent rights are not lost prematurely.

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Title 37, Code of Federal Regulations, 5.11 & 5.15

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APPLICATION NUMBER	FILING OR 371(C) DATE	FIRST NAMED APPLICANT	ATTY. DOCKET NO./TITLE
17/882,082	08/05/2022	Timothy P. Heikell	N106-0002USC4

CONFIRMATION NO. 4844

29150
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SUITE 1400
SPOKANE, WA 99201

FORMALITIES LETTER

OC000000135916762

Date Mailed: 08/19/2022

NOTICE TO FILE CORRECTED APPLICATION PAPERS

Filing Date Granted

An application number and filing date have been accorded to this application. The application is informal since it does not comply with the regulations for the reason(s) indicated below. Applicant is given **TWO MONTHS** from the date of this Notice within which to correct the informalities indicated below. Extensions of time may be obtained by filing a petition accompanied by the extension fee under the provisions of 37 CFR 1.136(a).

The required item(s) identified below must be timely submitted to avoid abandonment:

- A substitute specification excluding claims in compliance with 37 CFR 1.52, 1.121(b)(3), and 1.125 is required. The substitute specification must be submitted with markings and be accompanied by a clean version (without markings) as set forth in 37 CFR 1.125(c) and a statement that the substitute specification contains no new matter (see 37 CFR 1.125(b)). Since a preliminary amendment was present on the filing date of the application and such amendment is part of the original disclosure of the application, the substitute specification must include all of the desired changes made in the preliminary amendment. See 37 CFR 1.115 and 1.215.

Applicant is cautioned that correction of the above items may cause the specification and drawings page count to exceed 100 pages. If the specification and drawings exceed 100 pages, applicant will need to submit the required application size fee.

Replies must be received in the USPTO within the set time period or must include a proper Certificate of Mailing or Transmission under 37 CFR 1.8 with a mailing or transmission date within the set time period. For more information and a suggested format, see Form PTO/SB/92 and MPEP 512.

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A reply may be submitted via electronic filing only by registered users of the appropriate USPTO patent electronic filing system and must include:

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• the item(s) for which a reply period is set forth above.

For more information about electronic filing, contact the Patent Electronic Business Center (EBC) at 1-866-217-9197 or visit at https://www.uspto.gov/ebc.

NOTE: If the reply is not being submitted electronically, a copy of this notice must be included.

Questions about the contents of this notice and the requirements it sets forth should be directed to the Office of Data Management, Application Assistance Unit, at **(571) 272-4000** or **(571) 272-4200** or **1-888-786-0101**.

/ldvan/

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APPLICATION NUMBER	FILING OR 371(C) DATE	FIRST NAMED APPLICANT	ATTY. DOCKET NO./TITLE
17/882,082	08/05/2022	Timothy P. Heikell	N106-0002USC4

CONFIRMATION NO. 4844

IMPROPER CPOA LETTER

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OC000000135902627

Date Mailed: 08/19/2022

NOTICE REGARDING POWER OF ATTORNEY

This is in response to the power of attorney filed 08/05/2022. The power of attorney in this application is not accepted for the reason(s) listed below:

- The power of attorney has not been accepted because the party who is giving power has not been identified. Power of attorney may only be signed by the applicant for patent (37 CFR 1.42) or the patent owner. A party who is not the applicant must become the applicant in accordance with 37 CFR 1.46(c) and appoint any power of attorney in compliance with 37 CFR 3.71 and 3.73. For a reissue application, reexamination proceeding, or supplemental examination proceeding, a patent owner who was not the applicant under 37 CFR 1.46 must appoint any power of attorney in compliance with 37 CFR 3.71 and 3.73. See 37 CFR 1.32(b)(4).

/ynegash/

Office of Data Management, Application Assistance Unit (571) 272-4000, or (571) 272-4200, or 1-888-786-0101

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Serial No. 17/882,082
Filing Date 8/5/2022
Confirmation No. 4844
First Named Inventor ..... Timothy P. Heikell
Assignee ..... Nobots LLC
Group Art Unit 2827
Examiner .....
Attorney's Docket No. N106-0002USC4
Title: Systems, Methods and Apparatus for Evaluating Status of Computing Device User

To: Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

From: Beatrice L. Koempel-Thomas (Tel. 509-944-4759; Fax 509-323-8979)
Lee & Hayes, P.C.
601 W. Riverside Avenue, Suite 1400
Spokane, WA 99201
Customer Number 29150

Please enter the instant preliminary amendment prior to examination of this application. No fees are believed to be due for this preliminary amendment; however, Applicant hereby authorizes the Commissioner to charge any deficiency of fees and credit any overpayments to Deposit Account Number 12-0769.

Claim Amendments begin on page 2 of this document.

Remarks begin on page 10 of this document.

CLAIM AMENDMENTS

1. (Currently Amended) A non-transitory machine readable medium having stored thereon instructions for performing a method for generating a value indicative of a likelihood that a human or autonomic computer application is operating a client computer attempting access to a protected page of a website, which when executed by at least one machine, causes the at least one machine to perform operations comprising:

provide data collection data that causes the client computer to collect ~~interaction data comprising both~~ active data relating to interactions of the client computer with a given page of the website ~~and passive data of the client computer~~;

receive at least some of the collected ~~interaction data~~ active data from the client computer and at least some passive data from the client computer ~~as received collected interaction data~~;

perform a first analysis comprising analyzing at least some of the received ~~collected interaction~~active data and at least some of the received passive data in conjunction with model data based on human interactions from a prior session with the same website;

generate a first analysis value based on the first analysis, wherein the client computer is allowed to access the protected page without requiring an operator of the client computer ~~operator~~ to decipher a CAPTCHA test if the first analysis value meets a first analysis predetermined criteria;

provide a CAPTCHA test to the client computer when the first analysis value fails to meet the first analysis predetermined criteria;

receive a response of the client computer to the CAPTCHA test;

perform a second analysis comprising assessing accuracy of the response of the client computer to the CAPTCHA test; and

generate a second analysis value based on the second analysis, wherein the client computer is granted access to the protected page based on the second analysis value meeting a second analysis predetermined criteria.

2. (Previously Presented) The non-transitory machine readable medium of claim 1, further comprising instructions, when executed by the at least one machine, that cause the at least one machine to:

provide an additional CAPTCHA test to the client computer when the second analysis value fails to meet the second analysis predetermined criteria;

receive a response of the client computer to the additional CAPTCHA test;

perform a third analysis comprising assessing the accuracy of the client computer's response to the additional CAPTCHA test; and

generate a third analysis value based on the third analysis, wherein the client computer is granted access to the protected page based on the third analysis value meeting a third analysis predetermined criteria.

3. (Currently Amended) The non-transitory machine readable medium of claim 1, wherein the data collection data comprises JavaScript code that causes a browser of the client computer to collect the ~~interaction~~active data.

4. (Currently Amended) The non-transitory machine readable medium of claim 3, wherein the received ~~collected interaction~~passive data comprises at least one browser cookie and at least one Internet Protocol (IP) address associated with the client computer, and wherein the step of analyzing at least some of the received ~~collected interaction~~active data and at least some of the received passive data in conjunction with model data further includes analyzing the at least one browser cookie and the at least one IP address in conjunction with the model data.

5. (Currently Amended) The non-transitory machine readable medium of claim 4, wherein analyzing at least some of the received ~~collected interaction~~active data and at least some of the received passive data in conjunction with model data includes

analyzing manual device input activity of the client computer in conjunction with the model data based on human interaction with the same given page.

6. (Previously Presented) The non-transitory machine readable medium of claim 5, wherein the manual device input activity comprises mouse movement over a CAPTCHA test prompt.

7. (Previously Presented) The non-transitory machine readable medium of claim 5, wherein the human interaction from a prior session with the same website includes human interaction of another client computer from the prior session with the same given page.

8. (Currently Amended) The non-transitory machine readable medium of claim 7, wherein the received ~~collected interaction~~active data comprises keyboard activity of the client computer on the given page and wherein the step of analyzing at least some of the received ~~collected interaction~~active data and at least some of the received passive data in conjunction with model data further includes analyzing the keyboard activity in conjunction with the model data.

9. (Previously Presented) The non-transitory machine readable medium of claim 1, wherein when the first analysis value meets a first analysis predetermined criteria, the client computer is not presented with a CAPTCHA test prior to the client computer being granted access to the protected page.

10. (Currently Amended) The non-transitory machine readable medium of claim 1, further comprising instructions, when executed by the at least one machine, that cause the at least one machine to decrypt the received ~~collected interaction data~~active data and the received passive data.

11. (Previously Presented) The non-transitory machine readable medium of claim 1, wherein the model data is based on human interaction from a prior session with the same given page.

12. (Currently Amended) The non-transitory machine readable medium of claim 1, wherein the ability of the client computer to collect ~~interaction~~active data is only active while the client computer is visiting a web page~~site~~ enabled with data collection data.

13. (Previously Presented) The non-transitory machine readable medium of claim 1, further comprising instructions, when executed by the at least one machine, cause the at least one machine to receive the first or second analysis predetermined criteria from an operator or administrator of the website.

14. (Previously Presented) The non-transitory machine readable medium of claim 1, further comprising instructions, when executed by the at least one machine, that cause the at least one machine to receive from an operator or administrator of the website a number of CAPTCHA tests that will be provided to a client computer after the second analysis value fails to meet the second analysis predetermined criteria.

15. (Currently Amended) The non-transitory machine readable medium of claim 1, wherein the step of analyzing at least some of the received ~~collected interaction~~active data and at least some of the received passive data in conjunction with model data further comprises analyzing mouse and keyboard activity of the client computer in conjunction with mouse and keyboard activity from human interactions from a prior session with the same website.

16. (Currently Amended) A non-transitory machine readable medium having stored thereon instructions for performing a method for providing a value indicating a

judgment of whether a human or an autonomic computer application operating a client computer is interacting with a server, which when executed by at least one machine, causes the at least one machine to perform operations comprising:

provide data collection data requesting active and passive data ~~from~~ of the client computer;

receive active and passive data ~~from the client computer~~ responsive to the data collection data, the received ~~data comprising~~ active data relating to interactions of the client computer with a website of the server ~~and passive data of the client computer~~;

analyze the received active data ~~from~~and the ~~client computer~~received passive data for indication of a human or an autonomic computer application operating the client computer, wherein the analyzing includes analyzing the received active data and the received passive data in conjunction with model data based on human interactions from a prior session with the same website and developing a first analysis value; and

provide a request for further data from the client computer when the first analysis value fails to meet the first analysis predetermined criteria.

17. (Currently Amended) The non-transitory machine readable medium of claim 16, further comprising instructions, when executed by the at least one machine, that cause the at least one machine to:

receive further data from the client computer in response to the request for further data;

~~performa~~perform a second level of analyzing on the received further data; and

provide a second analysis value based on the second level of analyzing.

18. (Previously Presented) The non-transitory machine readable medium of claim 17, wherein the received further data includes the response of the client computer to a CAPTCHA test provided to the client computer.

19. (Previously Presented) The non-transitory machine readable medium of claim 16, wherein the first analysis value failing to meet the first analysis predetermined criteria indicates that the client computer should not be allowed access to a protected page of the website.

20. (Currently Amended) The non-transitory machine readable medium of claim 16, wherein the received active data includes manual input device activity and the received passive data includes at least one browser cookie, and at least one IP address ~~and manual input device activity~~, and the analyzing includes analyzing the at least one browser cookie, the at least one IP address, and the manual input device activity in conjunction with model data based on human interactions from a prior session with the same website.

21. (Currently Amended) The non-transitory machine readable medium of claim 16, ~~wherein receiving data responsive~~further comprising instructions, when executed by the at least one machine, that cause the at least one machine to ~~the data collection data includes decrypting~~decrypt the received ~~data~~ active data and the received passive data.

22. (Currently Amended) A non-transitory machine readable medium having stored thereon instructions for performing a method for providing a value indicating a judgment of whether a human or an autonomic computer application operating a client computer is interacting with a server, which when executed by at least one machine, causes the at least one machine to perform operations comprising:

provide instructions that allow client computer interactions with a website of the server to be remotely monitored;

receive monitored data originating with the client computer, the monitored data comprising active data relating to interactions of the client computer with the website and passive data of the client computer;

analyze the received monitored data for indication of a human or an autonomic computer application operating the client computer, the analyzing including:

perform a first level of analyzing on the received monitored data for any indication that a human may be operating the client computer to obtain a first-level analysis;

perform a second level of analyzing to obtain a second-level analysis, ~~the second level analysis~~ when the first-level analysis does not meet ~~the~~ a first-level analysis predetermined criteria, the second level of analyzing comprising analyzing the received monitored data in conjunction with previously recorded data relating to human interactions from a prior session with the same website; and

provide a second-level analysis value when the second-level analysis meets a second-level analysis predetermined criteria.

23. (Previously Presented) The non-transitory machine readable medium of claim 22, the analyzing further comprising instructions, when executed by the at least one machine, that cause the at least one machine to:

provide a request for further data from the client computer when the second-level analysis does not meet the second level analysis predetermined criteria.

24. (Previously Presented) The non-transitory machine readable medium of claim 23, the analyzing further comprising instructions, when executed by the at least one machine, that cause the at least one machine to:

receive further data from the client computer in response to the request for further data;

perform a third-level of analyzing on the received further data; and

provide a third-level analysis value after completion of the third-level of analyzing.

25. (Previously Presented) The non-transitory machine readable medium of claim 24, wherein the request for further data includes a CAPTCHA test.

26. (Previously Presented) The non-transitory machine readable medium of claim 22, wherein the received monitored data includes at least one browser cookie and at least one IP address.

27. (Previously Presented) The non-transitory machine readable medium of claim 26, wherein the received monitored data includes manual device input activity.

28. (Previously Presented) The non-transitory machine readable medium of claim 27, wherein the manual device input activity comprises mouse movement and key strokes.

29. (Previously Presented) The non-transitory machine readable medium of claim 22, further comprising instructions, when executed by the at least one machine, that cause the at least one machine to decrypt the received monitored data.

30. (Previously Presented) The non-transitory machine readable medium of claim 22, wherein the monitored data comprises active data relating to interactions of the client computer with a given page of the website and passive data of the client computer, and the recorded data relates to human interaction from a prior session with the same given page.

REMARKS

Applicant's representative amends claims 1, 3-5, 8, 10, 12, 15-17, and 20-22 without prejudice to or disclaimer of the subject matter previously recited therein.

The amendments do not add any new matter.

Applicant respectfully requests consideration and allowance of the claims of the application.

Respectfully Submitted,

Lee & Hayes
Representatives for Applicant

Dated: September 1, 2022

By: /Bea Koempel-Thomas 58213/
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509-944-4759

Electronic Acknowledgement Receipt	
EFS ID:	46539187
Application Number:	17882082
International Application Number:	
Confirmation Number:	4844
Title of Invention:	Systems, Methods and Apparatus for Evaluating Status of Computing Device User
First Named Inventor/Applicant Name:	Timothy P. Heikell
Customer Number:	29150
Filer:	Robert Clinton Peck/LeAnn Sassman
Filer Authorized By:	Robert Clinton Peck
Attorney Docket Number:	N106-0002USC4
Receipt Date:	01-SEP-2022
Filing Date:	05-AUG-2022
Time Stamp:	18:21:11
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	no

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1		2usc4prelim.pdf	104431 0a3c446322ae778a805cdcfd07a827b19c380a64	yes	10

	Multipart Description/PDF files in .zip description		
	Document Description	**Start**	**End**
	Preliminary Amendment	1	1
	Claims	2	9
	Applicant Arguments/Remarks Made in an Amendment	10	10
Warnings:			
Information:			
	Total Files Size (in bytes):	104431	

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National Stage of an International Application under 35 U.S.C. 371
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New International Application Filed with the USPTO as a Receiving Office
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SYSTEMS, METHODS AND APPARATUS FOR EVALUATING STATUS OF COMPUTING DEVICE USER

This application is a continuation application of and claims priority to application serial number 16/578,823 filed September 23, 2019, which is a divisional application of application serial no. 15/457,099 filed March 13, 2017 and issued as US Patent 10,423,885 on September 24, 2019, which claims priority to application serial no. 12/313,502 filed November 19, 2008 and issued as US Patent 9,595,008 on March 14, 2017, which claims priority to provisional application serial no. 61/003,743 filed November 19, 2007, all of which are incorporated herein by reference.

BACKGROUND

The Internet is a fantastic tool for constructive web sites to gather users for a common purpose; however, the Internet is also a fantastic tool for abuse of these same web sites. People who want to take advantage of websites do so by creating automated programs employing various algorithms and routines (hereinafter "bots") that create fictitious accounts or access content for a multitude of reasons.

In an effort to block these bots, builders of web sites have created a variety of tests to determine if the user is a bot or if the user is a human. Initial efforts required a user to simply enter an alphanumeric string into an input field. However, as character recognition engines became more available, such "tests" became easily defeated. What was needed was a more robust form of test — one that couldn't be easily defeated.

Carnegie Mellon University coined the term "CAPTCHA" (Completely Automated Public Turing test to tell Computers and Humans Apart) for these types of tests. A common type of CAPTCHA requires that the user type the letters, digits or characters of a distorted image appearing on the screen. The objective is to create an image that a bot cannot easily parse but that is discernable by a human. Such efforts have been successful in preventing non-adaptive software from recognizing the imaged characters, but people intent on abusing these sites have designed ways to circumvent the CAPTCHA, such as through specially tuned character recognition programs. A brief survey of the Internet will reveal many resources that describe how to tune and/or use character recognition to decipher CAPTCHA including aiCaptcha, Simon Fraser University and PWNtcha.

The result of the foregoing is that while CAPTCHAs are becoming increasingly more difficult for bots, they are also becoming more difficult and/or burdensome for human users. In certain instances, the desire to defeat the bots has resulted in images that are so distorted that some human users cannot decipher the images. This is particularly true with users having a visual deficiency or imparity. As a partial solution to this escalation of perception difficulty, some web sites have begun adding a link to a sound file that will speak the characters, but these sound files are also being drastically distorted to protect against being discerned by bots through speech pattern matching algorithms. Other web sites like Facebook.com, have gone so far as to adopt a practice requiring deciphering two distorted word images to increase the complexity for bots. While perhaps achieving the stated objective, the collateral effect is to exacerbate the existing burden to human users.

Current CAPTCHA technology is visual or auditory in nature, requiring the human user to answer a test that should be simple to most humans but difficult for non-humans, e.g.,

bots. Visual CAPTCHA using distorted images is widely used as the primary test by nearly every top Internet site including Yahoo, Google, You Tube, Microsoft's Live ID, MySpace, Facebook, Wikipedia, Craigs List. By using solely visual testing criteria, nearly all users will be able to invoke the requested action; not all users have functioning audio equipment or environments such as libraries may not permit such use.

A positive user experience is critical to the success and increased popularity of a given website. Designers of web sites go to great lengths to ensure their website is as user friendly as possible. Carnegie Mellon University estimates that 60 million CAPTCHA tests are deciphered every day and with an average time spent of 10 seconds, requiring a total of 150,000 hours of work spent every day trying to protect web sites from bots. Reducing or eliminating the requirement of a user having to decipher CAPTCHA is one more way websites can create a more positive user experience for their visitors and minimize opportunity costs.

SUMMARY OF THE INVENTION

The invention is generally directed to methods, systems and apparatus for assessing the likely user status of a computing device interacting with a server where computing device is in bi-directional operative communication with the server wherein the status is one of a human operator or a computer executable program (also referred to herein as a "bot"). This assessment comprises comparing acquired and/or available data relating to the operation of the computing device to suitable models embodying human user derived data (model data). In most embodiments, the comparison yields a probability value as to one of the status states 140, 330, which then may be used by a program or administrator of the server to permit

or deny access and/or operation to the computing device. Because many of the invention embodiments provide a probability result as opposed to a binary result, the invention embodiments avoid the "there is only one right answer" phenomena inherent in prior art CAPTCHA tests. In other words, rather than placing the burden of proof on the user for functionality/access, which if the user is a human invokes the negative consequences of conventional CAPTCHA tests as previously described, the burden is shifted to the server side of the equation.

BRIEF DESCRIPTION OF THE DRAWINGS

The detailed description is described with reference to the accompanying figures. The use of the same reference numbers in different figures indicates similar or identical components or features.

FIG. 1 illustrates an overview of the process described in this disclosure.

FIG. 2 illustrates in more detail the first step 110 of FIG. 1 (a user interacts with a web page).

FIG. 3 illustrates in more detail the second step 120 of FIG. 1 (the user submits a form to the server).

FIG. 4 illustrates in more detail the third step 130 of FIG. 1 (active and passive data related to the user is analyzed and a human confidence score is generated).

DETAILED DESCRIPTION

As used herein, "model data", its equivalents and verb forms comprises data indicative of human interaction with a computing environment and that can be received by a computing device that is physically remote from the sample computing environment and equivalents. Model data comprises two main categories: active model data 220 and passive model data 210. Active model data comprises data acquired from a computing device user's interactions therewith and within the computing environment where such data is not normally stored (logged) or transmitted to a remote location. Such model data includes, without limitation, pointing device vector movements and/or cadence, key stroke combinations and/or cadence, time differentials between stimulus (e.g., display of dialog box, radio button, form field, etc., and/or generation of sound) and user response (e.g., input into dialog box, selection of radio button, completion of form field, new page display request rates, etc., and/or input response to sound), and similar metrics. Generally, such data must be monitored and stored 210, 220 by a program operative on the computing device, which makes the data available to another program, preferably on a server 320, or actively transmits such data to a server. Passive model data comprises data available from a computing device user's interactions therewith and within the computing environment where such data is normally stored (logged) or transmitted to a remote location. Such model data includes, without limitation, browser cookies, destination IP histories, originating IP address, originating IP address traffic data, originating IP address physical location, third party data regarding abusers (including originating IP addresses and physical locations), etc.

Also as used herein, the term "available data", its equivalents and verb forms comprises data associated with a computing device's operation and its interaction with a

computing environment, such as the Internet, that is generally recorded within the computing device and/or by other devices that have been affected by the computing device's operation — this is also a type of passive data; the term "acquired data", its equivalents and verb forms comprises data associated with a computing device's operation and its interaction with a computing environment, such as the Internet, that is generally not recorded within the computing device and/or by other devices that have been affected by the computing device's operation, but at least some data of which has/have been recorded and/or transmitted to a remote location, such as a server — this is a type of active data.

In addition to the foregoing, the term "issued data", its equivalents and verb forms comprises data generated by a server or other computing device that is not the same as the computing device for which the assessment as to user status is being performed; "monitored data", its equivalents and verb forms comprises active or passive data, whether available or acquired, obtained from the computing device, or as a result of its external interactions, after the generation of issued data; "interest data", its equivalents and verb forms comprises active or passive data, whether available or acquired, that correlates to any data within model data, whether obtained prior to or after the generation of issued data. Thus, interest data includes time independent available data and acquired data, unless qualified differently.

With the foregoing definitions in mind, operation of the various invention embodiments can be better understood. In a first series of embodiments, a comparison between interest data, acquired prior to delivery of issued data to the client computing device, and model data is performed to ascertain the likely status of the client computing device, i.e., human user or bot 130, 420. In a second series of embodiments, a comparison between monitored data, by definition acquired after delivery of issued data to the client computing

device, and model data is performed to ascertain the likely status of the client computing device, i.e., human user or bot 130, 420. In both series of embodiments, acquired and/or available data may be used for comparison with suitable model data. The recited comparisons can take place locally on the computing device, remotely on the originating server, or on a server dedicated to performing such actions and for which subscriptions may be offered in conjunction with methods for providing services according to the methods, apparatus and systems embodiments described herein.

While available data represents data that is readily harvestable by query, for example, from the computing device or the computing environment in which the device operates, acquired data requires some form of information capture means. In the various embodiments described herein, the computing device is caused to monitor and retain certain data useful as acquired data for comparison purposes. Such monitoring and retaining means for acquiring data from the computing device comprises, without limitation, modification of (an) existing program(s) (e.g., such means are included in available browsers), a covert program (e.g., many malware applications log keystrokes and periodically pass them to remote servers for malicious purposes; similar technology can be used to exploit necessary aspects of the invention embodiments), or a servlet/Java applet. If user privacy is a concern, the monitoring and retaining means can remain dormant until activated by, for example, an enabled web site 110.

The monitoring and retaining means may also enable transmission of some or all retained data 410, in encrypted or unencrypted form, as may be desired for privacy and security purposes, and/or merely retain the data until requested from, for example, the server, at which time some or all data may be transmitted 120, 310. As described above with

reference to the comparison actions 130, 410, such receiving and/or polling actions can be carried out remotely on the originating server or on a server dedicated to performing such actions, if not performed locally on the computing device.

From the foregoing, it can be seen that implementation of the invention embodiments can be accomplished exclusively from the server side; it is not necessary to distribute or install in the conventional sense client side software. Existing available browsers and operating systems provide the means necessary to temporarily install logging code, if such is elected. Moreover, the methods, and associated systems and apparatus, described herein are highly transparent to the user, thereby achieving an objective of enhancing the user's experience of a web site employing bot assessment protocols.

DESCRIPTION OF AN INVENTION EMBODIMENT

A primary objective of bot creation is to autonomously access data and/or functionality of a target server as quickly as possible. By assessing user biometrics having a time domain, the time variable becomes a necessary component to accessing the data and/or functionality of the server. Because such assessment has heretofore been absent as a valid CAPTCHA marker of a human user, and more importantly because proper data input would necessarily slow the process, the likelihood of bot penetration has been significantly reduced.

An embodiment of the invention employs a first layer of testing that simply checks if there were valid mouse movements and/or key strokes inputted by the user of a computing device that is attempting to access a server resource "protected" from bots This basic "if-then" check is essentially without overhead since there are no computations being carried out.

Checking for the existence of the target activity therefore represents a first pass evaluation; if the bot is not programmed to include pseudo biometric data, further access is denied. In other words, if no activity is recorded there is a very high probability that the user is actually a bot.

A fundamental premise of robust biometrics is that a given dataset for each person is unique. Therefore, if the dataset is sufficiently robust, it is impossible to have duplicative input data unless the input data was derived from a machine. Exploiting this premise allows a second level knockout assessment to deny user access if the input data exactly (or statistically sufficiently) matches previously recorded data. Of course, the skilled practitioner employing this method can select (either explicitly or via programming) sample points of a dataset for comparison as opposed to all data, thereby reducing computational overhead and storage issues. Alternatively, if samples are used, an exact match could then invoke a more intensive comparison with the same stored datasets, where again access can be denied when an exact or statistically sufficient match is found.

In the foregoing two assessments, an object has been to ferret out bots in an efficient and low overhead manner by exploiting intrinsic design limitations. However, it is possible that a bot designer could spoof these assessment means by, for example, running many bots in parallel wherein intrinsic delays in CPU processing and bandwidth would introduce inherent time delays associated with the very inputs being assessed. Therefore, more robust assessment means may be employed to ascertain the presence of a bot.

In robust embodiments of the invention, a third layer of testing may be employed that compares recorded pointer movements and key strokes to previously recorded activity for a given input page that was knowingly created by humans. Thus, as input data is collected for a given page, patterns will emerge that are unique to human activity. Subsequently recorded activity that is

inconsistent with these patterns would indicate the potential that the user is a bot. Access could then be denied, or further CAPTCHA tests presented. Alternatively, access could be granted since no lock is pick proof and an object of the invention embodiments is to minimize user exposure to CAPTCHA tests.

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SYSTEMS, METHODS AND APPARATUS FOR EVALUATING STATUS OF COMPUTING DEVICE USER

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or deny access and/or operation to the computing device. Because many of the invention embodiments provide a probability result as opposed to a binary result, the invention embodiments avoid the "there is only one right answer" phenomena inherent in prior art CAPTCHA tests. In other words, rather than placing the burden of proof on the user for functionality/access, which if the user is a human invokes the negative consequences of conventional CAPTCHA tests as previously described, the burden is shifted to the server side of the equation.

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computing environment, such as the Internet, that is generally recorded within the computing device and/or by other devices that have been affected by the computing device's operation — this is also a type of passive data; the term "acquired data", its equivalents and verb forms comprises data associated with a computing device's operation and its interaction with a computing environment, such as the Internet, that is generally not recorded within the computing device and/or by other devices that have been affected by the computing device's operation, but at least some data of which has/have been recorded and/or transmitted to a remote location, such as a server — this is a type of active data.

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device, and model data is performed to ascertain the likely status of the client computing device, i.e., human user or bot 130, 420. In both series of embodiments, acquired and/or available data may be used for comparison with suitable model data. The recited comparisons can take place locally on the computing device, remotely on the originating server, or on a server dedicated to performing such actions and for which subscriptions may be offered in conjunction with methods for providing services according to the methods, apparatus and systems embodiments described herein.

While available data represents data that is readily harvestable by query, for example, from the computing device or the computing environment in which the device operates, acquired data requires some form of information capture means. In the various embodiments described herein, the computing device is caused to monitor and retain certain data useful as acquired data for comparison purposes. Such monitoring and retaining means for acquiring data from the computing device comprises, without limitation, modification of (an) existing program(s) (e.g., such means are included in available browsers), a covert program (e.g., many malware applications log keystrokes and periodically pass them to remote servers for malicious purposes; similar technology can be used to exploit necessary aspects of the invention embodiments), or a servlet/Java applet. If user privacy is a concern, the monitoring and retaining means can remain dormant until activated by, for example, an enabled web site 110.

The monitoring and retaining means may also enable transmission of some or all retained data 410, in encrypted or unencrypted form, as may be desired for privacy and security purposes, and/or merely retain the data until requested from, for example, the server, at which time some or all data may be transmitted 120, 310. As described above with

reference to the comparison actions 130, 410, such receiving and/or polling actions can be carried out remotely on the originating server or on a server dedicated to performing such actions, if not performed locally on the computing device.

From the foregoing, it can be seen that implementation of the invention embodiments can be accomplished exclusively from the server side; it is not necessary to distribute or install in the conventional sense client side software. Existing available browsers and operating systems provide the means necessary to temporarily install logging code, if such is elected. Moreover, the methods, and associated systems and apparatus, described herein are highly transparent to the user, thereby achieving an objective of enhancing the user's experience of a web site employing bot assessment protocols.

DESCRIPTION OF AN INVENTION EMBODIMENT

A primary objective of bot creation is to autonomously access data and/or functionality of a target server as quickly as possible. By assessing user biometrics having a time domain, the time variable becomes a necessary component to accessing the data and/or functionality of the server. Because such assessment has heretofore been absent as a valid CAPTCHA marker of a human user, and more importantly because proper data input would necessarily slow the process, the likelihood of bot penetration has been significantly reduced.

An embodiment of the invention employs a first layer of testing that simply checks if there were valid mouse movements and/or key strokes inputted by the user of a computing device that is attempting to access a server resource "protected" from bots This basic "if-then" check is essentially without overhead since there are no computations being carried out.

Checking for the existence of the target activity therefore represents a first pass evaluation; if the bot is not programmed to include pseudo biometric data, further access is denied. In other words, if no activity is recorded there is a very high probability that the user is actually a bot.

A fundamental premise of robust biometrics is that a given dataset for each person is unique. Therefore, if the dataset is sufficiently robust, it is impossible to have duplicative input data unless the input data was derived from a machine. Exploiting this premise allows a second level knockout assessment to deny user access if the input data exactly (or statistically sufficiently) matches previously recorded data. Of course, the skilled practitioner employing this method can select (either explicitly or via programming) sample points of a dataset for comparison as opposed to all data, thereby reducing computational overhead and storage issues. Alternatively, if samples are used, an exact match could then invoke a more intensive comparison with the same stored datasets, where again access can be denied when an exact or statistically sufficient match is found.

In the foregoing two assessments, an object has been to ferret out bots in an efficient and low overhead manner by exploiting intrinsic design limitations. However, it is possible that a bot designer could spoof these assessment means by, for example, running many bots in parallel wherein intrinsic delays in CPU processing and bandwidth would introduce inherent time delays associated with the very inputs being assessed. Therefore, more robust assessment means may be employed to ascertain the presence of a bot.

In robust embodiments of the invention, a third layer of testing may be employed that compares recorded pointer movements and key strokes to previously recorded activity for a given input page that was knowingly created by humans. Thus, as input data is collected for a given page, patterns will emerge that are unique to human activity. Subsequently recorded activity that is

inconsistent with these patterns would indicate the potential that the user is a bot. Access could then be denied, or further CAPTCHA tests presented. Alternatively, access could be granted since no lock is pick proof and an object of the invention embodiments is to minimize user exposure to CAPTCHA tests.

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EFS ID:	46548301
Application Number:	17882082
International Application Number:	
Confirmation Number:	4844
Title of Invention:	Systems, Methods and Apparatus for Evaluating Status of Computing Device User
First Named Inventor/Applicant Name:	Timothy P. Heikell
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Filer:	Robert Clinton Peck/LeAnn Sassman
Filer Authorized By:	Robert Clinton Peck
Attorney Docket Number:	N106-0002USC4
Receipt Date:	02-SEP-2022
Filing Date:	05-AUG-2022
Time Stamp:	18:06:36
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	no

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Applicant Response to Pre-Exam Formalities Notice	2usc4resp.pdf	66839 52bbd094f803fce500f1bb456c743cfdf62e3580	no	2

Warnings:

Information:					
2	Specification	2usc4markedup.pdf	106748 9d81fc3223e034886592ce0aa28e22dabccd9511	no	10
Warnings:					
Information:					
3	Specification	2usc4clean.pdf	105660 d0f18edc01c86318ba267d9a86be7d478d222686	no	10
Warnings:					
Information:					
			Total Files Size (in bytes):	279247	

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Serial No. 17/882,082
Filing Date 8/5/2022
Confirmation No. 4844
First Named Inventor ..... Timothy P. Heikell
Assignee ..... Nobots LLC
Group Art Unit 2827
Examiner .....
Attorney's Docket No. N106-0002USC4
Title: Systems, Methods and Apparatus for Evaluating Status of Computing Device User

To: Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

From: Beatrice L. Koempel-Thomas (Tel. 509-944-4759; Fax 509-323-8979)
Lee & Hayes, P.C.
601 W. Riverside Avenue, Suite 1400
Spokane, WA 99201
Customer Number 29150

Please enter the accompanying Substitute Specification filed in response to the Notice to File Corrected Application Papers dated August 19, 2022, prior to examination of this application. No fees are believed to be due for this filing; however, Applicant hereby authorizes the Commissioner to charge any deficiency of fees and credit any overpayments to Deposit Account Number 12-0769.

SPECIFICATION AMENDMENTS

Applicant submits herewith marked and clean copies of a substitute specification containing amendments previously filed on August 5, 2022. The specification amendments contained in the substitute specification do not add any new matter.

Applicant respectfully requests consideration and allowance of the claims of the application.

Respectfully Submitted,

Lee & Hayes
Representatives for Applicant

Dated: September 2, 2022

By: /Bea Koempel-Thomas 58213/
Beatrice L. Koempel-Thomas
Lee & Hayes
Reg. No. 58213
509-944-4759

Doc Code: PA..
Document Description: Power of Attorney

PTO/AIA/82A (07-13)
Approved for use through 03/31/2021. OMB 0651-0035
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

TRANSMITTAL FOR POWER OF ATTORNEY TO ONE OR MORE REGISTERED PRACTITIONERS

NOTE: This form is to be submitted with the Power of Attorney by Applicant form (PTO/AIA/82B) to identify the application to which the Power of Attorney is directed, in accordance with 37 CFR 1.5, unless the application number and filing date are identified in the Power of Attorney by Applicant form. If neither form PTO/AIA/82A nor form PTO/AIA82B identifies the application to which the Power of Attorney is directed, the Power of Attorney will not be recognized in the application.

Application Number	17/882,082
Filing Date	8/5/2022
First Named Inventor	Timothy P. Heikell
Title	Systems, Methods and Apparatus for Evaluating Status of Computing Device User
Art Unit	2827
Examiner Name	
Attorney Docket Number	/ N106 - 0002USC4

SIGNATURE of Applicant or Patent Practitioner

Signature	/Bea Koempel-Thomas 58213/	Date (Optional)	
Name	Beatrice L. Koempel-Thomas	Registration Number	58213
Title (if Applicant is a juristic entity)			
Applicant Name (if Applicant is a juristic entity)			

NOTE: This form must be signed in accordance with 37 CFR 1.33. See 37 CFR 1.4(d) for signature requirements and certifications. If more than one applicant, use multiple forms.

☐ *Total of _____ forms are submitted.

This collection of information is required by 37 CFR 1.131, 1.32, and 1.33. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 3 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

Doc Code: PA..
Document Description: Power of Attorney

PTO/AIA/82B (07-13)
Approved for use through 03/31/2021. OMB 0651-0035
U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number

POWER OF ATTORNEY BY APPLICANT

I hereby revoke all previous powers of attorney given in the application identified in either the attached transmittal letter or the boxes below.

Application Number	Filing Date

(Note: The boxes above may be left blank if information is provided on form PTO/AIA/82A.)

☑ I hereby appoint the Patent Practitioner(s) associated with the following Customer Number as my/our attorney(s) or agent(s), and to transact all business in the United States Patent and Trademark Office connected therewith for the application referenced in the attached transmittal letter (form PTO/AIA/82A) or identified above:

29150

OR

☐ I hereby appoint Practitioner(s) named in the attached list (form PTO/AIA/82C) as my/our attorney(s) or agent(s), and to transact all business in the United States Patent and Trademark Office connected therewith for the patent application referenced in the attached transmittal letter (form PTO/AIA/82A) or identified above. (Note: Complete form PTO/AIA/82C.)

Please recognize or change the correspondence address for the application identified in the attached transmittal letter or the boxes above to:

☑ The address associated with the above-mentioned Customer Number

OR

☐ The address associated with Customer Number:

OR

☐	Firm or Individual Name				
Address					
City		State		Zip	
Country					
Telephone		Email			

I am the Applicant (if the Applicant is a juristic entity, list the Applicant name in the box):

Nobots LLC

☐ Inventor or Joint Inventor (title not required below)

☐ Legal Representative of a Deceased or Legally Incapacitated Inventor (title not required below)

☑ Assignee or Person to Whom the Inventor is Under an Obligation to Assign (provide signer's title if applicant is a juristic entity)

☐ Person Who Otherwise Shows Sufficient Proprietary Interest (e.g., a petition under 37 CFR 1.46(b)(2) was granted in the application or is concurrently being filed with this document) (provide signer's title if applicant is a juristic entity)

SIGNATURE of Applicant for Patent

The undersigned (whose title is supplied below) is authorized to act on behalf of the applicant (e.g., where the applicant is a juristic entity).

Signature	/T. Heikali/	Date (Optional)	
Name	Timothy P. Heikali		
Title	Registered Agent		

NOTE: Signature - This form must be signed by the applicant in accordance with 37 CFR 1.33. See 37 CFR 1.4 for signature requirements and certifications. If more than one applicant, use multiple forms.

☐ Total of forms are submitted.

This collection of information is required by 37 CFR 1.131, 1.32, and 1.33. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 3 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

Electronic Acknowledgement Receipt

EFS ID:	46548741
Application Number:	17882082
International Application Number:	
Confirmation Number:	4844
Title of Invention:	Systems, Methods and Apparatus for Evaluating Status of Computing Device User
First Named Inventor/Applicant Name:	Timothy P. Heikell
Customer Number:	29150
Filer:	Robert Clinton Peck/LeAnn Sassman
Filer Authorized By:	Robert Clinton Peck
Attorney Docket Number:	N106-0002USC4
Receipt Date:	02-SEP-2022
Filing Date:	05-AUG-2022
Time Stamp:	19:27:07
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	no

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Power of Attorney	2usc4poaB.pdf	227975 65478c6a045e06a8ccc816149a40a238459acd90	no	2

Warnings:

Information:	
Total Files Size (in bytes):	227975

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

New Applications Under 35 U.S.C. 111
If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.
National Stage of an International Application under 35 U.S.C. 371
If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.
New International Application Filed with the USPTO as a Receiving Office
If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
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Address: COMMISSIONER FOR PATENTS
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Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NUMBER	FILING or 371(c) DATE	GRP ART UNIT	FIL FEE REC'D	ATTY.DOCKET.NO	TOT CLAIMS	IND CLAIMS
17/882,082	08/05/2022	2827	1330	N106-0002USC4	30	3

CONFIRMATION NO. 4844

UPDATED FILING RECEIPT

29150
LEE & HAYES, P.C.
601 W. RIVERSIDE AVENUE
SUITE 1400
SPOKANE, WA 99201

OC000000136227007

Date Mailed: 09/09/2022

Receipt is acknowledged of this non-provisional utility patent application. The application will be taken up for examination in due course. Applicant will be notified as to the results of the examination. Any correspondence concerning the application must include the following identification information: the U.S. APPLICATION NUMBER, FILING DATE, NAME OF FIRST INVENTOR, and TITLE OF INVENTION. Fees transmitted by check or draft are subject to collection.

Please verify the accuracy of the data presented on this receipt. If an error is noted on this Filing Receipt, please submit a written request for a corrected Filing Receipt, including a properly marked-up ADS showing the changes with strike-through for deletions and underlining for additions. If you received a "Notice to File Missing Parts" or other Notice requiring a response for this application, please submit any request for correction to this Filing Receipt with your reply to the Notice. When the USPTO processes the reply to the Notice, the USPTO will generate another Filing Receipt incorporating the requested corrections provided that the request is grantable.

Inventor(s)

Timothy P. Heikell, Renton, WA;

Applicant(s)

Nobots LLC, Renton, WA;

Power of Attorney: The patent practitioners associated with Customer Number 29150

Domestic Priority data as claimed by applicant

This application is a CON of 16/578,823 09/23/2019
which is a DIV of 15/457,099 03/13/2017 PAT 10423885
which is a CON of 12/313,502 11/19/2008 PAT 9595008
which claims benefit of 61/003,743 11/19/2007

Foreign Applications for which priority is claimed (You may be eligible to benefit from the **Patent Prosecution Highway** program at the USPTO. Please see http://www.uspto.gov for more information.) - None.
Foreign application information must be provided in an Application Data Sheet in order to constitute a claim to foreign priority. See 37 CFR 1.55 and 1.76.

Permission to Access Application via Priority Document Exchange: Yes

Permission to Access Search Results: Yes

Applicant may provide or rescind an authorization for access using Form PTO/SB/39 or Form PTO/SB/69 as appropriate.

If Required, Foreign Filing License Granted: 08/17/2022

The country code and number of your priority application, to be used for filing abroad under the Paris Convention, is **US 17/882,082**

Projected Publication Date: 12/15/2022

Non-Publication Request: No

Early Publication Request: No
**** SMALL ENTITY ****
Title

Systems, Methods and Apparatus for Evaluating Status of Computing Device User

Preliminary Class

365

Statement under 37 CFR 1.55 or 1.78 for AIA (First Inventor to File) Transition Applications: No

PROTECTING YOUR INVENTION OUTSIDE THE UNITED STATES

Since the rights granted by a U.S. patent extend only throughout the territory of the United States and have no effect in a foreign country, an inventor who wishes patent protection in another country must apply for a patent in a specific country or in regional patent offices. Applicants may wish to consider the filing of an international application under the Patent Cooperation Treaty (PCT). An international (PCT) application generally has the same effect as a regular national patent application in each PCT-member country. The PCT process **simplifies** the filing of patent applications on the same invention in member countries, but **does not result** in a grant of "an international patent" and does not eliminate the need of applicants to file additional documents and fees in countries where patent protection is desired.

Almost every country has its own patent law, and a person desiring a patent in a particular country must make an application for patent in that country in accordance with its particular laws. Since the laws of many countries differ in various respects from the patent law of the United States, applicants are advised to seek guidance from specific foreign countries to ensure that patent rights are not lost prematurely.

Applicants also are advised that in the case of inventions made in the United States, the Director of the USPTO must issue a license before applicants can apply for a patent in a foreign country. The filing of a U.S. patent application serves as a request for a foreign filing license. The application's filing receipt contains further information and guidance as to the status of applicant's license for foreign filing.

Applicants may wish to consult the USPTO booklet, "General Information Concerning Patents" (specifically, the section entitled "Treaties and Foreign Patents") for more information on timeframes and deadlines for filing foreign patent applications. The guide is available either by contacting the USPTO Contact Center at 800-786-9199, or it can be viewed on the USPTO website at http://www.uspto.gov/web/offices/pac/doc/general/index.html.

For information on preventing theft of your intellectual property (patents, trademarks and copyrights), you may wish to consult the U.S. Government website, http://www.stopfakes.gov. Part of a Department of Commerce initiative, this website includes self-help "toolkits" giving innovators guidance on how to protect intellectual property in specific

countries such as China, Korea and Mexico. For questions regarding patent enforcement issues, applicants may call the U.S. Government hotline at 1-866-999-HALT (1-866-999-4258).

LICENSE FOR FOREIGN FILING UNDER

Title 35, United States Code, Section 184

Title 37, Code of Federal Regulations, 5.11 & 5.15

GRANTED

The applicant has been granted a license under 35 U.S.C. 184, if the phrase "IF REQUIRED, FOREIGN FILING LICENSE GRANTED" followed by a date appears on this form. Such licenses are issued in all applications where the conditions for issuance of a license have been met, regardless of whether or not a license may be required as set forth in 37 CFR 5.15. The scope and limitations of this license are set forth in 37 CFR 5.15(a) unless an earlier license has been issued under 37 CFR 5.15(b). The license is subject to revocation upon written notification. The date indicated is the effective date of the license, unless an earlier license of similar scope has been granted under 37 CFR 5.13 or 5.14.

This license is to be retained by the licensee and may be used at any time on or after the effective date thereof unless it is revoked. This license is automatically transferred to any related applications(s) filed under 37 CFR 1.53(d). This license is not retroactive.

The grant of a license does not in any way lessen the responsibility of a licensee for the security of the subject matter as imposed by any Government contract or the provisions of existing laws relating to espionage and the national security or the export of technical data. Licensees should apprise themselves of current regulations especially with respect to certain countries, of other agencies, particularly the Office of Defense Trade Controls, Department of State (with respect to Arms, Munitions and Implements of War (22 CFR 121-128)); the Bureau of Industry and Security, Department of Commerce (15 CFR parts 730-774); the Office of Foreign AssetsControl, Department of Treasury (31 CFR Parts 500+) and the Department of Energy.

NOT GRANTED

No license under 35 U.S.C. 184 has been granted at this time, if the phrase "IF REQUIRED, FOREIGN FILING LICENSE GRANTED" DOES NOT appear on this form. Applicant may still petition for a license under 37 CFR 5.12, if a license is desired before the expiration of 6 months from the filing date of the application. If 6 months has lapsed from the filing date of this application and the licensee has not received any indication of a secrecy order under 35 U.S.C. 181, the licensee may foreign file the application pursuant to 37 CFR 5.15(b).

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technology, manufacture products, deliver services, and grow your business, visit http://www.SelectUSA.gov or call +1-202-482-6800.

PATENT APPLICATION FEE DETERMINATION RECORD

Substitute for Form PTO-875

Application or Docket Number: 17/882,082

APPLICATION AS FILED - PART I

FOR	(Column 1) NUMBER FILED	(Column 2) NUMBER EXTRA	SMALL ENTITY RATE($)	SMALL ENTITY FEE($)	OR	OTHER THAN SMALL ENTITY RATE($)	OTHER THAN SMALL ENTITY FEE($)
BASIC FEE (37 CFR 1.16(a), (b), or (c))	N/A	N/A	N/A	80		N/A	
SEARCH FEE (37 CFR 1.16(k), (i), or (m))	N/A	N/A	N/A	350		N/A	
EXAMINATION FEE (37 CFR 1.16(o), (p), or (q))	N/A	N/A	N/A	400		N/A	
TOTAL CLAIMS (37 CFR 1.16(i))	30 minus 20 =	* 10	x 50 =	500	OR		
INDEPENDENT CLAIMS (37 CFR 1.16(h))	3 minus 3 =	*	x 240 =	0.00			
APPLICATION SIZE FEE (37 CFR 1.16(s))	If the specification and drawings exceed 100 sheets of paper, the application size fee due is $310 ($155 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).			0.00			
MULTIPLE DEPENDENT CLAIM PRESENT (37 CFR 1.16(j))				0.00			
* If the difference in column 1 is less than zero, enter "0" in column 2.			TOTAL	1330		TOTAL	

APPLICATION AS AMENDED - PART II

		(Column 1) CLAIMS REMAINING AFTER AMENDMENT		(Column 2) HIGHEST NUMBER PREVIOUSLY PAID FOR	(Column 3) PRESENT EXTRA	SMALL ENTITY RATE($)	SMALL ENTITY ADDITIONAL FEE($)	OR	OTHER THAN SMALL ENTITY RATE($)	OTHER THAN SMALL ENTITY ADDITIONAL FEE($)
AMENDMENT A	Total (37 CFR 1.16(i))	*	Minus	**	=	x =		OR	x =	
	Independent (37 CFR 1.16(h))	*	Minus	***	=	x =		OR	x =	
	Application Size Fee (37 CFR 1.16(s))									
	FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))							OR		
						TOTAL ADD'L FEE		OR	TOTAL ADD'L FEE	

		(Column 1) CLAIMS REMAINING AFTER AMENDMENT		(Column 2) HIGHEST NUMBER PREVIOUSLY PAID FOR	(Column 3) PRESENT EXTRA	RATE($)	ADDITIONAL FEE($)	OR	RATE($)	ADDITIONAL FEE($)
AMENDMENT B	Total (37 CFR 1.16(i))	*	Minus	**	=	x =		OR	x =	
	Independent (37 CFR 1.16(h))	*	Minus	***	=	x =		OR	x =	
	Application Size Fee (37 CFR 1.16(s))									
	FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))							OR		
						TOTAL ADD'L FEE		OR	TOTAL ADD'L FEE	

* If the entry in column 1 is less than the entry in column 2, write "0" in column 3.
** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20".
*** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, enter "3".
The "Highest Number Previously Paid For" (Total or Independent) is the highest found in the appropriate box in column 1.

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UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
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www.uspto.gov

APPLICATION NUMBER	FILING OR 371(C) DATE	FIRST NAMED APPLICANT	ATTY. DOCKET NO./TITLE
17/882,082	08/05/2022	Timothy P. Heikell	N106-0002USC4

CONFIRMATION NO. 4844

29150
LEE & HAYES, P.C.
601 W. RIVERSIDE AVENUE
SUITE 1400
SPOKANE, WA 99201

POA ACCEPTANCE LETTER

OC000000136226926

Date Mailed: 09/09/2022

NOTICE OF ACCEPTANCE OF POWER OF ATTORNEY

This is in response to the Power of Attorney filed 09/02/2022.

The Power of Attorney in this application is accepted. Correspondence in this application will be mailed to the above address as provided by 37 CFR 1.33.

Questions about the contents of this notice and the requirements it sets forth should be directed to the Office of Data Management, Application Assistance Unit, at **(571) 272-4000** or **(571) 272-4200** or **1-888-786-0101**.

/zretta/

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UNITED STATES DEPARTMENT OF COMMERCE
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Alexandria, Virginia 22313-1450
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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
17/882,082	08/05/2022	Timothy P. Heikell	N106-0002USC4	4844

29150 7590 10/05/2022

LEE & HAYES, P.C.
601 W. RIVERSIDE AVENUE
SUITE 1400
SPOKANE, WA 99201

EXAMINER
CENTRAL, DOCKET

ART UNIT	PAPER NUMBER
OPAP	

NOTIFICATION DATE	DELIVERY MODE
10/05/2022	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

lhpto@leehayes.com

PTOL-90A (Rev. 04/07)

Decision Granting Request for Prioritized Examination (Track I)	**Application No.** 17/882,082	**Applicant(s)** Heikell, Timothy P.	
	Examiner FIKIRTE A GEREMEW	**Art Unit** OMBL	**AIA (FITF) Status** No

1. THE REQUEST FILED 05 August 2022 IS **GRANTED** .

The above-identified application has met the requirements for prioritized examination

A. ☑ for an original nonprovisional application (Track I).
B. ☐ for an application undergoing continued examination (RCE).

2. **The above-identified application will undergo prioritized examination**. The application will be accorded special status throughout its entire course of prosecution until one of the following occurs:

A. filing a **petition for extension of time** to extend the time period for filing a reply;

B. filing an **amendment to amend the application to contain more than four independent claims, more than thirty total claims** , or a multiple dependent claim;

C. filing a **request for continued examination** ;

D. filing a notice of appeal;

E. filing a request for suspension of action;

F. mailing of a notice of allowance;

G. mailing of a final Office action;

H. completion of examination as defined in 37 CFR 41.102; or

I. abandonment of the application.

Telephone inquiries with regard to this decision should be directed to FIKIRTE GEREMEW at (703) 756-1930. In his/her absence, calls may be directed to Petition Help Desk at (571) 272-3282.

/FIKIRTE A GEREMEW/ PROGRAM SUPPORT ASSISTANT, OMBL	

UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
17/882,082	08/05/2022	Timothy P. Heikell	N106-0002USC4	4844

29150 7590 10/28/2022

LEE & HAYES, P.C.
601 W. RIVERSIDE AVENUE
SUITE 1400
SPOKANE, WA 99201

EXAMINER	
LIPMAN, JACOB	

ART UNIT	PAPER NUMBER
2434	

NOTIFICATION DATE	DELIVERY MODE
10/28/2022	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

lhpto@leehayes.com

Office Action Summary	Application No. 17/882,082	Applicant(s) Heikell, Timothy P.	
	Examiner JACOB LIPMAN	Art Unit 2434	AIA (FITF) Status No

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTHS FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☑ Responsive to communication(s) filed on 8/5/22.

☐ A declaration(s)/affidavit(s) under **37 CFR 1.130(b)** was/were filed on _____.

2a)☐ This action is **FINAL.** 2b) ☑ This action is non-final.

3)☐ An election was made by the applicant in response to a restriction requirement set forth during the interview on _____; the restriction requirement and election have been incorporated into this action.

4)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims*

5) ☑ Claim(s) 1-30 is/are pending in the application.

5a) Of the above claim(s) _____ is/are withdrawn from consideration.

6) ☐ Claim(s) _____ is/are allowed.

7) ☑ Claim(s) 1-30 is/are rejected.

8) ☐ Claim(s) _____ is/are objected to.

9) ☐ Claim(s) _____ are subject to restriction and/or election requirement

* If any claims have been determined allowable, you may be eligible to benefit from the **Patent Prosecution Highway** program at a participating intellectual property office for the corresponding application. For more information, please see http://www.uspto.gov/patents/init_events/pph/index.jsp or send an inquiry to **PPHfeedback@uspto.gov.**

Application Papers

10)☐ The specification is objected to by the Examiner.

11)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

Certified copies:

a)☐ All b)☐ Some** c)☐ None of the:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

** See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☑ Notice of References Cited (PTO-892)

2) ☑ Information Disclosure Statement(s) (PTO/SB/08a and/or PTO/SB/08b) Paper No(s)/Mail Date 8/5/22.

3) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date _____.

4) ☐ Other: _____.

DETAILED ACTION

Notice of Pre-AIA or AIA Status

1. The present application is being examined under the pre-AIA first to invent provisions.

Information Disclosure Statement

2. The information disclosure statement (IDS) submitted on 5 August 2022 has been considered by the examiner.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the first paragraph of 35 U.S.C. 112(a):

> (a) IN GENERAL.—The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same, and shall set forth the best mode contemplated by the inventor or joint inventor of carrying out the invention.

The following is a quotation of the first paragraph of pre-AIA 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same, and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claim 6 is rejected under 35 U.S.C. 112(a) or 35 U.S.C. 112 (pre-AIA), first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor or a joint inventor, or for applications subject to pre-AIA 35 U.S.C. 112, the inventor(s), at the time the application was filed, had possession of the claimed invention. The limitation of monitoring mouse movement over a CAPTCHA was not found in the specification.

Applicant is asked to please present support and explanation of this process in the specification, both for clarity, and for priority.

Claim Rejections - 35 USC § 103

5. In the event the determination of the status of the application as subject to AIA 35 U.S.C. 102 and 103 (or as subject to pre-AIA 35 U.S.C. 102 and 103) is incorrect, any correction of the statutory basis for the rejection will not be considered a new ground of rejection if the prior art relied upon, and the rationale supporting the rejection, would be the same under either status.

6. The following is a quotation of pre-AIA 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. Claims 1, 2, 9-14, 16-19, 21-25, 29, and 30, are rejected under pre-AIA 35 U.S.C. 103(a) as being unpatentable over Afergan et el., USPN 2008/0086524, in view of McNair, USPN 5,375,244 in further view of Farahat et al., USPN 2005/0144067.

With regard to claims 1, 9, 16-19, 22, and 30 Afergan discloses a non-transitory machine readable medium having stored thereon instructions (0011) for performing a method for generating a value indicative of a likelihood that a human or autonomic computer application (0040, 0155) is operating a client computer attempting access to a protected page of a website (0013), which when executed by at least one machine, causes the at least one machine to perform operations including, provide data collection data that causes the client computer to collect active data relating to interactions of the

client computer with a given page of the website (0041, 0042) receive at least some of the collected active data from the client computer (0042) and at least some passive data from the client computer (0050), perform a first analysis including analyzing at least some of the received active data (0042) and at least some of the received passive data (0050) in conjunction with model data based on human interactions from a prior session with the same website (0154), generate a first analysis value based on the first analysis, wherein the client computer is allowed to access the protected page without requiring an operator of the client computer to decipher a CAPTCHA test if the first analysis value meets a first analysis predetermined criteria (0128), Afergan discloses assessing the received interest data in conjunction with model data to determine if the actions match normal human behavior (0155) and that "normal" behavior can vary by site (0157), but does not specifically disclose a model based on prior sessions involving human interactions with the website. McNair discloses a method of protecting a resource against a likely fraud (abstract, column 1 lines 50-62) similar to that of Afergan, and further discloses comparing behavior to historical behavior when comparing behavior to "normal" behavior (column 11 lines 9-15). It would have been obvious for one of ordinary skill in the art, prior to the instant effective filing date, to use the historical data of McNair to determine the normal behavior of Afergan for the motivation of improved identification of unauthorized users, a stated motivation of both references (Afergan 0128, McNair column 1 lines 6-9). Afergan in view of McNair does not disclose using CAPTCHA if the user is likely not human. Farahat discloses a method of detecting automated agents (0053), similar to that of Afergan, and further discloses providing a Completely Automated Public Turing test to tell Computers and Humans Apart

(CAPTCHA) to the computing device attempting to access the server if a probability value (0057) does not indicate a greater likelihood that the operator of the computing device is a human (0058). It would have been obvious for one of ordinary skill in the art, prior to the instant effective filing date, to use the CAPTCHA of Farahat to test a possible bot of Afergan in view of McNair for the motivation of improved identification of automated users, a stated motivation of Afergan (0128) and Farahat (0050-0051).

With regard to claims 2, 14, and 23-25, Afergan in view of McNair in further view of Farahat discloses the medium of claim 1, as outlined above, but none of the references discloses presenting a second CAPTCHA if the first one does not result in a human determination. The examiner takes official notice that it is well known in the art to present multiple challenges to authenticate a user. It would have been obvious for one of ordinary skill in the art, prior to the instant effective filing date, to use a second CAPTCHA challenge in the medium of Afergan in view of McNair in further view of Farahat for the motivation of improved identification of unauthorized users, a stated motivation of all references (Afergan 0128, McNair column 1 lines 6-9, Farahat 0050-0051).

With regard to claims 10, 21, and 29, Afergan in view of McNair in further view of Farahat discloses the medium of claim 1, and Afergan further discloses decrypting the active and passive data (0042). The motivation to combine remains the same as outlined above.

With regard to claim 11, Afergan in view of McNair in further view of Farahat discloses the medium of claim 1, and McNair further discloses the model data is based

on human interaction from a prior session with the same given page (column 2 lines 8-10). The motivation to combine remains the same as outlined above.

With regard to claim 12, Afergan in view of McNair in further view of Farahat discloses the medium of claim 1, and Afergan further discloses the collected active data can be cookies (0042), which are collected when visiting a website. The motivation to combine remains the same as outlined above.

With regard to claim 13, Afergan in view of McNair in further view of Farahat discloses the medium of claim 1, and McNair further disclose receiving a threshold value (column 6 lines 29-31). The motivation to combine remains the same as outlined above.

8. Claims 3-8, 15, 20, and 26-28, as best understood, are rejected under pre-AIA 35 U.S.C. 103(a) as being unpatentable over Afergan in view of McNair in further view of Farahat, in further view of O'Connell et al., USPN 2007/0239604.

With regard to claim 3, Afergan in view of McNair in further view of Farahat discloses the medium of claim 1, as outlined above, and but does not disclose using JavaScript. O'Connell discloses a method of detecting automated agents (0020), similar to that of Afergan, and further discloses using CACPTCHA (0005) and JavaScript (0026). It would have been obvious for one of ordinary skill in the art, prior to the instant effective filing date, to use the JavaScript of O'Connell to perform the medium of Afergan in view of McNair in further view of Farahat for the motivation of providing extra functionality, a stated motivation of O'Connell (0026).

With regard to claims 4 and 26, Afergan in view of McNair in further view of Farahat in further view of O'Connell discloses the medium of claim 1, as outlined above,

and Afergan further discloses the passive data includes a cookie (0050, 0066) and that the active data analyzes the cookie and IP address (0065, 0066). The motivation to combine remains the same as outlined above.

With regard to claims 5, 20, and 27, Afergan in view of McNair in further view of Farahat in further view of O'Connell discloses the medium of claim 1, as outlined above, and Afergan further discloses analyzing manual device input (0028, 0111). The motivation to combine remains the same as outlined above.

With regard to claims 6 and 28, Afergan in view of McNair in further view of Farahat in further view of O'Connell discloses the medium of claim 1, as outlined above, and O'Connell further discloses analyzing manual device input such as mouse movement (0020). It would have been obvious for one of ordinary skill in the art, prior to the instant effective filing date, to use the mouse movement monitoring of O'Connell as part of the CAPTCHA of Farahat to perform the medium of Afergan in view of McNair in further view of Farahat in further view of O'Connell for the motivation of improved identification of unauthorized users, a stated motivation of all references (Afergan 0128, McNair column 1 lines 6-9, Farahat 0050-0051, O'Connell 0020).

With regard to claim 7, Afergan in view of McNair in further view of Farahat in further view of O'Connell discloses the medium of claim 1, as outlined above, and Afergan further discloses the prior session interaction includes other users (0154). The motivation to combine remains the same as outlined above.

With regard to claims 8 and 15, Afergan in view of McNair in further view of Farahat in further view of O'Connell discloses the medium of claim 1, as outlined above,

and O'Connell further discloses user interaction includes keyboard activity (0027) and mouse activity (0028). The motivation to combine remains the same as outlined above.

Double Patenting

9. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on nonstatutory double patenting provided the reference application or patent either is shown to be commonly owned with the examined application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement. See MPEP § 717.02 for applications subject to examination under the first inventor to file provisions of the AIA as explained in MPEP § 2159. See MPEP § 2146 *et seq.* for

applications not subject to examination under the first inventor to file provisions of the AIA. A terminal disclaimer must be signed in compliance with 37 CFR 1.321(b).

The USPTO Internet website contains terminal disclaimer forms which may be used. Please visit www.uspto.gov/patent/patents-forms. The filing date of the application in which the form is filed determines what form (e.g., PTO/SB/25, PTO/SB/26, PTO/AIA/25, or PTO/AIA/26) should be used. A web-based eTerminal Disclaimer may be filled out completely online using web-screens. An eTerminal Disclaimer that meets all requirements is auto-processed and approved immediately upon submission. For more information about eTerminal Disclaimers, refer to www.uspto.gov/patents/process/file/efs/guidance/eTD-info-I.jsp.

10. Claims 1-30 are provisionally rejected on the ground of nonstatutory double patenting as being unpatentable over claims 1, 2, 4-8, and 29-48 of copending Application No. 16/578,823 (reference application). Although the claims at issue are not identical, they are not patentably distinct from each other because adding a second CAPTCHA and other differences added to the instant claims are seen as obvious, as outlined above.

11. Claims 1-30 are provisionally rejected on the ground of nonstatutory double patenting as being unpatentable over claims 1-30 of copending Application No. 17/874,137 (reference application). Although the claims at issue are not identical, they are not patentably distinct from each other because there is no seen limitation that distinguishes the inventions. The copending claimed invention seems to be a method of performing the instructions stored on the non-transitory machine readable medium of the instant claimed invention.

This is a provisional nonstatutory double patenting rejection because the patentably indistinct claims have not in fact been patented.

References Cited

12. Kaminsky et al., USPN 2015/0112892, discloses a method of determining the likelihood of an access request coming from a bot (0005), using active and passive methods (0014), but is not seen as prior art.

Conclusion

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to JACOB LIPMAN whose telephone number is (571)272-3837. The examiner can normally be reached 5:30AM-6:00PM.

Examiner interviews are available via telephone, in-person, and video conferencing using a USPTO supplied web-based collaboration tool. To schedule an interview, applicant is encouraged to use the USPTO Automated Interview Request (AIR) at http://www.uspto.gov/interviewpractice.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kambiz Zand can be reached on 571-272-3811. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of published or unpublished applications may be obtained from Patent Center. Unpublished application information in Patent Center is available to registered users. To file and manage patent submissions in Patent Center, visit: https://patentcenter.uspto.gov. Visit https://www.uspto.gov/patents/apply/patent-center for more information about Patent Center and https://www.uspto.gov/patents/docx for information about filing in DOCX format. For

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Representative, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/JACOB LIPMAN/
Primary Examiner, Art Unit 2434

Notice of References Cited	Application/Control No. 17/882,082	Applicant(s)/Patent Under Reexamination Heikell, Timothy P.	
	Examiner JACOB LIPMAN	Art Unit 2434	Page 1 of 1

U.S. PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	CPC Classification	US Classification
*	A	US-20080086524-A1	04-2008	Afergan; Michael M.	H04L67/02	709/202
*	B	US-5375244-A	12-1994	McNair; Bruce E.	G06F21/32	710/200
*	C	US-20050144067-A1	06-2005	Farahat, Ayman O.	G06Q30/0269	705/14.66
*	D	US-20070239604-A1	10-2007	O'Connell; Brian M.	G06F21/55	705/50
*	E	US-20150112892-A1	04-2015	KAMINSKY; Daniel	G06F21/31	706/11
	F					
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FOREIGN PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Country	Name	CPC Classification
	N					
	O					
	P					
	Q					
	R					
	S					
	T					

NON-PATENT DOCUMENTS

*		Include as applicable: Author, Title Date, Publisher, Edition or Volume, Pertinent Pages)
	U	
	V	
	W	
	X	

*A copy of this reference is not being furnished with this Office action. (See MPEP § 707.05(a).)
Dates in MM-YYYY format are publication dates. Classifications may be US or foreign.

Search Notes	Application/Control No.	Applicant(s)/Patent Under Reexamination
	17/882,082	Heikell, Timothy P.
	Examiner	Art Unit
	JACOB LIPMAN	2434

CPC - Searched*		
Symbol	Date	Examiner
G06N7/005 or G06F21/316 or G06F21/50 or G06F2221/2133	10/24/2022	jl

CPC Combination Sets - Searched*		
Symbol	Date	Examiner

US Classification - Searched*			
Class	Subclass	Date	Examiner
706	52	10/24/2022	jl

* See search history printout included with this form or the SEARCH NOTES box below to determine the scope of the search.

Search Notes		
Search Notes	Date	Examiner
PE2E search	10/24/2022	jl
Inventor search	10/24/2022	jl
NPL (IP.com, google) search using the concept of comparing behavior to predicted human behavior to access resource	10/24/2022	jl

Interference Search			
US Class/CPC Symbol	US Subclass/CPC Group	Date	Examiner

/JACOB LIPMAN/ Primary Examiner, Art Unit 2434	

Index of Claims	Application/Control No.	Applicant(s)/Patent Under Reexamination
	17/882,082	Heikell, Timothy P.
	Examiner	**Art Unit**
	JACOB LIPMAN	2434

✓	Rejected	-	Cancelled	N	Non-Elected	A	Appeal
=	Allowed	÷	Restricted	I	Interference	O	Objected

CLAIMS

☐ Claims renumbered in the same order as presented by applicant ☐ CPA ☐ T.D. ☐ R.1.47

CLAIM		DATE								
Final	Original	10/24/2022								
	1	✓								
	2	✓								
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	4	✓								
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comparing behavior to predicted human behavior to access resource

ALL

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A deep learning approach for human behavior prediction ... - NCBI

Sep 13, 2018 · In this paper, we study the research problem, human behavior prediction with explanations, for healthcare intervention systems in health ...

www.pnas.org › doi › pnas.1719452115

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Sep 10, 2018 · This framework successfully predicted behavior toward members of a diverse set of social groups across samples and successfully generalized ...

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[PDF] A Comparative Analysis of Human Behavior ... - Semantic Scholar

Jan 18, 2022 · In this paper, we propose the use of embeddings to represent the user actions, and study and compare several behavior prediction approaches.

www.datasociety.net › pubs › PredictingHumanBehaviorPrimer

[PDF] Predicting Human Behavior - Data & Society

Mar 17, 2014 · Predicting human behavior can be both hugely beneficial and deeply problematic depending on the context. What kinds of predictive privacy ...

www.linkedin.com › pulse › predicting-human-behavior-big-data-russ-pen...

Predicting Human Behavior with Big Data - LinkedIn

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[PDF] Human Behavior in Domestic Environments: Prediction ... - ucf stars

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learning to explain human behavior in dynamic tasks. Index Terms—dynamic tasks, best performer, worst performer, model comparison, model generalization,.

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(PDF) Simulating Human Behavior for Understanding and Managing ...

Jul 5, 2022 · Behavioral determinants and processes as identified in social-scientific theory may be formalized in simulated agents to obtain a better ...

link.springer.com › article

Cognition and behavior in context: a framework and theories to ...

Jul 3, 2021 · 2011; Victor 2015; Beckage et al. 2018; Schill et al. 2019). Human behavior is a key source of uncertainty in natural resource use (e.g. in ...

Related searches

- Predicting behavior psychology examples
- Prediction of behavior examples
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BIB DATA SHEET

CONFIRMATION NO. 4844

SERIAL NUMBER	FILING or 371(c) DATE RULE	CLASS	GROUP ART UNIT	ATTORNEY DOCKET NO.
17/882,082	08/05/2022	706	2434	N106-0002USC4

APPLICANTS
Nobots LLC, Renton, WA;

INVENTORS
Timothy P. Heikell, Renton, WA;

**** CONTINUING DATA ***************************
This application is a CON of 16/578,823 09/23/2019
which is a DIV of 15/457,099 03/13/2017 PAT 10423885
which is a CON of 12/313,502 11/19/2008 PAT 9595008
which claims benefit of 61/003,743 11/19/2007

**** FOREIGN APPLICATIONS ***************************

**** IF REQUIRED, FOREIGN FILING LICENSE GRANTED **** ** SMALL ENTITY **
08/17/2022

Foreign Priority claimed ❑ Yes ☑ No 35 USC 119(a-d) conditions met ❑ Yes ☑ No Verified and Acknowledged /JACOB LIPMAN/ Examiner's Signature	❑ Met after Allowance Initials	STATE OR COUNTRY	SHEETS DRAWINGS	TOTAL CLAIMS	INDEPENDENT CLAIMS
		WA	4	30	3

ADDRESS

LEE & HAYES, P.C.
601 W. RIVERSIDE AVENUE
SUITE 1400
SPOKANE, WA 99201
UNITED STATES

TITLE

Systems, Methods and Apparatus for Evaluating Status of Computing Device User

FILING FEE RECEIVED		
1330	FEES: Authority has been given in Paper No._____ to charge/credit DEPOSIT ACCOUNT No._____ for following:	❑ All Fees ❑ 1.16 Fees (Filing) ❑ 1.17 Fees (Processing Ext. of time) ❑ 1.18 Fees (Issue) ❑ Other _____ ❑ Credit

Doc code: IDS
Doc description: Information Disclosure Statement (IDS) Filed

PTO/SB/08a (02-18)
Approved for use through 11/30/2020. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (**Not for submission under 37 CFR 1.99)**		
	Application Number	
	Filing Date	
	First Named Inventor	Timothy P. Heikell
	Art Unit	
	Examiner Name	
	Attorney Docket Number	N106-0002USC4

U.S.PATENTS						
Examiner Initial*	Cite No	Patent Number	Kind Code[1]	Issue Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear
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	2	6405922		2002-06-18	Kroll	
	3	6460141		2002-10-01	Olden	
	4	7089241		2006-08-08	Alspector, et al.	
	5	7506170		2009-03-17	Finnegan	
	6	7895653		2011-02-22	Calo, et al.	
	7	8280993		2012-10-02	Awadallah, et al.	
	8	8694244		2014-04-08	Schalk	

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /J.L/

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)		
	Application Number	
	Filing Date	
	First Named Inventor	Timothy P. Heikell
	Art Unit	
	Examiner Name	
	Attorney Docket Number	N106-0002USC4

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	10	8706405		2014-04-22	Schalk	
	11	8713657		2014-04-29	Lee	
	12	8738287		2014-05-27	Schalk	
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	14	8775236		2014-07-08	Hedley, et al.	
	15	8824659		2014-09-02	Bushey, et al.	
	16	8825379		2014-09-02	Schalk	
	17	8838570		2014-09-16	English	
	18	8903052		2014-12-02	Moore, et al.	
	19	9047458		2015-06-02	Etchegoyen	

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)		
	Application Number	
	Filing Date	
	First Named Inventor	Timothy P. Heikell
	Art Unit	
	Examiner Name	
	Attorney Docket Number	N106-0002USC4

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	21	9152381		2015-10-06	Valentino, et al.	
	22	9208461		2015-12-08	Busa	
	23	9240078		2016-01-19	Hedley, et al.	

If you wish to add additional U.S. Patent citation information please click the Add button.

U.S.PATENT APPLICATION PUBLICATIONS

Examiner Initial*	Cite No	Publication Number	Kind Code[1]	Publication Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear
	1	20050114705	A1	2005-05-26	Reshef, Eran; et al.	
	2	20050144067	A1	2005-06-30	Farahat, Ayman O.; et al.	
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ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /J.L/

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)		
	Application Number	
	Filing Date	
	First Named Inventor	Timothy P. Heikell
	Art Unit	
	Examiner Name	
	Attorney Docket Number	N106-0002USC4

	6	20070165911	A1	2007-07-19	Baentsch; Michael; et al.	
	7	20070192419	A1	2007-08-16	Vuong; John; et al.	
	8	20070239604	A1	2007-10-11	O'Connell; Brian M.; et al.	
	9	20070255818	A1	2007-11-01	Tanzer; Terry Owen; et al.	
	10	20070255821	A1	2007-11-01	Ge; Li; et al.	
	11	20080086524	A1	2008-04-10	Afergan; Michael M.; et al.	
	12	20080114624	A1	2008-05-15	Kitts; Brendan James	
	13	20080147456	A1	2008-06-19	Broder; Andrei Zary; et al.	
	14	20080225870	A1	2008-09-18	Sundstrom; Robert J.	
	15	20080263636	A1	2008-10-23	Gusler; Carl P.; et al.	
	16	20080319774	A1	2008-12-25	O'Sullivan; Patrick; et al.	

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	Application Number	
	Filing Date	
	First Named Inventor	Timothy P. Heikell
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	Examiner Name	
	Attorney Docket Number	N106-0002USC4

	17	20090024971	A1	2009-01-22	Willner; Barry E.; et al.	
	18	20090197815	A1	2009-08-06	Vincenzi; Beatrice; et al.	
	19	20130019290	A1	2013-01-17	Lee; Mark C.	

If you wish to add additional U.S. Published Application citation information please click the Add button.

FOREIGN PATENT DOCUMENTS

Examiner Initial*	Cite No	Foreign Document Number[3]	Country Code[2]	Kind Code[4]	Publication Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear	T[5]
	1							☐

If you wish to add additional Foreign Patent Document citation information please click the Add button

NON-PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc), date, pages(s), volume-issue number(s), publisher, city and/or country where published.	T[5]
	1	Al-Qayedi, et. al., "Combined Web/Mobile Authentication for Secure Web Access Control", WCNC 2004, IEEE Communications Society, 2004, 5 pages.	☐
	2	Copy of Daniel Lopresti CV, dated April 2022, 56 pages.	☐
	3	Copy of File History for U.S. Patent No. 10/423,885 filed March 13, 2017, 226 pages.	☐

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	Application Number	
	Filing Date	
	First Named Inventor	Timothy P. Heikell
	Art Unit	
	Examiner Name	
	Attorney Docket Number	N106-0002USC4

	4	Copy of File History for U.S. Patent No. 9,595,008 filed November 19, 2008, 137 pages.	☐
	5	"Fingerprint Reader: Replace Passwords with Your Fingerprint" retrieved on the internet on August 16, 2018 at <<https://web.archive.org/web/20061230123302/http://www.microsoft.com/hardware/houseandkeyboard/productdetails.aspxZpid=036>> 1 page.	☐
	6	Copy of Good Prior Art Stipulation dated April 29, 2022, 2 pages.	☐
	7	Copy of Initial Related Complaint from United States District Court, Western District of Texas, Waco Division, Case No. 6:21-cn1290, dated December 20, 2021, 39 pages.	☐
	8	Copy of Declaration of Daniel P. Lopresti, Ph.D. for U.S. Patent No. 9,595,008, dated 4/29/2022, 120 pages.	☐
	9	Copy of Declaration of Daniel P. Lopresti, Ph.D. for U.S. Patent No. 10,423,885, dated 4/29/2022, 119 pages.	☐
	10	McCausland et al.," A Proactice Risk-Awar Robitic Sensor Network for Critical Infrastructure Protection", IEEE International Conference on Computational Intelligence and Virtual Environments for Measurement Systems and Applications (CIVEMSA), April 2013, pp. 132-137	☐
	11	"Microsoft Fingerprint Reader" retrieved from the internet on August 16, 2018 at << https//en.wikipedia.org/wikiMicrosoft_Fingerprint_Reader>>, 2 pages.	☐
	12	"Most people have at least 15 username and password combinations to remember" retrieved from the internet on August 16, 2018 at <<https://web.archive.org/web/20050111041404/http://www.microsoft.com:80/hardware/mouseandkeyboard/features/docs/fingerprint.html >> 12 pages.	☐
	13	Office Action for US Patent Application 16/578,823, mailed on 04/05/2022, Heikell, "Systems, Methods and Apparatus for Evaluating Status of Computing Device User", 10 pages	☐
	14	Office action for US Patent Application 12/313,502, mailed on 9/16/2011, Heikell, "Systems, Methods and Apparatus for Evaluating Status of Computing Device User", 9 pages.	☐

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	Filing Date	
	First Named Inventor	Timothy P. Heikell
	Art Unit	
	Examiner Name	
	Attorney Docket Number	N106-0002USC4

	15	Office Action for US Patent Application 15/457,099, mailed on 09/25/2018, Heikell, "Systems, Methods and Apparatus for Evaluating Status of Computing Device User", 16 pages.	☐
	16	Pal et al., "Trust Assessment from Observed Behavior: Toward and Essential Service for Trusted Network Computing", Fifth IEEE International Symposium on Network Computing and Applications (NCA'06), July 2006, pp. 285-292	☐
	17	Copy of Petition for Inter Partes Review for U.S. Patent No. 10,423,885 dated April 29, 2022, 94 pages.	☐
	18	Copy of Petition for Inter Partes Review for U.S. Patent No. 9,595,008 dated April 29, 2022, 86 pages.	☐
	19	"Researcher Hacks Microsoft Fingerprint Reader" retrieved from the internet on August 16, 2018 at <<https://www.pcworld.com/article/124978/article.html>> 3 pages.	☐
	20	Temple et al., "Testability Modeling and Analysis of a Rocket Engine Test Stand", IEEE Aerospace Conference, January 2005, pp. 3874-3895	☐
	21	"Tired of passwords? Replace them with your fingerprint" retrieved from the internet on August 16, 2018 at <<https://web.archive.org/web/20040926002804/http://www.microsoft.com:80hardware;mouseandkeyboard/features/fingerprint.mspx>>, 1 page.	☐

If you wish to add additional non-patent literature document citation information please click the Add button

EXAMINER SIGNATURE

Examiner Signature	/JACOB LIPMAN/	Date Considered	10/24/2022

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through a citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

[1] See Kind Codes of USPTO Patent Documents at www.USPTO.GOV or MPEP 901.04. [2] Enter office that issued the document, by the two-letter code (WIPO Standard ST.3). [3] For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. [4] Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. [5] Applicant is to place a check mark here if English language translation is attached.

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	First Named Inventor	Timothy P. Heikell
	Art Unit	
	Examiner Name	
	Attorney Docket Number	N106-0002USC4

CERTIFICATION STATEMENT

Please see 37 CFR 1.97 and 1.98 to make the appropriate selection(s):

☐ That each item of information contained in the information disclosure statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of the information disclosure statement. See 37 CFR 1.97(e)(1).

OR

☐ That no item of information contained in the information disclosure statement was cited in a communication from a foreign patent office in a counterpart foreign application, and, to the knowledge of the person signing the certification after making reasonable inquiry, no item of information contained in the information disclosure statement was known to any individual designated in 37 CFR 1.56(c) more than three months prior to the filing of the information disclosure statement. See 37 CFR 1.97(e)(2).

☐ See attached certification statement.

☐ The fee set forth in 37 CFR 1.17 (p) has been submitted herewith.

☒ A certification statement is not submitted herewith.

SIGNATURE

A signature of the applicant or representative is required in accordance with CFR 1.33, 10.18. Please see CFR 1.4(d) for the form of the signature.

Signature	/Bea Koempel-Thomas 58213/	Date (YYYY-MM-DD)	2022-08-05
Name/Print	Beatrice L. Koempel-Thomas	Registration Number	58213

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 1 hour to complete, including gathering, preparing and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

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The Privacy Act of 1974 (P.L. 93-579) requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b)(2); (2) furnishing of the information solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent application or patent. If you do not furnish the requested information, the U.S. Patent and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abandonment of the application or expiration of the patent.

The information provided by you in this form will be subject to the following routine uses:

1. The information on this form will be treated confidentially to the extent allowed under the Freedom of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C. 552a). Records from this system of records may be disclosed to the Department of Justice to determine whether the Freedom of Information Act requires disclosure of these record s.

2. A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.

3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.

4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).

5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.

6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).

7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (i.e., GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.

8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspections or an issued patent.

9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

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PE2E SEARCH - Search History (Prior Art)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	British Equivalents	Time Stamp
L1	363	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood	(US-PGPUB; USPAT)	OR	ON	ON	2022/03/31 11:16 AM
L2	153	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood AND human WITH model	(US-PGPUB; USPAT)	OR	ON	ON	2022/03/31 11:17 AM
L3	60	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood SAME human WITH model	(US-PGPUB; USPAT)	OR	ON	ON	2022/03/31 11:17 AM
L4	14	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood SAME human near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2022/03/31 11:17 AM
L5	95	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood AND human near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2022/03/31 11:19 AM
L6	92	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND captcha AND human near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2022/03/31 11:19 AM
L7	207	captcha AND human near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2022/03/31 11:20 AM
L8	1	"20060280339".pn.	(US-PGPUB; USPAT)	OR	ON	ON	2022/03/31 11:32 AM
L9	22	("5933498" "6460141" "7506170" "8694244" "8700259" "8706405" "8713657" "8738287" "8775235" "8775236" "8824659" "8825379"	(US-PGPUB; USPAT)	OR	ON	ON	2022/03/31 12:32 PM

		"8903052" "9047458" "9088652" "9152381" "9208461" "9240078" "9595008" "20080225870" "20090197815" "20130019290").pn.					
L10	0	human ADJ proof near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2022/03/31 12:34 PM
L11	4	human ADJ proof WITH model	(US-PGPUB; USPAT)	OR	ON	ON	2022/03/31 12:34 PM
L12	29	human ADJ proof SAME model	(US-PGPUB; USPAT)	OR	ON	ON	2022/03/31 12:34 PM
L13	36	human ADJ proof AND human near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2022/03/31 12:35 PM
L14	53	human ADJ proof AND human WITH model	(US-PGPUB; USPAT)	OR	ON	ON	2022/03/31 12:35 PM
L15	492	human ADJ proof AND human WITH model	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2022/03/31 12:35 PM
L16	492	human ADJ proof AND human WITH model	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2022/03/31 12:35 PM
L17	300	human ADJ proof SAME model	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB,	OR	ON	ON	2022/03/31 12:35 PM

			HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)				
L18	614	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2022/03/31 12:35 PM
L19	89	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood WITH model	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2022/03/31 12:36 PM
L20	213	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human near3 likelihood	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT;	OR	ON	ON	2022/03/31 12:37 PM

			IBM_TDB)				
L21	76104	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. grant$4 near2 access WITH human	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2022/03/31 02:20 PM
L22	181	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND grant$4 near2 access WITH human	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2022/03/31 02:20 PM
L23	153	(G06F2221/2133).cpc. AND grant$4 near2 access WITH human	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2022/03/31 02:20 PM
L24	185	(G06F2221/2133).cpc. AND allow$4 near2 access WITH human	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV,	OR	ON	ON	2022/03/31 02:20 PM

			MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)				
L25	394	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood	(US-PGPUB; USPAT)	OR	ON	ON	2022/10/23 11:41 AM
L26	177	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood AND human WITH model	(US-PGPUB; USPAT)	OR	ON	ON	2022/10/23 11:41 AM
L27	70	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood SAME human WITH model	(US-PGPUB; USPAT)	OR	ON	ON	2022/10/23 11:41 AM
L28	14	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood SAME human near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2022/10/23 11:41 AM
L29	108	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood AND human near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2022/10/23 11:41 AM
L30	100	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND captcha AND human near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2022/10/23 11:41 AM
L31	221	captcha AND human near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2022/10/23 11:41 AM
L32	1	"20060280339".pn.	(US-PGPUB; USPAT)	OR	ON	ON	2022/10/23 11:41 AM
L33	22	("5933498" "6460141" "7506170" "8694244" "8700259" "8706405"	(US-PGPUB; USPAT)	OR	ON	ON	2022/10/23 11:41 AM

		"8713657" "8738287" "8775235" "8775236" "8824659" "8825379" "8903052" "9047458" "9088652" "9152381" "9208461" "9240078" "9595008" "20080225870" "20090197815" "20130019290").pn.					
L34	0	human ADJ proof near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2022/10/23 11:41 AM
L35	4	human ADJ proof WITH model	(US-PGPUB; USPAT)	OR	ON	ON	2022/10/23 11:41 AM
L36	33	human ADJ proof SAME model	(US-PGPUB; USPAT)	OR	ON	ON	2022/10/23 11:41 AM
L37	38	human ADJ proof AND human near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2022/10/23 11:41 AM
L38	56	human ADJ proof AND human WITH model	(US-PGPUB; USPAT)	OR	ON	ON	2022/10/23 11:41 AM
L39	657	human ADJ proof AND human WITH model	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2022/10/23 11:41 AM
L40	657	human ADJ proof AND human WITH model	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2022/10/23 11:41 AM
L41	409	human ADJ proof SAME model	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY,	OR	ON	ON	2022/10/23 11:41 AM

			CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)				
L42	674	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2022/10/23 11:41 AM
L43	101	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood WITH model	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2022/10/23 11:41 AM
L44	232	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human near3 likelihood	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH,	OR	ON	ON	2022/10/23 11:41 AM

			TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)				
L45	88054	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. grant$4 near2 access WITH human	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2022/10/23 11:41 AM
L46	194	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND grant$4 near2 access WITH human	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2022/10/23 11:41 AM
L47	158	(G06F2221/2133).cpc. AND grant$4 near2 access WITH human	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2022/10/23 11:41 AM
L48	195	(G06F2221/2133).cpc. AND allow$4 near2 access WITH human	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA,	OR	ON	ON	2022/10/23 11:41 AM

			EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)				
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L50	1	"8713657".pn.	(US-PGPUB; USPAT)	OR	ON	ON	2022/10/23 11:59 AM
L51	1	"20130019290".pn.	(US-PGPUB; USPAT)	OR	ON	ON	2022/10/23 12:11 PM
L52	18	("6405922" "7089241" "7895653" "8280993" "8838570" "20050198158" "20050278253" "20070106737" "20070165911" "20070192419" "20070239604" "20070255818" "20070255821" "20080086524" "20080114624" "20080147456" "20080319774" "20090024971").pn.	(US-PGPUB; USPAT)	OR	ON	ON	2022/10/23 12:15 PM
L53	13	("6405922" "7089241" "7895653" "8280993" "8838570" "20050198158" "20050278253" "20070106737" "20070165911" "20070192419" "20070239604" "20070255818" "20070255821" "20080086524" "20080114624" "20080147456" "20080319774" "20090024971").pn. AND (likel$7 probab$7)	(US-PGPUB; USPAT)	OR	ON	ON	2022/10/23 12:16 PM
L54	8	("6405922" "7089241" "7895653" "8280993" "8838570" "20050198158" "20050278253" "20070106737"	(US-PGPUB; USPAT)	OR	ON	ON	2022/10/23 12:16 PM

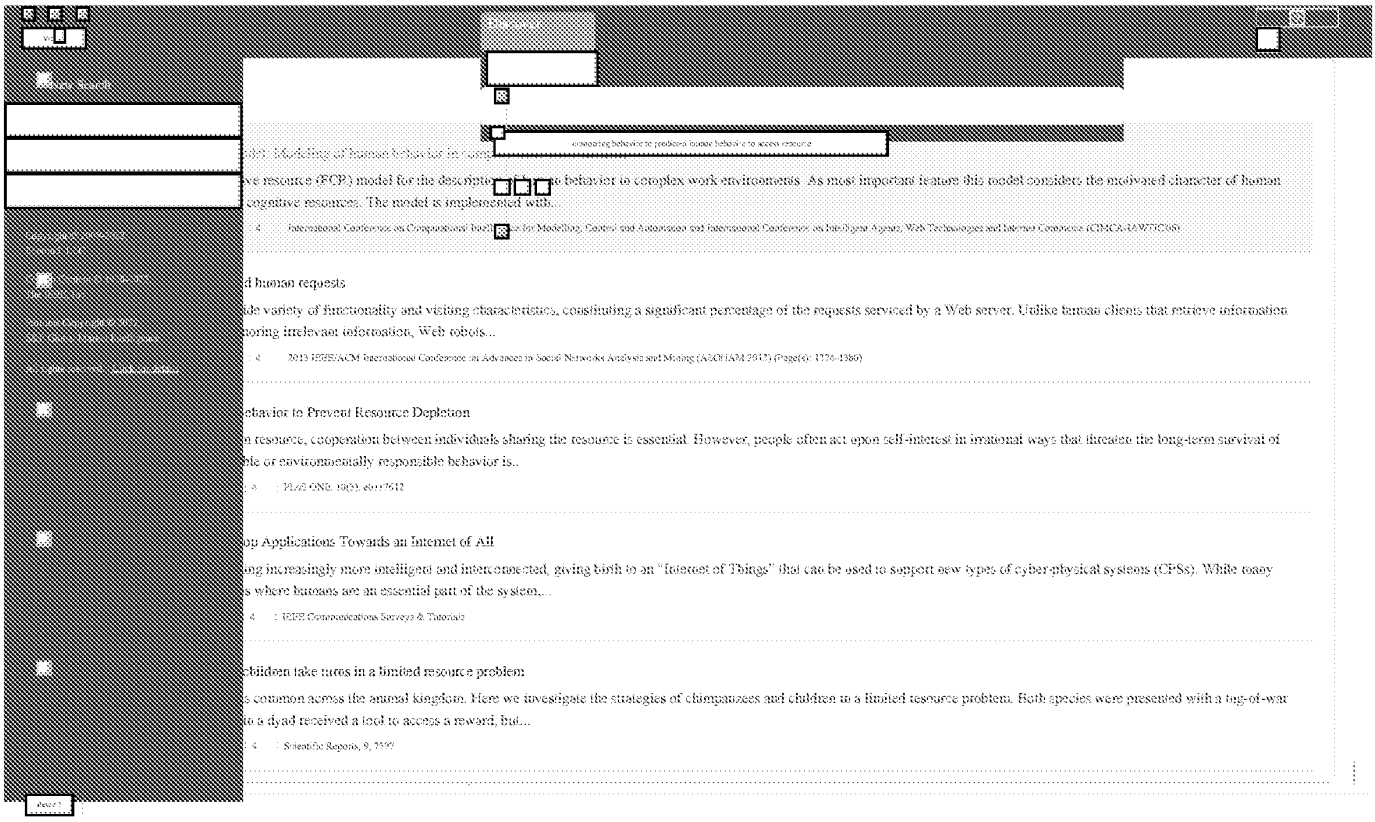
		"20070165911" "20070192419" "20070239604" "20070255818" "20070255821" "20080086524" "20080114624" "20080147456" "20080319774" "20090024971").pn. AND (likel$7 probab$7) WITH (human person automat$7)					
L55	19896	activ$4 WITH passiv$4 AND (likel$7 probab$7) WITH (human person automat$7)	(US-PGPUB; USPAT)	OR	ON	ON	2022/10/23 12:26 PM
L56	446	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND activ$4 WITH passiv$4 AND (likel$7 probab$7) WITH (human person automat$7 bot)	(US-PGPUB; USPAT)	OR	ON	ON	2022/10/23 12:27 PM
L57	20	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND activ$4 WITH passiv$4 AND (likel$7 probab$7) WITH (human person automat$7 bot) AND captcha	(US-PGPUB; USPAT)	OR	ON	ON	2022/10/23 12:27 PM
L58	16	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND activ$4 WITH passiv$4 AND (likel$7 probab$7) WITH (human person automat$7 bot) WITH compar$4 WITH (prior previous$4 histor$7)	(US-PGPUB; USPAT)	OR	ON	ON	2022/10/23 04:36 PM
L59	46	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND (likel$7 probab$7) WITH (human person automat$7 bot) WITH compar$4 WITH (prior previous$4 histor$7)	(US-PGPUB; USPAT)	OR	ON	ON	2022/10/23 04:38 PM

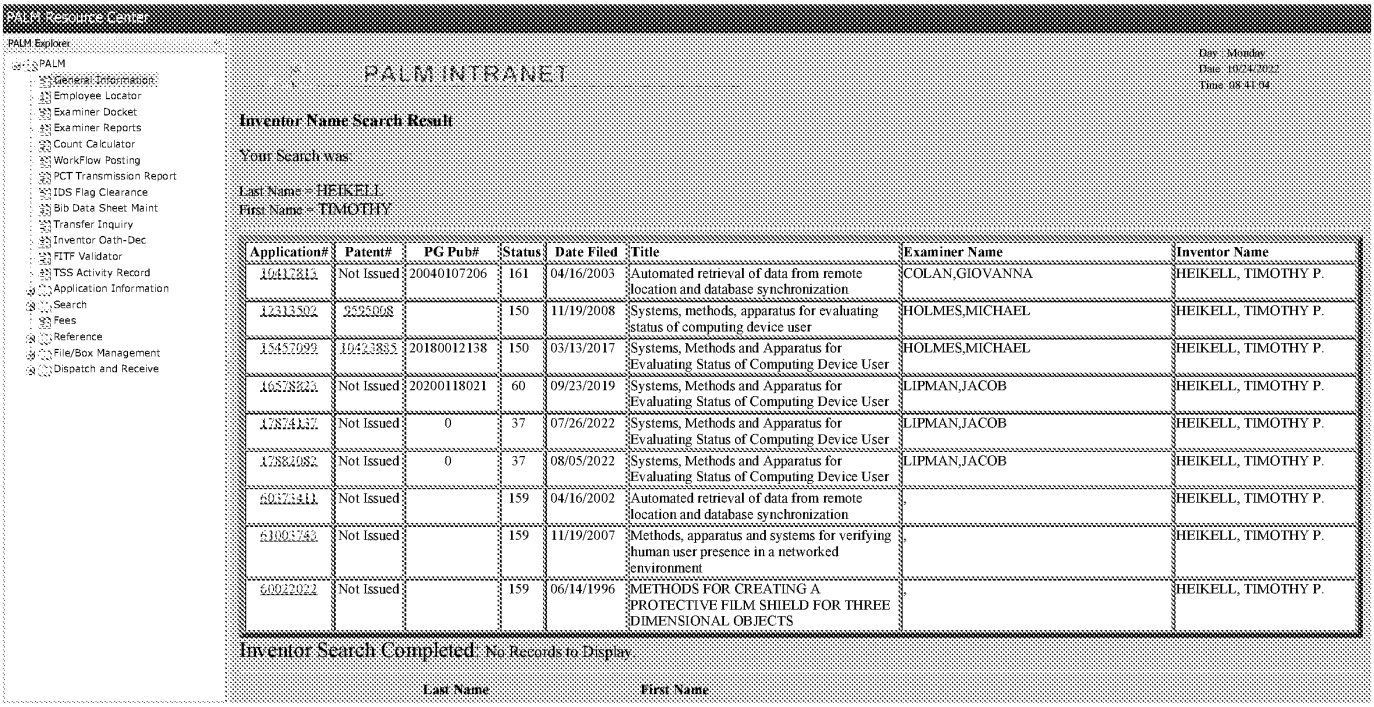
L60	564	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND (human person automat$7 bot) WITH compar$4 WITH (prior previous$4 histor$7)	(US-PGPUB; USPAT)	OR	ON	ON	2022/10/23 04:39 PM
L61	257	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND (human person automat$7 bot) WITH compar$4 near4 (prior previous$4 histor$7)	(US-PGPUB; USPAT)	OR	ON	ON	2022/10/23 04:39 PM
L62	3	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND normal WITH (human person automat$7 bot) WITH compar$4 near4 (prior previous$4 histor$7)	(US-PGPUB; USPAT)	OR	ON	ON	2022/10/23 04:41 PM
L63	9	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND normal WITH (human person automat$7 bot) WITH captcha	(US-PGPUB; USPAT)	OR	ON	ON	2022/10/23 04:56 PM
L64	11	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND captcha WITH (human person automat$7 bot) WITH compar$4 near4 (prior previous$4 histor$7)	(US-PGPUB; USPAT)	OR	ON	ON	2022/10/23 04:56 PM
L65	121	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND captcha WITH (human person automat$7 bot) WITH (prior previous$4 histor$7)	(US-PGPUB; USPAT)	OR	ON	ON	2022/10/23 04:56 PM
L66	445	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND captcha AND	(US-PGPUB; USPAT)	OR	ON	ON	2022/10/23 04:57 PM

L67	27082	(human person automat$7 bot) WITH (prior previous$4 histor$7) (G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc.	(US-PGPUB; USPAT)	OR	ON	ON	2022/10/24 11:24 AM

PE2E SEARCH - Search History (Interference)

There are no Interference searches to show.





Inventor Name Search Result

Your Search was:

Last Name = HEIKELL
First Name = TIMOTHY

Application#	Patent#	PG Pub#	Status	Date Filed	Title	Examiner Name	Inventor Name
10417815	Not Issued	20040107206	161	04/16/2003	Automated retrieval of data from remote location and database synchronization	COLAN,GIOVANNA	HEIKELL, TIMOTHY P.
12313502	7925008		150	11/19/2008	Systems, methods, apparatus for evaluating status of computing device user	HOLMES,MICHAEL	HEIKELL, TIMOTHY P.
15457099	10423885	20180012138	150	03/13/2017	Systems, Methods and Apparatus for Evaluating Status of Computing Device User	HOLMES,MICHAEL	HEIKELL, TIMOTHY P.
16578025	Not Issued	20200118021	60	09/23/2019	Systems, Methods and Apparatus for Evaluating Status of Computing Device User	LIPMAN,JACOB	HEIKELL, TIMOTHY P.
17874137	Not Issued	0	37	07/26/2022	Systems, Methods and Apparatus for Evaluating Status of Computing Device User	LIPMAN,JACOB	HEIKELL, TIMOTHY P.
17882082	Not Issued	0	37	08/05/2022	Systems, Methods and Apparatus for Evaluating Status of Computing Device User	LIPMAN,JACOB	HEIKELL, TIMOTHY P.
60373411	Not Issued		159	04/16/2002	Automated retrieval of data from remote location and database synchronization	,	HEIKELL, TIMOTHY P.
61003743	Not Issued		159	11/19/2007	Methods, apparatus and systems for verifying human user presence in a networked environment	,	HEIKELL, TIMOTHY P.
60022022	Not Issued		159	06/14/1996	METHODS FOR CREATING A PROTECTIVE FILM SHIELD FOR THREE DIMENSIONAL OBJECTS	,	HEIKELL, TIMOTHY P.

Inventor Search Completed: No Records to Display.

Last Name **First Name**

Electronic Acknowledgement Receipt

EFS ID:	47059428
Application Number:	17882082
International Application Number:	
Confirmation Number:	4844
Title of Invention:	Systems, Methods and Apparatus for Evaluating Status of Computing Device User
First Named Inventor/Applicant Name:	Timothy P. Heikell
Customer Number:	29150
Filer:	David Alan Divine/Phillip Cameron
Filer Authorized By:	David Alan Divine
Attorney Docket Number:	N106-0002USC4
Receipt Date:	22-NOV-2022
Filing Date:	05-AUG-2022
Time Stamp:	16:18:47
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	no

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Non Patent Literature	2SN6341_NPL_043_Nobots_EX_B-6_Reduced_Flat_Portrait.pdf	951651 1f2c4d550b2f7905eb34fe1693dcf849410a7b9c	no	150

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2	Non Patent Literature	2SN6342_NPL_044_Nobots_Ex_B-7_Reduced_Flat_Portrait.pdf	937866 d124422ee1846433166c5bc828e8dda67c5e9c02	no	142
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3	Non Patent Literature	2SN6346_NPLO_045_Nobots_Ex_B-8_Reduced_Flat_Portrait.pdf	2332389 4bd7cdc4de9446cb6ac0e12483280a7db61a85b7	no	239
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4	Non Patent Literature	2SN6349_NPL_046_Nobots_EX_C_Reduced_Flat_Portrait.pdf	524081 54b0f771a9711b9fd752138c96155be67f781c34	no	61
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5	Non Patent Literature	2SN6359_NPL_047_Nobots_Ex_D_Reduced_Flat_Portrait.pdf	476751 63d26a8142b5c9273be722699bdaf4933981797b	no	53
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6	Non Patent Literature	2SJ0182_NPL_048_Flanagan_JavaScript_Reduced.pdf	12947221 f135124c0f48ffa9fee94ffeb6c967ab3237e94b	no	1023
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7	Non Patent Literature	2SJ3161_NPL_049_Fung_Detecting_Cheaters_Reduced.pdf	188839 781d6880eabfdcfa086f1c96738c38277f3da6a1	no	6
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8	Non Patent Literature	2SJ0203_NPL_050_Ghosemanjunder_Gogle_Click_Fraud_Flat.pdf	5133047 6f6a1ffd2c0fcea4fc1e195c2fb40fabe5fffb29	no	3
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9	Non Patent Literature	2SJ3459_NPL_051_Golle_Machine_Learning_Attacks_Against_Flat.pdf	4008324 76e734c1250794468df5eeb6e9f208dfbe29f70f	no	9
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10	Non Patent Literature	2SI9715_NPL_052_Golle_Preventing_Bots_From_Playing_Flat.pdf	20398084 57af667f3192885be28c1883f793324205d16837	no	10
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11	Non Patent Literature	2SJ3546_NPL_053_Gossweiler_Whats_Up_CAPTCHA_Flat.pdf	19786400 edcf3f2b5f4bd4021036ae67325ba0ee286b633b	no	10
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12	Non Patent Literature	2SI9729_NPL_054_Immorlica_Click_Fraud_Resistant_Methods_Flat.pdf	3153398 270a13a42a5e0cdc2a2de5881860b518bbc6768f	no	13
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13	Non Patent Literature	2SI9873_NPL_055_Ives_Web_Marketers_Fearful_Flat.pdf	4001462 db40d3cc14d719f6d3c6ecc9e5597786c97c777c	no	3
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14	Non Patent Literature	2SI8397_NPL_056_Part_1-pp_1-100_Jain_Biometrics_Personal_Identification_Reduced.pdf	15921198 436e6b8f40ece4c7afa4125a8111aa9ed007d3d6	no	100
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15	Non Patent Literature	2SI8397_NPL_056_Part_2-pp_101-200_Jain_Biometrics_Personal_Identification_Reduced.pdf	16278356 3a73cbe7597c319a8e9240ba81e36d361b237250	no	100
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16	Non Patent Literature	2SI8397_NPL_056_Part_3-pp_201-300_Jain_Biometrics_Personal_Identification_Reduced.pdf	17006463 8abfaba530064f6602c505039539f3aa00b00e4a	no	100
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17	Non Patent Literature	2SI8397_NPL_056_Part_4-pp_301-411_Jain_Biometrics_Personal_Identification_Reduced.pdf	18167380 6742bbf2d2ab35eae767640a4687fabc47221251	no	111
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18	Non Patent Literature	2SJ3507_NPL_057_Part_1_pp_1-138_Jain_Handbook_of_Biometrics_Flat_Reduced_Portrait_Reduced_Again.pdf	23425784 7d940db139b3de4b1dbab6fc15a6a459f2a060e2	no	138
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19	Non Patent Literature	2SJ3507_NPL_057_Part_2_pp_139-276_Jain_Handbook_of_Biometrics_Reduced_Portrait_Reduced_Again.pdf	23486406 9dc5870ed0acbc0e2f3f2067e28c4aa4ad852a96	no	138
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21	Non Patent Literature	2SJ3507_NPL_057_Part_4_pp_351-450_Jain_Handbook_of_Biometrics__Reduced_Portrait_Reduced.pdf	19763144 4786e8b75d156116bcb4075915ac6038a14bd9db	no	100
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22	Non Patent Literature	2SJ3507_NPL_057_Part_5_pp_451-550_Jain_Handbook_of_Biometrics__Reduced_Portrait_Reduced.pdf	18996525 96d696e7abcc1a07b4714104e04c45351955fa81	no	100
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23	Non Patent Literature	2SJ3576_PL_058_Part_1_p_1-120_Jakobsson_Crimeware_Flat_Reduced.pdf	18156659 3ff6e38edf51d7c44d1f57da6de5a01e33ecb433	no	120
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24	Non Patent Literature	2SJ3576_PL_058_Part_2_p_121-240_Jakobsson_Crimeware_Flat_Reduced.pdf	20927142 9161b6dc417a36562229c8dab3c2662b9f01405d	no	120
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25	Non Patent Literature	2SJ3576_PL_058_Part_3_p_241-360_Jakobsson_Crimeware_Flat_Reduced.pdf	19795035 a3de3fcc911d4fc8c26761d0c7bc3f169290dd2b	no	120
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26	Non Patent Literature	2SJ3576_PL_058_Part_4_p_361-480_Jakobsson_Crimeware_Flat_Reduced.pdf	20611532 bdf1a5c7c972060ab6644441c0ad7e418f2c9fd1	no	120
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27	Non Patent Literature	2SJ3576_PL_058_Part_5_p_481-597_Jakobsson_Crimeware_Flat_Reduced.pdf	19544957 4fbd02b0b95d7a026080c0c52b6b88e2d0c3d2b6	no	117
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28	Non Patent Literature	DN2SJ3360_NPL_059_Koch_PPK_on_JavaScript_Reduced.PDF	11891365 6d7995989de3885841ca9cf3f60ae44e0b52e98a	no	530
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29	Non Patent Literature	2SI8543_NPL_060_Kochanski_A_Reverse_Turing_Reduced.PDF	187912 54adb7dddf06cbf9e05ace1958a9ce44506ebc97	no	4
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30	Non Patent Literature	2SJ0274_NPL_061_Part_1_pp_1-120_Larsen_An_Introduction_to_MathematicaL_Statistics_Re-Reduced.pdf	17654733 e21800d73939116ee43f9e978127d1aefe47f639	no	120
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31	Non Patent Literature	2SJ0274_NPL_061_Part_2_pp_121-240_Larsen_An_Introduction_to_MathematicaL_Statistics_Re-Reduced.pdf	16432533 f928ab9d8d747fd74538160303369bcca834e0b2	no	120
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32	Non Patent Literature	2SJ0274_NPL_061_Part_3_pp_241-360_Larsen_An_Introduction_to_MathematicaL_Statistics_Re-Reduced.pdf	15698952 46277000f217114e3fc25b8439710d3e11e8af3c	no	120
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34	Non Patent Literature	2SJ0274_NPL_061_Part_5_pp_481-600_Larsen_An_Introduction_to_MathematicaL_Statistics_Re-Reduced.pdf	17020254 e53cce8f3bbc1128a3e04d8719205610d47c94ee	no	120
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35	Non Patent Literature	2SJ0274_NPL_061_Part_6_pp_601-720_Larsen_An_Introduction_to_MathematicaL_Statistics_Re-Reduced.pdf	15469925 4c76e3456801c1f29f84347082b7f08667eb549a	no	120
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36	Non Patent Literature	2SJ0274_NPL_061_Part_7_pp_721-840_Larsen_An_Introduction_to_MathematicaL_Statistics_Re-Reduced.pdf	16883786 185f700e407d3a66b7edebecb460fddcf2433375	no	120
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37	Non Patent Literature	2SJ0274_NPL_061_Part_8_pp_841-930_Larsen_An_Introduction_to_MathematicaL_Statistics_Re-Reduced.pdf	13981924 21ce2d7577ef3ed314de52de6046e75ef763812e	no	90
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38	Non Patent Literature	2SI9935_NPL_062_Lopresti_Leveraging_the_CAPTCHA_Problem_Reduced_Portrait.PDF	2180621 18a0d7522ff46fb3f9519319dab8a85fd5bbe652	no	26
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39	Non Patent Literature	2SJ0332_NPL_063_Mann_How_Click_Fraud_Reduced.PDF	233897 3bdbbb59c097021c73f3add37795d70cdbccd6e4	no	4
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40	Non Patent Literature	2SI9953_NPL_064_May_Escape_from_CAPTCHA_Reduced.PDF	1027662 f94849aaaa963adec73bc6cdf94ec0ecbc30edd1	no	25
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41	Non Patent Literature	2SI9973_NPL_065_May_Inaccessibility_of_CAPTCHA_Reduced.PDF	802363 176fbfbc8a2b141af66269c94b5fbcc148c0931f	no	7
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42	Non Patent Literature	2SI9202_NPL_066_Part_1_pp_1-120_McConnell_Code_Complete_Flat_Reduced.PDF	9884317 17fe46725fb1c830474640466c98e90825a527ab	no	120
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43	Non Patent Literature	2SI9202_NPL_066_Part_2_pp_121-200_McConnell_Code_Complete_Reduced.PDF	7115710 7ae78cb5b71a2bfd00258125f96fb8e150dfe44c	no	80
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44	Non Patent Literature	2SI9202_NPL_066_Part_3_pp_201-300_McConnell_Code_Complete_Reduced.PDF	7820613 ef56efce07b5395dfad47997c1c5d120053b01af	no	100
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45	Non Patent Literature	2SI9202_NPL_066_Part_4_pp_301-400_McConnell_Code_Complete_Reduced.PDF	7430896 dc8cc6d38dbc7ceb1452975c8a5b978ea60634a7	no	100
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Information:					
46	Non Patent Literature	2SI9202_NPL_066_Part_5_pp_401-500_McConnell_Code_Complete_Reduced.PDF	7295168 d10822663b4c69ff487ea9c5bbe184ff058a26c8	no	100
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47	Non Patent Literature	2SI9202_NPL_066_Part_6_pp_501-600_McConnell_Code_Complete_Reduced.PDF	8402466 0c8597885813fd0907cc00349c7f99540569c010	no	100
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48	Non Patent Literature	2SI9202_NPL_066_Part_7_pp_601-700_McConnell_Code_Complete_Reduced.PDF	7417544 6bd0486cc315bb845214e8e79d9941e019a12662	no	100
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49	Non Patent Literature	2SI9202_NPL_066_Part_8_pp_701-800_McConnell_Code_Complete_Reduced.PDF	7669353 251e49eddc9e92db13a1561ccd741ff45239cd81	no	100
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50	Non Patent Literature	2SI9202_NPL_066_Part_9_pp_801-900_McConnell_Code_Complete_Reduced.PDF	7925122 5c6ecf2084b80ce2d7b7a9f6c2c49366d7f2ffa6	no	100
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Information:					

51	Non Patent Literature	2SI9202_NPL_066_Part_10_pp_901-974_McConnell_Code_Complete_Reduced.PDF	6504753 58f196ae449f886d81abbdf1bfa4153ed09a71eb	no	74
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Information:					
52	Non Patent Literature	NPL_067_Microsoft_Corporation_Online_Video.PDF	88351 a7a2e29a7c8ee9cfb846f31c8e24e79b3c90230c	no	1
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Information:					
53	Non Patent Literature	2SI8657_NPL_068_Part_1_pp_1-100_Moncur_Sams_Tech_Yourself_Java_Reduced.PDF	8821102 b171003f043f7b1f01edc28b643f6f09f9e65f1a	no	100
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Information:					
54	Non Patent Literature	2SI8657_NPL_068_Part_2_pp_101-200_Moncur_Sams_Tech_Yourself_Java_Reduced.PDF	9188211 fd2409321538bc601c0a0b1c2bcf6a1c4219b747	no	100
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Information:					
55	Non Patent Literature	2SI8657_NPL_068_Part_3_pp_201-320_Moncur_Sams_Tech_Yourself_Java_Reduced.PDF	11108645 e185b11a24c393f11d7b54b9bb6ec876d60d86a5	no	120
Warnings:					
Information:					
56	Non Patent Literature	2SI8657_NPL_068_Part_4_pp_321-445_Moncur_Sams_Tech_Yourself_Java_Reduced.PDF	11427676 beb8989a1bf400ee65e6d1b5a7160b7729021324	no	125
Warnings:					
Information:					
57	Non Patent Literature	2SE3010_NPL_070_OA_dtd_10-27-22_16578823_N106-0002USC2_Reduced.PDF	352048 e9cb4da9cc8d1a15f0e338496e272910b4c1f2ec	no	9
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Electronic Acknowledgement Receipt	
EFS ID:	47077433
Application Number:	17882082
International Application Number:	
Confirmation Number:	4844
Title of Invention:	Systems, Methods and Apparatus for Evaluating Status of Computing Device User
First Named Inventor/Applicant Name:	Timothy P. Heikell
Customer Number:	29150
Filer:	Robert Goff Hartman/Toni Jorgensen
Filer Authorized By:	Robert Goff Hartman
Attorney Docket Number:	N106-0002USC4
Receipt Date:	22-NOV-2022
Filing Date:	05-AUG-2022
Time Stamp:	17:49:24
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	no

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Non Patent Literature	2SU0325.PDF	11583943 d9416fb4a897c0347b6c17dd32c61c248aa63487	no	120

Warnings:

Information:					
2	Non Patent Literature	2SU0326.PDF	12045831 8077125a22fd40d2c3e7107cad0b5f8f19e93e38	no	120
Warnings:					
Information:					
3	Non Patent Literature	2SU0327.PDF	12606675 e8d00bd11942d3bc883584024444816e545a0c905	no	120
Warnings:					
Information:					
4	Non Patent Literature	2SU0328.PDF	6476818 c8654c9ce12bd37eeb954eca93443c38bcf788a0	no	60
Warnings:					
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INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)		
	Application Number	17882082
	Filing Date	2022-08-05
	First Named Inventor	Timothy P. Heikell
	Art Unit	2434
	Examiner Name	
	Attorney Docket Number	N106-0002USC4

U.S.PATENTS						
Examiner Initial*	Cite No	Patent Number	Kind Code[1]	Issue Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear
	1	5375244	A	1994-12-20	McNair	
	2	7680891	B1	2010-03-16	Pongsajapan	
	3	7945952	B1	2011-05-17	Behforooz	
	4	8056129	B2	2011-11-08	Guslerll, et al.	
	5	8413250	B1	2013-04-02	Krynski	
	6	8938395	B2	2015-01-20	Willner, et al.	
If you wish to add additional U.S. Patent citation information please click the Add button.						
U.S.PATENT APPLICATION PUBLICATIONS						
Examiner Initial*	Cite No	Publication Number	Kind Code[1]	Publication Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear
	1	20060015390	A1	2006-01-19	Rijsinghani, et al.	

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	Examiner Name	
	Attorney Docket Number	N106-0002USC4

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	5	20100070620	A1	2013-04-30	Awadallah, et al.	
	6	20150112892	A1	2015-04-23	Kaminsky, et al.	

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FOREIGN PATENT DOCUMENTS

Examiner Initial*	Cite No	Foreign Document Number[3]	Country Code[2]	Kind Code[4]	Publication Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear	T[5]
	1	JP2007213409	JP	A	2007-08-23	FUJITSU LTD		☐
	2	WO2007090605	WO	A1	2007-08-16	MEDIAKEY LTD		☐

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NON-PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc), date, pages(s), volume-issue number(s), publisher, city and/or country where published.	T[5]
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	Art Unit	2434
	Examiner Name	
	Attorney Docket Number	N106-0002USC4

	2	Ahn, et al., "Human computation" Synthesis lectures on artificial intelligence and machine learning, Vol 5, No. 3, June 2011, pp. 1-121	☐
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	Attorney Docket Number	N106-0002USC4

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	29	Nobots LLC v Google LLC, "GOOGLE'S PRELIMINARY INVALIDITY AND SUBJECT-MATTER INELIGIBILITY CONTENTIONS, Exhibit A-10", Case No. 6:21-cv-1290-ADA, IN THE UNITED STATES DISTRICT COURT FOR THE WESTERN DISTRICT OF TEXAS WACO DIVISION, Ex. A-10 - 008 Claim Chart for Tanzer, pp. 1-211	☐
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	34	Nobots LLC v Google LLC, "GOOGLE'S PRELIMINARY INVALIDITY AND SUBJECT-MATTER INELIGIBILITY CONTENTIONS, Exhibit A-4 008", Case No. 6:21-cv-1290-ADA, IN THE UNITED STATES DISTRICT COURT FOR THE WESTERN DISTRICT OF TEXAS WACO DIVISION, Ex. A-4 - 008 Claim Chart for O'Connell I, pp. 1-154	☐

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)		
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	Filing Date	2022-08-05
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	Art Unit	2434
	Examiner Name	
	Attorney Docket Number	N106-0002USC4

	35	Nobots LLC v Google LLC, "GOOGLE'S PRELIMINARY INVALIDITY AND SUBJECT-MATTER INELIGIBILITY CONTENTIONS, Exhibit A-5 008", Case No. 6:21-cv-1290-ADA, IN THE UNITED STATES DISTRICT COURT FOR THE WESTERN DISTRICT OF TEXAS WACO DIVISION, Ex. A-5 - 008 Claim Chart for Krynski, pp. 1-178	☐
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	43	Nobots LLC v Google LLC, "GOOGLE'S PRELIMINARY INVALIDITY AND SUBJECT-MATTER INELIGIBILITY CONTENTIONS, Exhibit B-4 885", Case No. 6:21-cv-1290-ADA, IN THE UNITED STATES DISTRICT COURT FOR THE WESTERN DISTRICT OF TEXAS WACO DIVISION, Ex. B-4 - 885 Claim Chart for Meek, pp. 1-157	☐
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	Art Unit	2434
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	Application Number	17882082
	Filing Date	2022-08-05
	First Named Inventor	Timothy P. Heikell
	Art Unit	2434
	Examiner Name	
	Attorney Docket Number	N106-0002USC4

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Application Number:	17882082
Filing Date:	05-Aug-2022
Title of Invention:	Systems, Methods and Apparatus for Evaluating Status of Computing Device User
First Named Inventor/Applicant Name:	Timothy P. Heikell
Filer:	Robert Goff Hartman/Toni Jorgensen
Attorney Docket Number:	N106-0002USC4
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Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
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Filer:	Robert Goff Hartman/Toni Jorgensen
Filer Authorized By:	Robert Goff Hartman
Attorney Docket Number:	N106-0002USC4
Receipt Date:	22-NOV-2022
Filing Date:	05-AUG-2022
Time Stamp:	17:45:37
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	no

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
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Warnings:

Information:					
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Information:					
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Warnings:					
Information:					
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Warnings:					
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Warnings:					
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Information:					

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Information:					
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Information:					
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Information:					
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Warnings:					
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JP2007213409A LOGIN METHOD AND LOGIN SYSTEM

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The wording below is an initial machine translation of the original publication. To apply more advanced translation technology, use Patent Translate.

[0001] The present invention relates to a login method and a login system when logging in to a system.

[0002] Conventionally, when logging in to a computer system or the like, a user ID and a password are input, and when the ID and password of the user registered in advance are checked and matched, the login is permitted.

[0003] In addition, in order to perform higher authentication of a non-contact IC card, when the non-contact card is held over a reader / writer constituting a communication device, the direction is detected by two antennas and the direction is authenticated. There is a technique to be used (Patent Document 1).特開２００４－３４１７０２号公報

[0004] The former described above has a problem that sufficient security cannot be secured because authentication is performed with a user ID and a password at the time of login.

[0005] In the latter case, authentication can be improved by detecting the orientation of the contactless card held over the reader / writer of the communication device and using this orientation for authentication. There was a problem that.

[0006] In order to solve these problems, the present invention allows a terminal to be equipped with a direction sensor and allows login when the direction sensor included in the terminal faces a predetermined direction in addition to or instead of the user ID and password at the time of login. Like to do.

[0007] The present invention provides a terminal with a direction sensor and allows only a user by logging in when the direction sensor included in the terminal faces a predetermined direction in addition to or instead of the user ID and password at the time of login. It is possible to further strengthen the authentication by authenticating and logging in based on the azimuth known.

[0008] The present invention provides a terminal with an orientation sensor, and allows login only when the orientation sensor of the terminal is facing a predetermined orientation in addition to or instead of the user ID and password when logging in. By authenticating and logging in based on the azimuth, the authentication was further strengthened.

[0009] FIG. 1 shows a system configuration diagram of the present invention. In FIG. 1, a terminal 1 is a portable terminal possessed by a user. Here, an authentication check means 2, an electronic compass display means 3, a password table 4, and various inputs such as a password input 5, an electronic compass output OK. It consists of a range setting 6, an electronic compass input 7, a user operation 8, and the like. Although not shown, the terminal 1 installs and logs in various application programs, logs in to a network not shown in the figure by wire or wireless, logs in to a computer system via the network, and further They log in to various application programs that run on the system.

[0010] The authentication check means 2 checks the authentication, and checks the authentication by referring to the password table 4 based on the input user ID, password, and direction of the electronic compass (FIG. 2 to FIG. 2). 4).

[0011] The electronic compass display means 3 displays the orientation of an electronic compass (not shown) built in the terminal 1 on the screen (see FIGS. 2 to 5).

[0012] The password table 4 is a table in which user IDs, passwords, and directions and widths of electronic compass are registered in advance (see FIGS. 2 to 4).

[0013] The password input 5 is for the user to input a password on the screen of the terminal 1. The electronic compass output OK range setting 6 is for registering (setting) the password in the password table 4 by inputting

the direction of the electronic compass and the width of the electronic compass, which is determined to be login permission when the direction of the electronic compass is OK.

[0014] The electronic compass input 7 is an instruction for taking in the direction of the electronic compass. The user operation 8 is an operation from various users. Here, the user presses a specific key to instruct the electronic compass display means 3 and displays the current direction of the electronic compass built in the terminal 1 on the screen for a predetermined time. It is displayed for confirmation only during the period (see FIGS. 2 to 5).

[0015] Next, the operation of the configuration of FIG. 1 will be described in detail according to the order of the flowchart of FIG. FIG. 2 shows a flowchart for explaining the operation of the present invention.

[0016] 2A is a flowchart for explaining the overall operation, and FIG. 2B is a flowchart for displaying an electronic compass.

[0017] In FIG. 2A, S1 turns on the power. This turns on the power of the terminal 1 of FIG.

[0018] In S2, a password input screen is displayed. This displays the password input screen of FIG. 4 and prompts the user to input a login password.

[0019] In S3, a password is input. In this case, the user inputs a password for logging in to the terminal 1 of FIG. 1 (presses a numeric key or the like to input the password) on the password input screen of FIG. 4 displayed in S2.

[0020] In S4, it is determined whether the password is OK. For this, the authentication check means 2 refers to the password table 4 for the password input by the user in S3, and determines whether it matches the password registered in advance. If YES, the process proceeds to S5. If NO, return to S2 and repeat.

[0021] In S5, it is determined whether the direction check is OK. This obtains the direction of an electronic compass (not shown) built in the terminal 1 of FIG. 1 between S1 and S4, and the direction of the electronic compass. It is determined whether it is within the range of azimuth and width registered in advance in the password table 4 of FIG. In the case of YES, the direction of the electronic compass built in the terminal 1 of FIG. 1 (that is, the direction of the terminal 1) is within the range of the direction and its width registered in the password table 4 in advance, and the authentication is OK. To determine. If yes, allow login. In the case of NO, the process returns to S2 and is repeated a predetermined number of times (for example, 3 times).

[0022] As described above, after the user turns on the terminal 1 in FIG. 1 (for example, in the case of the openable portable terminal 1, the user turns on the power automatically) and then inputs the password from the screen, the password is changed. When it matches the one registered in the password table 4 in advance, it is determined that the authentication is OK, and further, the orientation of the electronic compass (not shown) built in the terminal 1 of FIG. 1 when the power is turned on (or the latest) is acquired. When the acquired orientation is within the range of the orientation registered in the password table 4 and its width, it is determined that the orientation authentication is OK, and login is permitted when both the password and the orientation authentication are OK. It becomes possible to do. Accordingly, authentication can be further strengthened by determining authentication based on the direction of the electronic compass and permitting login in addition to or without a password.

[0023] In FIG. 2B, S11 determines whether the specific button has been pressed. This is to determine whether a predetermined button (for example, a specific button known only to the user) for displaying the electronic compass has been pressed. If YES, the process proceeds to S12. If NO, repeat S11 and wait.

[0024] S12 displays an electronic compass. In step S13, it is determined whether the set time has been exceeded. In the case of YES, the electronic compass is erased in S14, and the process returns to S11. If NO, the process returns to S12 and an electronic compass is displayed.

[0025] As described above, the user presses a specific button that only the user knows the direction of the electronic compass built in the terminal 1 of FIG. 1 to display the electronic compass, and the displayed electronic compass is displayed in the password table 4. Rotate the terminal 1 so that it is within the range determined by the azimuth and its width, and then align the azimuth, and then enter the password for the

electronic compass in the password table 4 by inputting the specific button or the password of S3. It is possible to input that it is within the range determined by the width.

[0026] FIG. 4 shows an example of a password input screen according to the present invention. The password input screen shown in the figure is an example of the screen displayed in S2 of FIG. 2A described above, and the user inputs the password on the screen (the password is input by sequentially pressing a numeric key or the like). To do).

[0027] FIG. 5 shows an example of an electronic compass screen of the present invention. The illustrated electronic compass screen example shows an example of the electronic compass screen displayed in S12 of FIG. 2B described above.

[0028] FIG. 5A shows an example of the screen 1 displayed with marks having four orientations (one is N direction) as shown in FIG. 5, and FIG. 5B is a screen displaying N directions with an arrow mark. An example of 2 is shown. In the case of the screen 2, it is devised not to let others know that the electronic compass is displayed.

[0029] In the above embodiment, the case where the user logs in to the terminal 1 in FIG. 1 has been described. However, the present invention is not limited to this. (1) After the user logs in to the terminal 1 in FIG. Similarly, when logging in to an application program (for example, an e-mail program) installed in the terminal 1, authentication of the password (further user ID) and the direction of the electronic compass is performed in accordance with the flowchart of FIG. Go and log in when OK.

[0030] (2) When logging in from a terminal 1 to a network not shown in the figure by wire or wirelessly, the password (and user ID) and the direction of the electronic compass are similarly authenticated according to the flowchart of FIG. Allow login when OK.

[0031] (3) After logging in to the network in (2), when logging in to the computer system connected to the network, the password (further, user ID), Authenticate the direction of the electronic compass and allow login when OK.

[0032] (4) Further, when logging in to the computer system in (3) and then logging in to an application program (for example, a database search program) installed in the computer system, the flowchart in FIG. Authenticate the password (further user ID) and the direction of the electronic compass, and permit login when OK.

[0033] The present invention allows a terminal to have an orientation sensor and allows login when the orientation sensor of the terminal faces a predetermined direction in addition to or instead of the user ID and password when logging in, and only the user knows. The present invention relates to a login method and a login system for further strengthening authentication by authenticating and logging in based on a direction.

[0034] It is a system configuration diagram of the present invention.It is an operation | movement explanatory flowchart of this invention.It is an example of the password table of this invention.It is an example of the password input screen of this invention.It is an example of the electronic compass screen of this invention.

[0035] 1: Terminal 2: Authentication check means 3: Electronic compass display means 4: Password table

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
16 August 2007 (16.08.2007)

PCT

(10) International Publication Number
WO 2007/090605 A1

(51) International Patent Classification:
G06Q 30/00 (2006.01)

(21) International Application Number:
PCT/EP2007/000995

(22) International Filing Date: 6 February 2007 (06.02.2007)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
06075254.0 6 February 2006 (06.02.2006) EP

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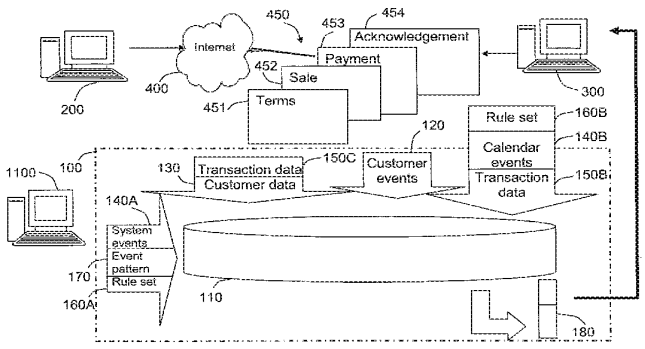
(81) Designated States *(unless otherwise indicated, for every kind of national protection available)*: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.

(84) Designated States *(unless otherwise indicated, for every kind of regional protection available)*: ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:
— *with international search report*
— *before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments*

[Continued on next page]

(54) Title: A METHOD AND A SYSTEM FOR IDENTIFYING POTENTIALLY FRAUDULENT CUSTOMERS IN RELATION TO ELECTRONIC CUSTOMER ACTION BASED SYSTEMS, AND A COMPUTER PROGRAM FOR PERFORMING SAID METHOD



(57) Abstract: The invention concerns a computer-implemented method, system and computer program for performing said method, for identifying potentially fraudulent entities in relation to electronic entity action based systems, associated with for example at least one client website 450. Said method comprises the following steps: providing information at least concerning said entity's behaviour over time in relation to said at least one action based system by monitoring at least one entity induced event 120; and determining said at least one behaviour profile using behaviour classification algorithms to analyse said information in order to identify potentially fraudulent entities or in order to detect the interest of said entity. Accordingly, in a unique way, mathematical analysis may be utilized to process data concerning events in relation to electronic entity action based systems, which are recordable. This provides the possibility of indicating fraud during for example the entire sales process in relation to an ecommerce activity, not merely in direct relation to the payment act, as provided with known fraud detection systems and methods. Examples of entity induced events are entity reactions on the website when being involved in the sale, e.g. the entity is clicking and selecting a certain product item in order to purchase it, or is entering entity data for the transaction, or is moving around between different pages on the merchant website, or is reluctant to enter data or to move around between pages. Further, it is no longer necessary to provide accurate transaction details, such as correct credit card number, or personal entity information, which are to be kept confidential and which are to be validated e.g. against databases containing stolen credit card numbers, in order to provide accurate and timely fraud indication. In addition to being applicable to payment on a merchant's website the disclosed method and system is also capable of detecting fraudulent behaviour in relation to mobile telecommunication networks and in credit card payment systems.

WO 2007/090605 A1

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A METHOD AND A SYSTEM FOR IDENTIFYING POTENTIALLY FRAUDULENT CUSTOMERS IN RELATION TO ELECTRONIC CUSTOMER ACTION BASED SYSTEMS, AND A COMPUTER PROGRAM FOR PERFORMING SAID METHOD

The present invention relates to a method, a system and a computer program for performing said method, for identifying potentially fraudulent customers in relation to electronic customer action based systems.

Electronic customer action based systems, which term comprises electronic systems, wherein the customer's actions are required in the use of the system, such as mobile phone systems, network based commerce activities, and systems for credit card payment, are becoming increasingly important in our society.

Network based commerce activities, which term comprises sales, in particular involving payment, of products or services between consumers or customers and merchants performed through a network, such as the Internet, by the use of e.g. personal computers, Personal Digital Assistants or PDA's, or mobile phones, have gained substantial popularity and prominence in the global economy. The resulting gain and corresponding losses due to fraud encountered in particular in the completion of these payments, i.e. during the completion of the funds transaction, have been increasing. Accordingly, several attempts have been made to conceive methods and systems for reducing or at least detecting payments by fraudulent customers, before these are completed.

The commerce activities in a sale, also a network performed sale, see fig. 1, comprises the collection of activities in relation to consummating the sale, e.g. the merchant displays product/service for sale, entry of a customer, the customer selects the product/service to be provided and request to purchase it, the customer agrees to price and terms of sale, payment is performed, the customer acquires product/service and exits. Network performed sales may further include activities relating to the sale

such as the customer contacting the merchant by e-mail or phone, the merchant contacting the customer to confirm sale, and other sales related activities.

The term "transaction" comprises the activity of completing the payment made on the network, e.g. validating a payment using e.g. a credit card or by transferral of a payment from one bank account to another.

The term "sniffer" comprises a computer that listens to the network traffic between for example a server and the Internet. Such a "sniffer" can construct the relevant events from this traffic and send them to the service providers system.

The term "record of events" comprises the data concerning a specific event such as the character, the time, and the duration of the event.

The term "event" comprises the steps of an interaction between a user and a cell phone, the interaction between a user and a website for ecommerce. In principle, a non-action also constitutes an event.

The term "entity" covers various concepts such as a customer in relation to a website for ecommerce, or a user of a cell phone, or any other concepts that can interact with an action based system.

The term "behaviour profile" comprises the information derived from the analysed data that have been acquired through the tracking and analyzing aspects of the invention. Said information comprise the fraud risk potential, a record of the tracked and analysed events, and a summary of said tracked and analysed events

In a direct sale a consumer or customer enters a merchant's website in order to purchase goods and/or services. During said sale, the consumer generally provides information concerning him/herself and mode of payment, e.g. using a credit card by

entering its number in order to pay for the products/services being offered on said site. The merchant submits the charge to the credit card company and deletes the transaction with the consumer once the credit card company authorizes the charge, in a straight-through type processing.

If the consumer refutes or disputes the charge, claiming he has not ordered the purchase or authorized the transaction, a charge-back occurs on the consumers credit card account, and payment to the merchant is reversed. Not only does the merchant lose a sale, he must also absorb the cost of the non-completed transaction. He is fined every time a charge-back occurs with one of his customers, and if his charge-back percentage of his total sale exceeds a small value, he may be charged with large fines, and ultimately be relieved of his merchant account. The same is true in case of fraudulent transactions, e.g. where the customer appearing on the website is not the owner of the credit card used for payment.

Many products and services are available for sale in a network, such as the Internet, examples of products being SMS-messages or call time available for mobile phones, mail order gifts, ware house items, and of services being hotel or travel bookings, and examples of network based services being long distance performed server updates, downloads of music, movies and other entertainment, and the like. In particular when providing services on the Internet the consummation of the sale with a low risk of fraud is essential to the merchant providing such network based service.

At present, there are many existing systems for detecting fraud in relation to the payments *per se,* where data directly relating to any one payment, e.g. amount, customer and his history, number of items etc, is analyzed according to numerous rules based on different variables. For example a simple fraud detection scheme could analyze a transaction using two rules only, e.g. "if more than X number of orders have been placed within the last Y hours" and "if the total value of the present order is over Z dollars", then the transaction should be considered fraudulent. The

indicator values of X, Y and Z would then be set according to the history of frauds encountered. The first rule, i.e. "more than X numbers of orders have been placed within the last Y hours" is combined with the second rule, i.e. "the total value of the present order is above Z dollars" into a rule set. A rule or rule set may be said to include criteria such as "more than", or "value of ... is above" applied to events such as "X number of order placed within last Y hours". The rule set is the applied to the selected variables encountered during a transaction in order to determined whether the transaction is potentially fraudulent. Some analyzing tools apply weights to each such event in order to rank these events in order of their importance for the combined result of the two or more events.

United States patent application US 2005/154676 discloses an electronic commerce system for monitoring a given customers interaction with a website during the transaction to process an electronic purchase order. A fraud detection mechanism determines the likelihood that the customer is fraudulent based on user-entered information and factors relating to the customers real-time interaction with the website during the transaction.

A system for identification of fraud in relation to credit card payment on a website is disclosed in United States patent application US 2002/0099649. This system takes customer specific data such as the customer's name, shipping address, Email, IP address and credit card number and information concerning the transaction such as amount, items ordered, click-stream through the website prior to the purchase into consideration when determining the likelihood of a given customer being fraudulent.

In United States patent application US 2003/069820 transaction parameters, such as customer name, address, check account number, prior events of fraud in connection to said account or individual, etc. are analyzed and characteristics are identified in order to provide an indication as to whether the transaction is fraudulent. This system breaks down the transaction into a number of select component data parameters and single variable relationships. Points are assigned to each parameter/relationship

based on the information, it represents, and whether it matches with known data. If the sum of points or fraud score exceeds a certain threshold, potential fraud is indicated and the transaction in question is not validated.

In European patent EP 0 669 032 is described a fraud detection system utilizing a complex predictive model in the form of a neural network, which performs self-learning of relationships among variables based on historical transaction data. The system uses the complex model to analyze a transaction and predict whether or not a transaction is potentially fraudulent. Such model is able to automatically correlate relationships among all of the parameters of the transaction to each other, and not just the single variable relationships of the above mentioned detection system. However, such self-learning based systems are complex to structure, difficult to develop, and require significant training and maintenance to maintain accuracy and to understand the results from properly.

The known fraud indication methods and systems, including the ones mentioned above, are applied around a point in time, which lies in direct connection with a specific payment, i.e. in direct relation to the transaction to be completed, see fig. 1, indicated by a black box, e.g. when requesting/receiving a validation check for the transaction. Accordingly, they are applied and used for a limited time before and during the transaction in question, i.e. many calculations and checks are to be performed within a relatively short time period. It is not expedient to provide a fraud determination in direct relation to the transaction in question, because this increases the time period needed for a transaction approval, which may put a strain on non-fraudulent customer patience, is not effective in a web-based environment e.g. for providing the above mentioned web-based services, as well as increases the risk of providing an erroneous positive or negative fraud indication.

Information concerning possible fraudulent individuals and/or payments is thus simply not available to a merchant in the case where a sale has not been

consummated, e.g. when the customer is leaving the website without completing the payment.

Also, a problem of prior art systems have been to decide on and thus limit them to a fixed rule set in order to apply an optimal strategy and apply them in due time to either stop or at least delay a fraudulent transaction in order to reduce the resulting losses from such transactions.

In this light, it is an object of the present invention to provide a computer-implemented system and method, and a computer program for performing said method, using real-time behaviour classification algorithms to identify potentially fraudulent entities in relation to activities in at least one electronic entity action based system, such as a credit card payment system, a telecommunication system for cell phone communication, or a network or website for e-commerce activities, which system, method, and computer program alleviates the above mentioned disadvantages provided by known systems, and which is able to determine a reliable behaviour profile.

This object is achieved according to the invention by a computer-implemented method and system, and computer program for performing said method, using real-time behaviour classification algorithms in order to identify potentially fraudulent entities in relation to activities in at least one electronic entity action based system, such as a website for ecommerce activities, a system for mobile telecommunication, a system for credit card payment, and the like, by monitoring the behaviour of said entity within at least one of said action based systems, said method comprising the following steps: providing input information over time by substantially continuously monitoring at least one of said action based systems concerning the behaviour of said entity in relation to said at least one action based system by tracking a plurality of entity induced events; and sequentially analyzing said input information, at least after each said entity induced event for providing at least one behaviour profile,

wherein the significance and meaning of said entity induced events are substantially dynamical and may change in time; and displaying said behaviour profile.

By continuously calculating a cumulative entity profile based on entity induced events, said events being induced over an extended period of time, the calculation extent and duration needed for each induced event can be reduced significantly as compared to known fraud detection methods in relation to e.g. electronic payment, e.g. website trade, mobile phone payments, server updates, and the like.

Accordingly, in a unique way, by the provision of for example website technology, behaviour analysis utilizing behaviour classification algorithms may be used to track entity behaviour on or in relation to an action based system, i.e. mathematical analysis may be utilized to process data concerning events, which are recordable. This provides the possibility of indicating fraud during the entire interaction with said action based system, not merely in direct relation to for instance the payment act of an ecommerce session, as is provided with known website related fraud detection systems and methods. Examples of entity induced events are customer reactions on a website for ecommerce when being involved in a sale, e.g. the customer is clicking and selecting a certain product item in order to purchase it, or is entering customer data for the transaction, or is moving around between different pages on the merchant website, or is reluctant to enter data or to move around between pages.

Hereby, an alternative or supplement to existing payment or sale fraud detection methods and systems is provided, which allows a merchant to keep track of the behaviour of individual consumers on a website, which may again directly reflect the possibility of these for committing fraudulent transactions over time.

Further, it is no longer necessary or it is at least optional to analyze the transaction process for a confirmed website sale in order to determine the possibility of fraudulent customer transactions. Based on a client and/or system provider

determined selection of customer events to be tracked by said system and method, a reliable behaviour profile is determined, which leads to a reliable identification of fraudulent website customers.

Further, it is no longer necessary in order to provide accurate and timely fraud indication to provide both accurate and sensitive transaction details, such as correct credit card number, or personal customer information, which are to be kept confidential and which are to be validated e.g. against databases containing stolen credit card numbers. Such details may obviously optionally also be provided, however, it is not necessary for sensitive personal or financial data to be entered by a entity for the fraud tracking to effectively indicate a positive fraud situation. Further, the provision of inaccurate data may be tracked and indicated by the inventive system and method.

One or more action based systems may be surveyed simultaneously by the method and system according to the invention in ways known to the skilled person, e.g. when a merchant is providing more than one website, or if the fraud indication system is provided by a fraud system provider externally from said merchant. The fraud system provider is thus able to concurrently scan and survey several websites from different merchants subscribing to such service. Further, the merchant or system provider is provided the opportunity to correlate information between the websites being surveyed.

A computer program for performing the method according to the invention is provided according to claim 82. Preferably, said program is installable partly in relation to the action based system, partly in relation to the fraud indication service provider's action based system. A default rule set, and code for including the above mentioned other embodiments of the method and system according to the invention may also be provided in code, said computer program being executable e.g. from the client's action based system. Thus, the computer implemented method and system is

able to be installed and run from a client's or fraud system provider's computer systems or servers, such as preferably web servers on a website for providing fraud indications.

In a preferred embodiment of the method according to the invention, said at least one behaviour profile is determined substantially continually and at least after each entity induced event in relation to said at least one action based system, thereby providing at least one substantially time variable continuous behaviour profile. Accordingly, a behaviour profile is provided continuously and for every stage of the entity activity on the action based system, which increases the reliability of the behaviour profile determined. Thus, the fraud indication is not based on a transaction being performed nor depending upon said transaction being completed. This is a major advantage, because fraud may thus be determined even without for example a payment on a website being performed. Further, it is possible not only to indicate suspicious behaviour in connection with an interaction with the action based system, but also to indicate suspicious behaviour in connection with the entity or/and the payment and/or the service/product delivery in question.

In a preferred embodiment of the method according to the invention, said at least one behaviour profile is determined by registering from which action based system said entity entered said client's said at least one action based system and/or by placing for example a "sniffer" in front of the web server of the action based system, said "sniffer" being a computer that listens to the network traffic between for instance a server and the internet and/or by online use of log files from for instance a the web server hosting an ecommerce website, said log files comprising all movements on said website and/or by collecting event information directly on the customer's own PC through for example via a plug-in on the clients web browser.

Alternatively, in another embodiment of the method according to the invention said at least one behaviour profile is determined intermittently by the client after tracking

said at least one entity induced event in relation to said at least one action based system, thereby providing at least one substantially time variable intermittent behaviour profile. Thereby, the fraudulent entity may be identified at predetermined points in time, based on batches of tracked events and other information, such as before and/or after a transaction is being authorized in a website based ecommerce system. This reduces the need for continuous communication between the action based system part and the analyzing part of the system.

In two further embodiments of the method according to the invention said at least one behaviour profile is determined at least right before and/or right after a transaction for a payment is authorized in a website based ecommerce system. Accordingly, a behaviour profile is determined for an identification of a fraudulent entity before the transaction is authorized, i.e. there is a reduced risk of a charge-back occurring due to fraud. When performing the determination after the transaction authorisation, the client such as a merchant and/or a payment provider may be provided with an indication as to the likelihood of a charge-back being experienced with the transaction, in which case data concerning the fraud risk and the transaction may be supplied to the merchant for a decision of whether to ship or perform the ordered product or serve, respectively.

In one embodiment of the method according to the invention, said information further comprises environment induced events, comprising system and/or calendar induced events. Thus, the stability of the method and system is increased, and the reliability of the determined behaviour profile is increased, based on further information concerning system induced events, e.g. system down times, system maintenance periods, system updates, etc, and calendar induced events, e.g. the determination of the behaviour profile is able to distinguish fraud related sale during a low season, e.g. near the end of the month, and during a high season, e.g. the days before Christmas, the days after Thanksgiving in the US, during a promotional week

etc, because the number of items being bought would vary substantially accordingly, and such natural variation would not indicate any type of fraud.

In another embodiment of the method according to the invention, said information further comprises data concerning the payment, comprising transaction data and/or customer data. Thus, the reliability of the determined behaviour profile is further increased, based on such information, which transaction data may comprise customer, client and/or fraud system provider input data, e.g. comprising credit card details, customer transaction history data, and transaction type data, respectively. Such data concerning the payment is optional.

In a further embodiment of the method according to the invention, the step of determining comprises applying a timeline sequence analysis onto said information. Accordingly, the customer induced events being tracked and other information, provided from or in relation to the sale, may be applied during determination in such a way, that a reliable behaviour profile is derivable, which is not dependent upon a high number of tracked events being recorded. Further, the extent and focus of said determination, i.e. number, type and field of events being tracked, may easily be adjusted according to client needs, and may be modified by input from the client, the fraud service provider and/or the system itself, providing an adaptive system. Thus, a flexible determination may be provided.

In a preferred embodiment of the method according to the invention, the step of determining comprises applying a predetermined rule set onto said information. Thus, client and/or fraud system provider are able to create, regulate, expand, and control the use of the information provided for the method and system in a way that may be easily implemented in a computer program structure. The use of weights and other analyzing tools known to the skilled person may also be applied. The predetermined rule set may thus be changing over time and in accordance to client needs and the type of fraud indication service provided.

Alternatively or as a supplement the step of determining comprises applying a predetermined predictive model onto said information. Thus, not only are events and data combined to predict the possibility of fraud, the complexity inherent to the predictive model is not detrimental to the prediction speed of the inventive system and method, because the calculations and determinations based thereupon may be performed progressively by the method and system according to the invention.

In a further embodiment of the method according to the invention, the step of determining comprises applying one or more cross references onto said information. Accordingly, the events tracked and other information retrieved may then be interrelated and correlated, which further improves the behaviour profile determination, providing further flexibility and reliability.

In another embodiment of the method according to the invention, the step of determining comprises comparing a set of recently tracked events with an event pattern history, i.e. a predetermined selection of previously tracked event sets and their corresponding resulting fraud risk potential, respectively, and if there are one or more positive matches, reducing or increasing the fraud risk potential by for instance multiplying with each corresponding resulting fraud risk potential or by using any other relevant mathematical algorithm. Accordingly, an event history inventory may be provided, e.g. by storing the more significant event histories, either for indicating positive fraud or the opposite, manually or automatically, which improves and supplements said determination.

In a further embodiment of the method according to the invention, it further comprises the step of displaying said at least one behaviour profile, for example to said client. In order to make a qualified determination of possible fraud, the behaviour profile is made available to an analyst, which analyst may be provided by the fraud system provider or the client. The behaviour profile may be displayed

continuously, or at certain predetermined moments before, during and after the sale process, or even at a client specified time, e.g. providing a summary of all customers or payments and their associated behaviour profile or the like. The behaviour profile or profiles may be displayed via a separate or the same website, or via a separate link, or in other ways, such as by e-mail or SMS-message.

In yet another embodiment of the method according to the invention, the step of providing information comprises tracking customer induced events within a predetermined time interval. Thus, the fraud determination method and system is available in client and/or system provider selected time intervals, e.g. only during daytime in the clients country for a client reaction to fraud to be timely, or only when the customer is present on the website, thus system use time may be reduced leading to increased client satisfaction with the available fraud determination service, and increased possibility of using system time elsewhere.

In another preferred embodiment of the method according to the invention, said predetermined time interval lies between a first moment, when said customer is entering said at least one website and a second moment, when a transaction has been authorized. Thus, all stages of a specific sale may be surveyed, and a plurality of events may be tracked, such as customer behaviour before, during, and after being on the website, e.g. by tracking the event "customer reads the merchant's e-mail receipt" confirming the sale.

In a further embodiment of the method according to the invention, said predetermined time interval lies between a first moment, when said customer is entering said at least one website and a second moment, when said customer is leaving said at least one website again. Thus, the customer induced events are the actions performed by the customer on or around said website, which may be advantageous in localities, where regulation dictates privacy laws, which reduces the

possibility of surveying or tracking customer behaviour by the method according to the invention.

In a further embodiment of the method according to the invention, said predetermined time interval lies between a first moment, when said customer is entering said at least one website and a second moment, when the purchased item has been made available to said customer. Thus, the customer induced events are not only the actions performed by the customer on or around said website, but also actions not directly related to said website, such as making a phone call to the clients customer support or rapid use of the entire value of a purchased phone card.

In another embodiment of the method according to the invention, the client is a merchant, which provides said at least one website for offering a customer services and/or products in a direct sale. Alternatively, clients may be an organisation, who provides a website for donating charity, or a financial institution providing a possibility of transferring funds, or the like. The term "payment" are thus not to be conceived as a payment in order to receive a web-based virtual or real product or service in the normal sense of the term, but comprises the acts of the customer ordering a funds transaction and the merchant receiving the validation thereof.

In a preferred embodiment of the method according to the invention said client is providing a payment solution for said at least one website. Thus, in the case where the functions of the payment per se have been outsourced to a payment solution provider, such as a financial institution like a bank, a credit card provider, or a loan agency, or such as a private company acting as the third-party risk taker, and/or as the connection between financial institution and merchant, the method and system according to the invention is provided, e.g. as an add-on for the payment solution providers websites or indeed for the websites, which these payment solutions providers are servicing. Thus an increased number of websites may be surveyed at any one time, and synergy effects may be taken advantage of, such as increasing the

number of event pattern histories available, which provides an increased statistical basis, which further increases the reliability of the behaviour profile determination. This increases the need for computer processing power, but this is already a requirement today for such providers, and is to be solved by a simple increase in computer power as it is known to the skilled person.

In a preferred embodiment of the method according to the invention, it further comprises the step of providing at least an indication of positive fraud, i.e. the identification of a fraudulent customer, if said at least one fraud risk potential passes a predetermined threshold or one or more highly suspicious events have occurred. Thus, a human or computer-implemented analyst is not necessary, and is integrally provided. Accordingly, clients may be advised only or as a supplement in the case of a positive fraud situation, and by the same or a separate website, a direct computer line, an e-mail or SMS-message or the like. A display of all or some of the behaviour profiles being determined may also be provided, or alternatively, none are provided, i.e. only positive fraud indications are provided. This reduces the time spent by the client for extracting reliable fraud indications from the fraud indication system.

In yet another embodiment of the method according to the invention said at least one fraud risk potential is providing a binary indication, either positive or negative fraud, such as 1 or 0. Thus, a simple, yet effective indication is provided, either the customer actions indicate he is committing any type of fraud, or they indicate he is not. The above mentioned threshold is thus 1.

In a further embodiment of the method according to the invention said at least one fraud risk potential is divided into levels between predetermined values, such as between 0 and 9. The number and gradations of levels being used are not important, but a graded potential leaves the possibility of providing a further graded fraud indication, such as providing e.g. red, yellow, green areas, i.e. fraud highly likely, less likely and not likely. Many other gradations may be used, all which may be

conceived by the skilled person. The above mentioned threshold may thus be determined according to application or client desire.

In a preferred embodiment of the method according to the invention, at least part of the system events, calendar events, data concerning the payment, the predetermined rule set, and/or cross-references are provided by the client. Thus, these data change according to client needs, and the fraud indication is substantiated by the client communicating or entering in such new or modified data. Accordingly, a flexible determination is provided, since these data may be created, modified, and improved iteratively manually or automatically, e.g. also based on the information being gathered by the method and system according to the invention, and the information provided by the client, both by behaviour on the website and by entering transaction and personal data. Said means for providing client data may be a computer program for performing the method according to the invention running on the client's server or web server, which program is in communication with the fraud system provider's server or web server.

In a further embodiment of the method according to the invention, said at least one website is provided on the Internet. This is an advantage, as the Internet has now becoming accessible to many customers through the use of many different interfaces, such as home or work based computers, mobile phones, PDA's, touch screen applications in home appliances etc. Alternatives are websites on an Intranet, or on other types of LAN's or WAN's.

In a further embodiment of the method according to the invention, a first behaviour profile is determined in order to indicate fraud in relation to a specific transaction using transaction identification. Thus the fraud indication is transaction specific, and indicates customer fraud in relation thereto. Alternatively, other types of behaviour profiles are conceivable, such as customer fraud in relation to several different clients collectively, e.g. one customer being committing bank fraud by switching assets

between banks on their websites, or such as affiliate fraud in relation to an affiliate of the client. Thus, different types of behaviour profiles may be determined which expands the power and width of the system and method according to the invention.

In an alternative embodiment, a second behaviour profile is determined in order to indicate fraud in relation to a specific customer using customer identification. Thus, the fraud indication is related to the customer by using a customer ID, e.g. a customer identifying ID-number provided in a cookie, or the customer entering a customer unique code before entry to the website in question, or the like, as is known to the skilled person.

In a further embodiment of the system according to the invention, the system is provided substantially as part of or in connection with said client's website or websites, for example in the web server for said at least one website. Thus, the client is also the fraud system administrator and this provides the opportunity to adapt the system for a consistent fraud determination, and all updating and parameter input is controlled and maintained by the merchant himself, keeping down system maintenance costs.

In a preferred embodiment of the system according to the invention, the system is provided substantially as part of or in connection with a web server being provided by a fraud system provider. Where this provider is an entity external to the client, maintenance, storage, processing, updating etc. are alleviated for the client. In addition, centralization of the fraud detection process allows multiple clients to pool information resources, thereby enhancing the reliability of the indication of fraudulent customers.

In a further embodiment of the system according to the invention, the system is provided entirely externally to the merchant's at least one website and in communication with it. The fraud system provider is thus allowed full control over

the two parts of the system and it is not necessary for the client to perform neither maintenance nor event tracking for a reliable fraud indication. The system may be provided as a "black box" service, for example, by the external fraud system provider, which eases the maintaining and developing of the system for the fraud system provider, but requires a well established communication with the client for responding to client needs and requirements for the system.

In a further embodiment of the method according to the invention, the method and system are used to detect fraudulent behaviour in relation to mobile telecommunication systems, wherein customers use mobile telecommunication devices, such as cell phones, for phone calls and transferring text messages, pictures and video sequences. A behaviour profile is determined substantially continuously, i.e. at least after each customer induced event in relation to said at least one mobile telecommunication network, by monitoring the behaviour of said customer on said at least one mobile telecommunication network and analyzing said behaviour by applying said real-time behaviour classification algorithms to said at least one customer induced event, thereby providing at least one substantially time variable continuous behaviour profile. This behaviour profile can be displayed to the client, who in this case is the provider of the telecommunication service, and said client can then be warned, when there is a potential misuse so that corrective actions can be taken to prevent further misuse.

Typical data, that are tracked and analyzed in relation to a given customer induced event, are the time, duration and cost pr minute of a given call and the location of the customer and the location of the person receiving the call. Also the number of calls made over a given period of time and the number of text messages or pictures or video sequences send from the mobile telecommunication device within a certain period of time can be used when determining the behaviour profile and the fraud risk potential. The system furthermore records various characteristics for a given customer such as commonly used phone numbers. The behaviour classification

algorithms can also analyse the use of the any additional features that the mobile telecommunication device is equipped with, such as a photo camera, a video camera, an FM radio and a music player such as an mp3 player. The protection against fraud can also be improved by using location-based tracking of the mobile telecommunication device to provide information on where said customer works and socialises, and Bluetooth pairing can be used to generate a profile of who the user socialises with. The behaviour profile and the fraud risk potential also react to data concerning customer behaviour that is not directly related to the mobile telecommunication network, such as phone calls between said customer and said client's customer support. The system is a stand-alone system that can be integrated in existing telecommunication systems.

In a further embodiment of the method according to the invention, the method and system are used to detect fraudulent behaviour in relation to a network for credit card payment, where said customer induced events comprise the withdrawal of money from a bank account, the payment in a shop, the use of the credit card as safety in a hotel, and credit card payment over the internet. The fraud risk potential and the behaviour profile are determined by tracking and analysing various data concerning the customer induced events, such as the number of purchases made per day, the character of the purchased goods, the time of purchase, and the location of purchase. The safely of the system is improved by cross-referencing with customer specific data, such as customer's profession, age, country of residence, travel frequency, hobbies, and interest. The behaviour profile and the fraud risk potential also react to data concerning customer behaviour that is not directly related to the credit card payment network, such as phone calls between said customer and said client's customer support. The system is a stand-alone system that can be integrated in existing credit card payment system.

In a further embodiment, the method and system, and computer program for performing said method can also be used for characterising the behaviour of a given entity in relation to a website, wherein customized display of advertisements and goods is requested. The behaviour classification algorithms are in this context used to classify a given customer's interest in specific types of advertisements and/or goods available on this at least one website, to predict whether said customer is inclined to click on specific advertisement links shown on said at least one website or by specific types of goods.

It will be appreciated, that the system and method disclosed herein relate to alternate divisions of the systems components between the client and the external fraud processing entity and that every possible combination is contemplated no matter how the division of the system component parts and method steps are made.

In the following the invention is described in more detail with reference to the accompanying schematic drawings, in which:

Fig. 1 is an overview illustrating of how known systems for indicating fraud in relation to network based sales have focused upon the transaction process *per se*;

Fig. 2 is an overview of how a system according to the invention for determining fraud in relation to network based sales is able to focus upon the entire sales process;

Fig. 3 is a overview of a preferred embodiment of a system according to the invention being applied to a merchant's website; and

Fig. 4 is a view of a time line indicating tracking of customer activity on a website according to one embodiment of the method according to the present invention.

Behaviour analysis for the sales process is known in relation to sales in the real world. US 2005/102183 describes a monitoring system and method for the brick-and-mortar world, which based on information prior to the point of sale about a shoppers location and behaviour prior to approaching the check-out counter is used at the point of sale for comparing a list of acquired items with a list of purchased items. However, this system does not solve the above mentioned problem on the network, because this action is irrelevant for a web based system and thus this system and method are not applicable. Further, this also is applied at the moment of transaction, reducing the scope and time period for affirmative action.

Within different types of risk based industry, such as the insurance industry, it is known to perform risk analysis such as event sequence studies by providing time lines over different significant events in order for analysts to identify fraudulent customers. However, as far as the applicant is aware, this approach has not until now been applied when analyzing for fraud during sales on the Internet.

As is shown in fig. 2, the method and system according to the present invention is able to provide for instance a reliable identification of website customers, which are likely be fraudulent, during all phases of the sales process, which identification method and system will be explained further below.

In the following, the invention is initially described in relation to detecting fraud in relation to a network or a website for ecommerce. It is to be understood, that the method and system, and the computer program for performing said method according to the present invention can be applied to characterize the behaviour of a given entity in variety of different electronic entity action based systems, such as credit card payment systems, telecommunication systems for cell phone communication, websites for e-commerce activities, and the like.

The following describes the situation, where the electronic entity action based system is a merchant's website, wherein services or products are brought into sale. A merchant may be a provider or seller of goods or services on said website, interactive promotional activity, such as an e-mail or SMS promotional and sales activity, to which the customer is looking to acquire these products or services. A merchant may also be a financial institution, such as a bank or card provider. In this situation, the entity is a customer who is visiting the website in question, i.e. a potential or actual physical or virtual buyer of the service/product, which customer may be another merchant or even an automated system or application performing fraudulent acts on the website, such as an application for using a stolen credit card number for purchases as fast as possible on as many sites as possible. In the following, a client means a client to whom the service of indicating possible fraud for a web based sale is provided, the client often being a merchant selling products or service or alternatively an organisation, who provides a website for donating charity, or a financial institution providing a possibility of transferring funds, or the like. In a preferred embodiment, said client is a provider of a payment solution for said at least one website. The client may further be a website provider of one or more merchant's website or -sites. Further, there may be more than one client for each fraud indication at a time, e.g. fraud may be indicated to the payment solution provider and the merchant, who the payment solution provider is servicing, or alternatively, the fraud indication is provided to a predetermined group of merchants, whom the payment solution provider is servicing.

The term "payment" is thus not to be conceived as a payment for a virtual or real product or service in the normal sense of the word, but comprises all or part of the acts being performed, when the customer is ordering a funds transaction for the merchant to receive the validation thereof.

The term "tracking an event" is intended to mean to collect and record type and e.g. duration of event, possibly including a time indication, such as time of day, and/or at

least beginning and/or end of the duration, where an event is a an occurrence in a particular place, e.g. on a website or in an email system, during a particular time interval. Further data concerning the event may also be recorded during tracking, which data are depending on the event being tracked and may comprise e.g. a unique ID number for customer and/or purchase in question, system condition data, etc.

In fig. 3 is shown an overview of a computer-implemented system 100 according to one embodiment of the invention. Generally, the system 100 is consisting of two parts, a data tracking part (indicated by wide arrows) provided integrally within or in relation to a merchant's website 450, which part is providing data for a data analysis part 110, which part is provided as a service from e.g. a fraud indication service provider 1100. Obviously, other embodiments are conceivable, in which the entire system is tracking and analyzing on and for one specific merchant's website, or where data is collected and analyzed externally from said website by said service provider, or intermediate solutions thereof.

Said fraud indication service provider 1100 is applying his part 110 of the system 100 as a computer implemented service to a merchant or client 300 in order to analyze for and determine fraud risk in connection with the customer performing a network based purchase on said merchant's website 450. The service provider 1100 is using a server to implement the system 100, e.g. using a web server for providing a fraud indication website *per se*, which is accessible only to those merchants, which e.g. subscribes or in other ways are paying for this service.

As shown in fig. 3, the system 100 comprises means 105 for providing information concerning the behaviour of a customer 200 by tracking customer induced events 120 over time on or in relation to a given website 450 being provided by a merchant 300 on the Internet 400. "On or in relation to" is to mean that sales activities, which are not directly performed upon the website 450, may also be tracked by the system 100, such as the registration of an e-mail confirmation of the sale has been read by

the customer 200, or the registration of a telephone call made by the customer 200, e.g. asking about the time of arrival of the product/service, or the like.

Said means for determining said at least one behaviour profile substantially continuously comprises tracking said customers use of the mouse pointer and the corresponding movement of the curser on the display used for viewing said at least one website, and by detecting said customer's typing speed and/or number of corrections made while the entering text on said website, and by detecting whether said customer scrolls to the bottom of said website, and/or reads the receipt of the purchase order and/or prints the receipt of the purchase order, and/or resizes the browser window used for displaying said at least one website or not.

Said means for determining the behaviour profile of said customer comprises means for monitoring the behaviour of said entity prior to the transaction to process the electronic purchase order and/or during the transaction to process the electronic purchase order and/or after the transaction to process the electronic purchase order. Thereby a behaviour profile can be determined even if the customer does not initiate a transaction to process an electronic purchase order or alternatively, the system and method can prevent said customer from entering specific parts of said web site, such as keeping fraudulent customers away for, the part of said web site concerning for instance credit card payment. The system and method according to the invention can also track and monitor the behaviour of said customer in relation to said at least one website after the transaction is final and the purchased item is made available to said customer, thereby providing a method for indicating to said client if a transaction that initially appeared trustworthy in fact is fraudulent or may be fraudulent, so that for instance the actual capture for the funds that were previously authorized can be rejected in order to avoid chargebacks or the shipping of the purchased items can be stopped.

Other parameters that may be evaluated are from which website said customer entered said client's said at least one website or if for example phone calls between said entity and said client's customer support were made.

Various techniques can be applied to acquire data regarding the customer's activities in relation to said at least one website such as placing a "sniffer" in front of the web server of the e-commerce site and/or gathering information from online log files from the web server hosting the ecommerce website, said log files comprising all movements on said website and/or collecting event information directly on the entity's own PC through for example via a plug-in on the clients web browser.

Said means for tracking and reporting of the system 100 of customer induced events 120 on the website 450 may be provided and applied in different ways known to the skilled person. For example, the events may be recorded and sent via a HTTPS, i.e. a secure website connection to the fraud indication service provider 1100 by means of a XML-document, e.g. in HTML code. Alternatively or as a supplement, a predetermined developed Application Programming Interface (API) is installed on the client's web server, and the client sets up and configures his website pages 451 - 454 accordingly. This helps the client in installing and adapting the tracking of customer induced events to his particular needs and the website at hand, and relieves the effort needed to be performed by the API application developer, i.e. the fraud indication service provider 1100. This also allows for a local tracking being performed in conjunction with the website *per se*, and for said website code to transmit individual or batches of customer events having been tracked by said website to the service provider for an analysis being performed there.

As seen in fig. 3, the customer 200 is presented with a website 450 on the Internet 400 when e.g. using a web browser on his or her computer and providing the merchant's web address to said browser. The website 450 is provided by a merchant 300, who maintains and runs it via a web server, which site 450 contains four web

pages: Terms 451, Sales 452, Payment 453, and Acknowledgement 454. It is to be noted, that the website or websites being surveyed by the system 100 may be provided in many different ways, e.g. not comprising any of these types of pages, but instead a single page or a plurality of interrelated or linked websites, or any conceivable collection of pages and functionalities provided therein.

The position and extent of said event tracking means may be decided by the application in question, and may be selected, maintained and adapted accordingly over time by the merchant or client 300 and/or the fraud indication service provider 1100.

For example, one event being tracked, i.e. surveyed and recorded, by means of customer event tracking may be the fact that the customer is opening the Terms page 451 and the duration thereof, e.g. in combination with the event of the customer reopening the Terms page 451, which may indicate a serious and non-fraudulent customer 200. The position surveyed on the website page Sales 452 or trigger to track an event by the system 100 may be to track total number of times, the customer 200 has selected by clicking one or more specific product items, e.g. over a specific time interval or in total. Type and number of product item selected, and time interval between selections of said specific product items may be registered and sent e.g. in batches to the fraud indication service provider 1100.

Other examples of customer induced events 120, which may be tracked, are the following, where the list is not to be perceived as being comprehensive, and further examples are provided below: The customer 200 has

- entered the website page containing the refund policy
- visited the same website more than one week ago
- entered the credit card number incorrectly
- spent more than three minutes on the payment website page
- read the merchant's e-mail receipt

- contacted the merchant's sales support department.

Further, the system 100 comprises means for providing further information concerning the payment itself, e.g. personal customer data 130 provided by the customer 200, and transaction data 150C, 150B provided by the customer 200 and/or merchant 300, respectively, and concerning merchant and/or service provider predetermined environment events such as system events 140A, e.g. down times for the website or for the fraud indication system, and calendar events 140B, such as Christmas time or promoted sales, which increases the number of items purchased in each sale and in total sales.

Information concerning the payment itself is in fact optional, as mentioned above, and may comprise data such as a unique sale ID number, total amount of sale, customer IP address, customer name and postal address for shipping, credit card type and number being entered, and the like, as is known to the skilled person. These data may be supplied by tracking what the customer 200 is entering into the website 450, e.g. on webpage Payment 453, or alternatively or as a supplement be supplied from the merchant's own payment registry (not shown) of each sale, which registry may be in communication with the website 450. Accordingly, in addition to the tracking, a check of these data may be supplied to increase the reliability of the fraud indication, and may provide a basis for a wider selection of events which may be tracked, see above.

Data concerning type and duration of system events 140A may generally be provided by the system manager, i.e. the fraud system provider 1100, but the system events may alternatively or as a supplement be provided by the client 300, if the client is administering all or part of the fraud indication system 100. These system events 140A may for example comprise the duration and time of scheduled updates of the system 100, time periods of merchant's opening hours, periods of expected high or low activities originating from different countries, etc. By providing the system 100

with information concerning system events the determination of the fraud risk potential may be made independent of e.g. system down times.

Data concerning type and duration of calendar events 140B may be provided by the client, i.e. the merchant 300, but may alternatively or as a supplement be provided by the system provider 1100, or inherently as variables or constants in the computer program product. These calendar events may for example comprise expected high sales periods, or low sales periods, or periods in which certain items are known to be sold out or the like. By providing the system 100 with calendar events 140B, the resulting reliability of the fraud risk potential may be increased, and thus the risk of indicating fraud erroneously is decreased. The calendar events 140B may be automatically or manually provided by the merchant 300 to the service provider 1100 upon entry into the system by a simple indication or entry on the fraud indication website of the service provider 1100, or by any other means, such a telephone, mail, SMS-message or the like.

Further, cross references of different types may be used between the different types of data in the system 100 concerning events, e.g. to simultaneous or earlier tracked data concerning the customer or the sale, for example comprising e.g. registration of a change in IP-address, change of country, shorter or longer absences from the website, number of non-concluded sales etc. For the skilled person, about 10-20 different types of very effective cross references are known, and other may be conceived, based on type and amount of the tracked data supplied by the system 100. This provides a wider selection by providing event combinations, based on which the system 100 is able to identify fraudulent customers.

Then, on the basis of the different information 120, 130, 140A, 140B, 150B, 150C, or system provided information an analysis is performed by the system 100 for determining a fraud risk potential 180 in order to identify fraudulent customers. The fraud risk potential determination may be performed in different ways. Preferably, a

timeline event sequence analysis comprising rule sets is applied to the events registered by the system 100, previous customer behavioural history, cross references, and optionally checks on payment details. However, as mentioned initially, other analysis methods known to the skilled person are available, such as applying rule sets exclusively, and/or predictive modelling, and/or and the like. The timeline sequence analysis, can also analyse the behaviour of said customer by monitoring which at least one websites said customer visits and the customer's actions on said at least one website.

The recorded events and input data may be entered into a timeline for an event sequence analysis and used with a predetermined and/or adaptive rule set, e.g. by assigning weights to each event or combination of events, which have taken place. Another alternative or supplement is to use predictive modelling schemes which may provide a fraud risk potential even before the customer has performed a clearly fraudulent act. Events may be assigned different weights in the system. The rule set comprising the rule that a specific event is e.g. indicating positive fraud in all circumstances, another that a (later) event indicates no fraud at all.

The predetermined analysis, using e.g. rule sets and/or predictive modelling may be provided as a default in the system, e.g. as part of the computer program product implementing the method according to the invention, or may be created and/or changed according to specific customer needs and payment experience, and may be created/changed by input provided by the fraud system provider 1100 and/or the client 300.

An example of a piece of pseudo code for analysing the behaviour of the customer can be structured as shown below:

```
CalculateScore:
events := get event set
```

email := extract email from events
name := extract name from events
similarity := calculate similarity of name and email
similarity factor := determine a factor from similarity
checkout speed := calculate time spent from 'presented to the credit card form' to 'credit card number received' from events
previous chargebacks := check if previous chargeback has been registered in events
neural factor := let a trained neural network operate on the events and return a factor
score := (similarity factor + checkout speed constant ^ (1/checkout speed) + chargeback constant * log10(previous chargebacks)) ^ neural factor

In order to illustrate a preferred embodiment of the method and system for use in relation to an event sequence analysis, a time line as shown in fig. 4 which will be described in further detail below, is set up concerning a given, e.g. new customer's behaviour by a series of tracked events for an event sequence analysis. The analysis comprises comparing recently tracked events with an event pattern history 180 while applying rule sets comprising weights to some or all events and cross references therebetween. By having access to event pattern histories, i.e. a predetermined selection of previously tracked event sets, each indicating a corresponding probability of a fraudulent act or resulting fraud risk potential, the system 100 is provided with further information as to whether a customer is real or fraudulent. Said event pattern histories may for example be provided from one or more clients, and/or from the fraud indication service provider 1100 on the basis of events from one or more merchants websites. A series of events tracked from said new customer may match one or more of these patterns, and each such pattern being matched increases or decreases by the corresponding resulting fraud risk potential. The event pattern histories may be predetermined by an automatic process within the system defined

by the client/and or service provider, or manually by the client and/or service provider, e.g. based on weekly, monthly and/or yearly experiences.

In a preferred embodiment, the fraud risk potential 180 and the behaviour profile itself is time variable, i.e. they vary over time as a consequence of it being determined by analysis one or more times, e.g. substantially continually or intermittently over a given time interval. The fraud risk potential 180 may be determined continually or at least one or several predetermined moments in time, as is shown in fig. 4. These moments in time may be right before or after authorizing a credit card, or it may be before the merchant has sent or shipped the service or product, respectively. A continually provided fraud risk potential is an advantage, for example when the system 100 is provided entirely within the client's web server, or when being in continual communication with the client's and/or the service provider's web server or server in order continually monitor the customer or customers visiting the website. In one embodiment, an intermittently provided fraud risk potential and behaviour profile can be determined intermittently upon request from said client or a service provider, which is advantageous for example, when e.g. the analyzing part of the system 100 resides externally from the client's web server or server, in which case the fraud risk potential and/or the positive or negative identification of a fraudulent customer is provided intermittently based on batches of system provided information from the tracking part of the system 100.

The resulting fraud risk potential 180 is a combined value to be regarded as representing the probability of fraud. It 180 may take different forms, depending on preference of the client or provider of the website in question and the application of the system 100. In fig. 3 and 4, it is shown that the potential 180 is graded into several levels, presented as having ten different levels, e.g. from level 0 to level 9, indicating low fraud probability and high fraud probability, respectively. The potential may alternatively be provided with only two levels (not shown), i.e. binary, indicating fraud or no fraud, respectively. Other ways of presenting the risk fraud

potential are known to the skilled person, e.g. with a red, yellow, and green zone (not shown), indicating high, medium and low probability, respectively, and depends on preference of the client or provider of the website in question, and the application of the inventive system, which provides the system 100 with flexibility of display and the possibility of evaluation differentiation.

If the resulting fraud risk potential 180 is determined at a level above a predetermined threshold, an indication of positive fraud or identification of a fraudulent customer, is communicated (indicated in the right hand side of fig. 3 by the broad dark arrow) to a client, this being the merchant 300, which provides the website 450 to be monitored for fraud. He is a client of the fraud system provider 1100, which delivers a service consisting of the results from the fraud indication system 100, i.e. the displaying of the fraud risk potential 180 for each of the presently logged on customers, and an alarm indication and customer identification if one of these fraud risk potentials 180 is exceeding a predetermined threshold value. These results, which may comprise relevant check and alert information, and may comprise one or more positive fraud indications, one or more fraud risk potentials of different types and for different customers, customer ID's, transaction ID's, payment amount, etc., and combinations thereof, may preferably be sent to the client subscribing or paying for the fraud service provided. There are many ways in which these results may be sent to the client, comprising a client accessible web page, e.g. using a code or password, or by displaying the results in the merchant's website to be fraud tracked, or by a communication line to the client web server or computer network, or sending an e-mail or an SMS or the like to the merchant's sales department, or similar way known to the skilled person.

The fraud risk potential or the indication of positive fraud, i.e. the identification of a fraudulent customer may be communicated in different ways, either as reactions to a client query to the service provider or as an automatically timed or positive fraud indication induced reminder sent from the fraud indication system 100 to the client.

Preferable examples hereof are the client part of the system queries the provider part of the system before or during the customers credit card is being authorized, i.e. before the transaction is being settled, or the provider part of the system reminds the client part of the system after the transaction is settled. In the first two cases, the customer may after being identified by the system as a potentially fraudulent individual, be rejected by the website in order to hinder a charge-back. In the latter case, the merchant must perform a refund of the customer in order to prevent a charge-back. In all cases, the fraud risk potential determination may after such specific point in time, based on subsequent tracked events, alter accordingly.

Thus, the client is equipped with information to hinder, or ultimately invalidate a transaction, sometimes even before it has been initiated, or at least during or after the transaction has been sent to a transaction authorisation, or alternatively after the transaction has been authorized, but before the product/service has been shipped. The system and method of the present invention, and the computer program on a storage medium for providing the code, which when run is employing it thereto, is unique in that it is able to provide the fraud indication information at every stage in the sales process. As far as is known to the applicant, no other web based system or method uses customer behaviour analysis applicable to all stages of the sales process, e.g. in particular before a transaction is initiated or after the sale has been consummated.

The system 100 may be implemented in different ways. In a first option, as described above in relation to fig. 3, part of the system 100 resides within a fraud indication system provider's 1100 computer, e.g. being a web server, continually collecting data from one or more websites 450 of one or more merchants concerning the behaviour of one or more customers etc., and part of the system resides within the web server of each individual merchant 300, e.g. providing data concerning customer e-mails received, confirmation e-mails sent, and e-mail receipts resulting from these sent e-mails by said merchant web server.

The second option is that the system may be provided as computer implemented code implemented in communication with or directly on the web server of the client 300, i.e. operable entirely within the client's or merchant's web server. In this case updated data such as a new or updated rule set, input of future system or calendar events and the like, may be provided by the client 300 himself and/or the fraud system provider 1100. This option is advantageous, where the system is operable entirely within e.g. the client's or merchant's web server, or the fraud indication system provider's web server, in the latter case only if it is the same web server as the client's or merchant website is provided within.

The third option is to provide the system substantially entirely within the fraud indication system provider 1100's server, i.e. externally from the clients web server. The system may for example be residing as an executable program on a web server, where also the fraud risk potential 180 is determined and displayed, and where only positive fraud is communicated to the client, optionally together with information identifying either the customer or the transaction which was deemed fraudulent. However, this may reduce the number of customer induced events, which are trackable by the system.

In a preferred embodiment of the system and method, the fraud indication system is an add-on application to a conventional payment site, e.g. as is provided for and/or by a payment provider such as the Danish company DIBS by their Internet based payment solutions. Accordingly, the client is the payment provider, and the fraud indication is displayed to this client and reacted to by him on behalf of one or more merchants on whose behalf he is providing the transaction authorisation, e.g. by installing the tracking part of the system upon all the merchant's websites being serviced. The fraud indication according to the present invention may then advantageously be done independently from and in relation to with the transaction authorisation for each individual transaction.

Further, a system and method is provided with the ability to handle information from more than one website at a time, either from the same client or merchant or from different clients or merchants.

In fig. 4, the system and method according to the invention is illustrated by the use of a time line, e.g. for use with an event sequence analysis, which by using crossing lines is indicating customer behaviour induced events E1, E2, E3, E4, E5, E6, E7, E8, E9, E10 originating from one customer in relation to a clients website 450, which provides direct sale and which is being tracked by said system and method.

Briefly described, the time line indicates the tracking of a number of said events over time before, during, and after e.g. a transaction T in relation to a payment performed by said customer on the website on the Internet. These discrete events are transmitted to said fraud system provider 1100's server by surveying the merchant 300's website 450 as described above. When desired by the client of the fraud system provider 1100, the system determines and displays a fraud risk potential, $FRP(t_0)$ - $FRP(t_{10})$, i.e. an indication of the probability of fraud, based on these events and optionally also on data relating to the payment and the like, as described above.

At a point in time t_0, a potential customer 200, by clicking to agree to the terms and conditions of a commercial merchant website being surveyed by the present fraud determination and indication system, is entering into an active tracking mode of the inventive system 100 in use for said website 450, e.g. a website selling telephone cards and services. This starts the predetermined tracking time interval. In the terms and conditions it may be pointed out, that such tracking and fraud indication system is being accepted to by accepting the terms for entering the website. When the customer is agreeing to the terms and conditions, this is event E_0. The time and events taking place is continually being logged by the fraud indication system according to the invention, in order to based on the given rule set to determine a time variable fraud risk potential FRP. As shown in fig. 4, the time variable fraud risk

potential FRP(t_0) is set to a default low level indication, as indicated with a line, because the customer entering the website is new, i.e. is not previously known to the system. The identification of the customer 200 as performed by the system may be applied in different ways known to the skilled person, e.g. the customer being provided with an ID-cookie, or registration of his computer's IP-address. This may also be agreed upon by customer acceptance of e.g. a terms agreement before entering the merchant's website.

Alternatively, different predetermined time intervals may be chosen, which are suitable for the application for which the fraud system is used. One example is a continuous or intermittent surveying of customers entering and exiting the website, another is a continuous surveying of a potentially fraudulent customer, e.g. over a collection of different websites being serviced by the same or different fraud system providers 1100. Other time intervals may be decided upon according to client specification and fraud system performance and availabilities.

At a point in time t_1, see fig. 4, the customer initiates a purchase in event E_1 by clicking on a displayed item for sale, e.g. one hundred more SMS-messages to be downloaded at his mobile telephone number. The click at t_1 and the item chosen is recorded by the system when tracking customer behaviour. The determined level of the time variable fraud risk potential FRP(t_1) may be depending upon the time period t_0 - t_1, and the type and number of item chosen, and also on the rule set being applied at that moment in time, and for that specific website.

Afterwards, during a period t_2 - t_4 in event E_2 , see fig. 4, the customer is entering in his or her transaction details for payment for downloading the selected one hundred SMS-messages. During this period, at the point in time t_3, in event E_3 the customer enters in a credit card number for payment of the one hundred SMS-messages, which is recorded by the system as data concerning the payment. At $t = t_4$ and event E_4, the customer enters in an e-mail address for contact and a validation of the transaction

for concluding the payment is performed. At $t = t_5$ and event E_5, the customer leaves the website in question.

Shortly afterwards, at $t = t_6$ and event E_6, the same customer re-enters the same website, at $t = t_7$ and in event E_7 he again clicks to purchase one hundred SMS-messages. The customer is identified by the system as the same person, who entered a short while ago, e.g. by being assigned a customer ID or by his IP-address, as explained above. At $t = t_8$ and event E_8, he enters a different credit card number from the one used at event E_3, and at $t = t_9$ and event E_9, the fraud indication system indicates to the client, i.e. the telephone card provider, that the customer is highly likely to be fraudulent, e.g. by sending an indication to the client webserver. This automatically halts the sale and informs the customer of the action being taken, for example also politely and informatively indicating the reason therefore. This indication may alternatively be transmitted by the merchant's sale department following the halt of the sales process, or before shipping the item to the customer, i.e. before downloading to the customer's mobile phone the possibility of sending one hundred extra SMS-messages, as described above.

At $t = t_{10}$ and event E_{10}, the customer sends an e-mail to the website contact address and explains, that the credit card number used for the last transaction was typed in with an error in it, and the website fraud indication system is able, based on website merchant feedback, to reduce the transaction first fraud risk potential $FRP(t_{10})$ to a low level, and thus restart or resume the sale by allowing the customer back upon the website.

As was indicated above, more than one website may be tracked using the method and system according to the present invention. This is in particular advantageous in the case where the client is a payment service provider or for the fraud system provider, which may then e.g. be able to correlate information between the websites and thus provide a more reliable fraud risk indication.

More than one fraud risk potential, $FRP_1(t_9)$, $FRP_2(t_9)$, 180A and 180B respectively in Fig. 4 may be determined, and indicated to one or more clients of the fraud tracking system at the same or different moments in time.

This may be a first potential $FRP_1(t_9)$ 180A for indicating fraud risk in relation to and corresponding to the financial transaction in question, e.g. after event E6. Accordingly, a high risk of customer fraud may be indicated based on among others the event of the same customer using different card numbers to purchase items. Further, a second potential $FRP_2(t_9)$ 180B may be determined for indicating fraud risk in relation to the customer in question, e.g. there may be a high risk that the customer is sending spam SMS-messages. This may be indicated, based on among others the fact that e.g. he was attempting to purchase one hundred SMS-messages for the same phone number within the relatively short time period t_0 - t_9.

The step of determining said behaviour profile comprises analyzing data concerning the behaviour of said customer in relation to said website, and data concerning environmental events, comprising system and/or calendar induced events such as festive seasons and national holidays. Said data furthermore comprises data concerning the payment, comprising transaction data and/or data concerning said customer.

The information made available by tracking a number of events can be analysed using behaviour classification algorithms that may comprise one or more predetermined rule sets and/or predetermined predictive models and/or at least one cross reference onto said information. The step of determining the behaviour profile also comprises combining information regarding the present interaction with said at least one website with previously recorded behaviour profiles of said customer or with previously recorded behaviour profiles of an ensemble of customers that previously have visited said at least one website or other websites monitored by said

real-time behaviour classification algorithm based method. S least part of the system events, calendar events, data concerning the payment, the predetermined rule set, and/or cross-references are provided by the client.

Determining the fraud risk potential may also involve comparing a set of recently tracked events with an event pattern history, i.e. a predetermined selection of previously tracked event sets and their corresponding resulting fraud risk potential, respectively, and if there are one or more positive matches, reducing or increasing the fraud risk potential by for instance multiplying with each corresponding resulting fraud risk potential or by using any other relevant mathematical algorithm. Accordingly, an event history inventory may be provided, e.g. by storing the more significant event histories, either for indicating positive fraud or the opposite, manually or automatically, which improves and supplements said determination.

The disclosed system furthermore comprises steps for displaying on an interface said at least one behaviour profile, for example to said client, where said interface can be an XML interface and/or a web interface. The displayed behaviour profile comprises means for indicating both positive fraud, i.e. the identification of a fraudulent entity, and/or negative fraud, i.e. the identification of a trustworthy entity, if said at least one fraud risk potential passes predetermined thresholds. The scale for the fraud risk potential may be divided into 3 intervals between predetermined levels, whereby the two extremes on the scale can be used to indicate either a predominantly suspicious behaviour or a predominantly trustworthy behaviour, and the middle interval can be used to indicate that a manual decision preferably should be made. An indication of positive fraud, i.e. the identification of a fraudulent customer, may also be shown if said at least one behaviour profile shows that more than a predetermined a number and/or a predetermined ratio of said customer induced events appears to be suspicious and/or if said at least one behaviour profile shows that one or more predetermined suspicious customer induced events have occurred. Likewise, an indication of negative fraud, i.e. the identification of a trustworthy customer, may be

displayed if said at least one behaviour profile shows that more than a predetermined a number and/or a predetermined ratio of said entity induced events appears to be reliable and/or if said at least one behaviour profile shows that one or more predetermined trustworthy customer induced events have occurred.

The disclosed method furthermore comprises the possibility of automatically rejecting, automatically granting, manually rejecting and manually rejecting said customer the right to purchase said client's service and/or product based on said indications of fraudulent or trustworthy behaviour. An automatically made decision can be changed manually by the client or the service provider.

The disclosed method and system, and computer programme for performing said method, is a stand-alone method that can be integrated in existing electronic purchase order methods provided on said merchants existing said at least one website

The application of the invention is in particular the partaking of a network based commercial sale, in particular payment for client products or services, e.g. in a direct sale, and/or payment of bills via the Internet, e.g. via a payment solution provider. However, it is well within the scope of the present invention to utilize the inventive system and method for other network based applications, such as traditional catalogue/telephone ordering, telephone usage environments, telephone sales and marketing, and even traditional sales between physical entities, in which interactive communication means such as a website is available. The means for accessing such website is not substantial to the invention, and may comprise a personal computer, a touch-screen application, a mobile phone, a PDA, etc.

It is to be understood, that the present invention may be implemented utilizing any number of computer technologies. For example, although the present embodiments are disclosed as operable in connection with the Internet, the present invention may be utilized over any computer network, including for example a wide area network or

a local area network. Similarly, the customer computer and/or client or merchant computer may be any computer device which can be coupled to the network, including for example PDA's, web-enabled cellular telephones, hard-wired telephones which dial into the network, mobile and stationary computers, Internet appliances, and the like. Furthermore, the merchant servers providing the websites to be fraud tracked may be of any type, running any software, and the software modules, objects and plug-ins described herein may be written in any programming language, including HTML language. Lastly, the database and storage devices described herein may utilize any storage technology, including for example local computer memory, network attached storage, both fixed and removable, in any known storage medium, such as magnetic or optical.

PATENT CLAIMS

1. A computer-implemented method using real-time behaviour classification algorithms in order to identify potentially fraudulent entities in relation to activities in at least one electronic entity action based system, such as a website for ecommerce activities, a system for mobile telecommunication, a system for credit card payment, and the like, by monitoring the behaviour of said entity within at least one of said action based systems, said method comprising the following steps:

- providing input information over time by substantially continuously monitoring at least one of said action based systems concerning the behaviour of said entity in relation to said at least one action based system by tracking a plurality of entity induced events; and

- sequentially analyzing said input information, at least after each said entity induced event for providing at least one behaviour profile, wherein the significance and meaning of said entity induced events substantially dynamical and may change in time; and

- displaying said behaviour profile.

2. A method according to claim 1, wherein said action based system comprises at least one website comprising means for commerce activities, in particular involving payment by transferral of a payment from one bank account to another and/or by credit card payment and/or the like.

3. The method according to claim 2, wherein said at least one behaviour profile, is determined substantially continuously, i.e. at least after each entity induced event in relation to said at least one website, by monitoring the behaviour of said entity on said at least one website and analyzing said behaviour by applying said real-time behaviour classification algorithms to a plurality of said entity induced events, thereby providing at least one substantially time variable continuous behaviour profile.

4. The method according to claim 2 or 3, wherein said entity induced events comprises the entering of entity provided information comprising the information itself and/or how this information is provided by said entity.

5. The method according to any of claims 2 to 4, wherein said at least one behaviour profile is determined substantially continuously by tracking said entity's use of the mouse pointer and the corresponding movement of the curser on the display used for viewing said at least one website.

6. The method according to any of claims 2 to 5, wherein said at least one behaviour profile is determined substantially continuously by detecting said entity's typing speed and/or number of corrections made while entering text on said website.

7. The method according to any of claims 2 to 6, wherein said at least one behaviour profile is determined substantially continuously by detecting whether said entity scrolls to the bottom of said website, and/or reads the receipt of the purchase order and/or prints the receipt of the purchase order, and/or resizes the browser window used for displaying said at least one website or not.

8. The method according to any of claims 2 to 7, wherein said at least one behaviour profile is determined by monitoring the behaviour of said entity prior to the transaction to process the electronic purchase order and/or during the transaction to process the electronic purchase order and/or after the transaction to process the electronic purchase order.

9. The method according to claims 2 to 8, wherein the step of determining comprises registering from which website said entity entered said client's said at least one website and/or acquiring information from for example a "sniffer" placed in front of the web server of the e-commerce site and/or gathering information from online log files from the web server hosting the ecommerce website, said log files comprising

all movements on said website and/or collecting event information directly on the entity's own PC through for example via a plug-in on the clients web browser.

10. The method according to any of claims 2 to 9, wherein said at least one behaviour profile is determined substantially continuously by monitoring the behaviour of said entity during the entire period the entity is connected to said at least one website allowing for a determination of said at least one behaviour profile even if said entity exits said at least one website without initiating a transaction to process an electronic purchase order.

11. The method according to any of claims 2 to 10, wherein said at least one behaviour profile is determined prior to initiating the transaction to process an electronic purchase order, whereby steps for preventing said entity from entering specific parts of said website or specific websites can be taken.

12. The method according to any of claims 2 to 11, wherein said at least one behaviour profile is determined by tracking at least one entity induced event in relation to said at least one website after the transaction is final and the purchased item is made available to said entity, thereby providing a method for indicating to said client if a transaction that initially appeared trustworthy in fact is fraudulent or may be fraudulent, so that for instance the actual capture for the funds that were previously authorized can be rejected in order to avoid chargebacks or the shipping of the purchased items can be stopped.

13. The method according to any of claims 2 to 12, wherein a plurality of entity induced events occurs independently of the connection to said website, such as phone calls between said entity and said client's customer support.

14. The method according to any of claims 2 to 13, wherein said at least one behaviour profile is determined at least right before a transaction for a payment is authorized.

15. The method according to any of claims 2 to 14, wherein said at least one behaviour profile, can be determined intermittently upon request from said client or a service provider

16. The method according to any of claims 2 to 15, wherein said information further comprises environment induced events, comprising system and/or calendar induced events such as festive seasons and national holidays.

17. The method according to any of claims 2 to 16, wherein said information further comprises data concerning the payment, comprising transaction data and/or data concerning said entity.

18. The method according to any of claims 2 to 17, wherein the step of determining comprises applying onto said information a timeline sequence analysis, that analyse the behaviour of said entity by monitoring which at least one websites said entity visits and the entity's actions on said at least one website.

19. The method according to any of claims 2 to 18, wherein the step of determining comprises applying behaviour classification algorithms that may comprise one or more predetermined rule sets, onto said information.

20. The method according to any of claims 2 to 19, wherein the step of determining comprises applying behaviour classification algorithms that may comprise one or more predetermined predictive models onto said information.

21. The method according to any of claims 2 to 20 wherein the step of determining comprises applying behaviour classification algorithms that may comprise one or more cross references onto said information

22. The method according to any of claims 2 to 21, wherein said at least one behaviour profile is determined by combining information regarding the present interaction with said at least one website with previously recorded behaviour profiles of said entity.

23. The method according to any of claims 2 to 22, wherein said at least one behaviour profile is determined by combining information regarding the present interaction with said at least one website with previously recorded behaviour profiles of an ensemble of entitys that previously have visited said at least one website or other websites monitored by said real-time behaviour classification algorithm based method.

24. The method according to any of claims 2 to 23, wherein the step of determining said at least one fraud risk potential comprises comparing a set of recently tracked entity induced events with an event pattern history, i.e. a predetermined selection of previously tracked event sets and their corresponding resulting fraud risk potential, respectively, and if there are one or more positive matches, reducing or increasing the fraud risk potential by for instance multiplying with each corresponding resulting fraud risk potential or by using any other relevant mathematical algorithm.

25. The method according to any of claims 2 to 24, further comprising the step of displaying on an interface said at least one behaviour profile , for example to said client.

26. The method according to any of claims 2 to 25, further comprising the step of displaying said at least one behaviour profile , for example to said client via an XML interface and/or via a web interface.

27. The method according to any of claims 2 to 26, wherein the step of providing information comprises tracking said at least one entity induced event within a predetermined time interval.

28. The method according to claim 27, wherein said predetermined time interval lies between a first moment (t_0), when said entity is entering said at least one website and a second moment (t_{10}), when a transaction (T) has been authorized.

29. The method according to claim 27, wherein said predetermined time interval lies between a first moment (t_0) when said entity is entering said at least one website, and a second moment (t_5) when said entity is leaving said at least one website again.

30. The method according to any of the claims 2 to 29, wherein said client is a merchant, which provides said at least one website for offering at least one service and/or at least one product in a direct sale.

31. The method according to any of the claims 2 to 30, wherein said client is a provider of a payment solution for said at least one website.

32. The method according to any of the claims 2 to 31, further comprising the step of providing at least an indication of positive fraud, i.e. the identification of a fraudulent entity, if said at least one fraud risk potential passes a predetermined threshold.

33. The method according to any of the claims 2 to 32, further comprising the step of providing at least an indication of negative fraud, i.e. the identification of a

trustworthy entity, if said at least one fraud risk potential passes a predetermined threshold.

34. The method according to claim 33, wherein said at least one fraud risk potential is providing a binary indication, either positive or negative fraud, such as 1 or 0.

35. The method according to claim 33, wherein said at least one fraud risk potential is divided into levels between predetermined values, such as between 0 and 9.

36. The method according to any of claims 2 to 33, wherein said at least one fraud risk potential is divided into at least 3 intervals between predetermined levels, whereby the two extremes on the scale can be used to indicate either a predominantly suspicious behaviour or a predominantly trustworthy behaviour, and the middle interval can be used to indicate that a manual decision preferably should be made.

37. The method according to any of the claims 2 to 36, further comprising the step of providing at least an indication of positive fraud, i.e. the identification of a fraudulent entity, if said at least one behaviour profile shows that more than a predetermined a number and/or a predetermined ratio of said entity induced events appears to be suspicious.

38. The method according to any of the claims 2 to 37, further comprising the step of providing at least an indication of positive fraud, i.e. the identification of a fraudulent entity, if said at least one behaviour profile shows that one or more predetermined suspicious entity induced events have occurred.

39. The method according to any of the claims 2 to 38, further comprising the step of providing at least an indication of negative fraud, i.e. the identification of a trustworthy entity, if said at least one behaviour profile shows that more than a

predetermined a number and/or a predetermined ratio of said entity induced events appears to be reliable.

40. The method according to any of the claims 2 to 39, further comprising the step of providing at least an indication of negative fraud, i.e. the identification of a trustworthy entity, if said at least one behaviour profile shows that one or more predetermined trustworthy entity induced events have occurred.

41. The method according to any of claims 2 to 40, further comprising the step of automatically rejecting or automatically granting said entity the right to purchase said client's service and/or product based on said indications of fraudulent or trustworthy behaviour.

42. The method according to any of claims 2 to 41, further comprising the step of manually deciding to reject or grant said entity the right to purchase said client's service and/or product based on said indications of fraudulent or trustworthy behaviour displayed in said interface.

43. The method according to any of claims 2 to 42, further comprising the step of manually being able to change the automatically made decision to either reject or grant said entity the right to purchase said client's service and/or product based on said indications of fraudulent or trustworthy behaviour.

44. The method according to any of claims 2 to 43, wherein at least part of the system events, calendar events, data concerning the payment, the predetermined rule set, and/or cross-references are provided by the client.

45. The method according to any of claims 2 to 44, wherein said at least one website is provided on the Internet.

46. The method according to any of claims 2 to 45, wherein a first fraud risk potential ($FRP_1(t_9)$) is determined in order to indicate fraud in relation to a specific transaction using transaction identification.

47. The method according to any of claims 2 to 46, wherein a second fraud risk potential ($FRP_2(t_9)$) is determined in order to indicate fraud in relation to a specific entity using entity identification.

48. The method according to any of claims 2 to 47, wherein said method is a stand-alone method that can be integrated in existing electronic purchase order methods provided on said merchants existing said at least one website

49. A computer-implemented system to identify potentially fraudulent entities in relation to activities in at least one electronic entity action based system by monitoring the behaviour of said entity within at least one of said action based systems, said system comprising the following means:
- survey means for substantially continuously monitoring a plurality of entity induced events in relation to at least one of said action based systems; and
- process means for sequentially analyzing based on said information, at least after each said entity induced event, for providing at least one behaviour profile, in order to identify potentially fraudulent entities; and
- display means for displaying said behaviour profile.

50. The system according to claim 49, wherein said survey means comprises real-time behaviour classification algorithms for analyzing said plurality of entity induced events, wherein the significance and meaning of these entity induced events are substantially dynamical and may change in time.

51. The system according to claim 49 or claim 50, wherein said survey means comprises means for monitoring the behaviour of a given entity in relation to a

client's at least one website and said process means comprises means for analyzing this behaviour of a said entity in relation to client's said at least one website, said website comprising means for commerce activities, in particular involving means for payment by transferral of a payment from one bank account to another and/or by credit card payment and/or the like.

52. The system according to claim 51, wherein said survey means and said process means comprises means for monitoring and analyzing the entity provided information comprising the information itself and/or how this information is provided by said entity.

53. The system according to claim 51 or claim 52, wherein said survey means and said process means comprises means for monitoring and analyzing said entity's use of the mouse pointer and the corresponding movement of the curser on the display used for viewing said at least one website.

54. The system according to any of claims 51 to 53, wherein said survey means and said process means comprises means for detecting and analyzing said entity's typing speed and/or number of corrections made while the entering text on said website.

55. The system according to any of claims 51 to 54, wherein said survey means and said process means comprises means for detecting whether said entity scrolls to the bottom of said website, and/or reads the receipt of the purchase order and/or prints the receipt of the purchase order, and/or resizes the browser window used for displaying said at least one website or not.

56. The system according to any of claims 51 to 55, wherein said survey means comprises means for detecting from which website said entity entered said client's said at least one website and/or means for acquiring information from for example a "sniffer" placed in front of the web server of the e-commerce site and/or means for

gathering information from online log files from the web server hosting the ecommerce website, said log files comprising all movements on said website and/or means for collecting event information directly on the entity's own PC through for example via a plug-in on the clients web browser.

57. The system according to any of claims 51 to 56, further comprising means for preventing said entity from entering specific parts of said website or specific websites.

58. The system according to any of claims 51 to 57, further comprising means for tracking at least one entity induced event in relation to said at least one website after the transaction is final and the purchased item is made available to said entity, thereby providing means for indicating to said client if a transaction that initially appeared trustworthy in fact is fraudulent or may be fraudulent, so that for instance the actual capture for the funds that were previously authorized can be rejected in order to avoid chargebacks or the shipping of the purchased items can be stopped.

59. The system according to any of claims 51 to 58, wherein said survey means and said process means comprises means for monitoring and analyzing any entity behaviour that is not directly related to said at least one website, such as phone calls between said entity and said client's customer support.

60. The system according to any of claims 51 to 59, further comprising means for determining said at least one behaviour profile intermittently upon request from said client or a service provider

61. The system according to any of claims 51 to 60, where said information further comprises environment induced events, comprising system and/or calendar induced events such as festive seasons and national holidays and/or .

62. The system according to any of claims 51 to 61, where said information further comprises data concerning the payment, comprising transaction data and/or entity data.

63. The system according to any of claims 51 to 62, further comprising means for displaying said at least one behaviour profile, for example to said client

64. The system according to claim 63, wherein means for displaying said at least one behaviour profile, comprises a XML interface and/or a web interface.

65. The system according to any of claims 51 to 64, where said at least one client website is a merchant's website for offering a customer services and/or products in a direct sale.

66. The system according to any of claims 51 to 65, where said at least one client website is a payment solution provider's website for providing a payment solution for merchant's website or websites.

67. The system according to any of claims 51 to 66, further comprising means for providing at least an indication of positive fraud, i.e. the identification of a fraudulent entity, for example to a client, if said at least one fraud risk potential passes a predetermined threshold.

68. The system according to any of the claims 51 to 67, further comprising means for providing at least an indication of negative fraud, i.e. the identification of a trustworthy entity, if said at least one fraud risk potential passes a predetermined threshold.

69. The system according to any of claims 51 to 68, where said at least one fraud risk potential is providing a binary indication, either positive or negative fraud, such as 1 or 0.

70. The system according to any of claims 51 to 69, wherein said at least one fraud risk potential are divided into levels between predetermined values, such as between 0 and 9.

71. The system according to any of claims 51 to 70, comprising means for dividing said at least one fraud risk potential into at least 3 intervals between predetermined levels, whereby the two extremes on the scale can indicate either a predominantly suspicious behaviour or predominantly trustworthy behaviour, and the middle interval can be used to indicate that a manual decision preferably should be made.

72. The system according to any of claims 51 to 71, further comprising means for providing at least an indication of positive fraud, i.e. the identification of a fraudulent entity, if said at least one behaviour profile shows that more than a predetermined a number and/or a predetermined ratio of said entity induced events appears to be suspicious.

73. The system according to any of claims 51 to 72, further comprising means for providing at least an indication of positive fraud, i.e. the identification of a fraudulent entity, if said at least one behaviour profile shows that one or more predetermined suspicious entity induced events have occurred.

74. The system according to any of claims 51 to 73, further comprising means for providing at least an indication of negative fraud, i.e. the identification of a trustworthy entity, if said at least one behaviour profile shows that more than a predetermined a number and/or a predetermined ratio of said entity induced events appears to be reliable.

75. The system according to any of claims 51 to 74, further comprising means for providing at least an indication of negative fraud, i.e. the identification of a trustworthy entity, if said at least one behaviour profile shows that one or more predetermined trustworthy entity induced events have occurred.

76. The system according to any of claims 51 to 75, further comprising means for automatically rejecting or denying said entity the right to purchase said client's service and/or product based on said indications of fraudulent or trustworthy behaviour.

77. The system according to any of claims 51 to 76, further comprising means for manually deciding to reject or deny said entity the right to purchase said client's service and/or product based on said indications of fraudulent or trustworthy behaviour displayed in said interface.

78. The system according to any of claims 51 to 77, further comprising means for manually changing the automatically made decision to either reject or deny said entity the right to purchase said client's service and/or product based on said indications of fraudulent or trustworthy behaviour.

79. The system according to any of claims 51 to 78, wherein at least part of the system events, calendar events, data concerning the payment, the predetermined rule set, and/or cross-references are provided by the client.

80. The system according to any of claims 51 to 79, wherein said at least one website is provided on the Internet.

81. The system according to any of claims 51 to 80, wherein said method is a stand-alone system that can be integrated in existing electronic purchase order systems provided on said merchants existing said at least one website.

82. A computer program being stored on a computer readable medium, which program is operable for performing a method according to any of the claims 1 to 48 said computer program comprising:

- code for providing input information substantially continuously concerning a given entity's behaviour over time in relation to said at least one website; and
- code for sequentially analyzing said input information, at least after each said entity induced event for providing at least one behaviour profile, wherein the significance and meaning of these entity induced events are substantially dynamical and may change in time.
- code for displaying said behaviour profile.

83. A method according to claim 1, further comprising one or more of the features of claims 4, 13, 15, 16, 19 to 27, and 32 to 44, wherein said electronic entity action based system comprises at least one service for mobile telecommunication using at least one mobile telecommunication device.

84. The method according to claim 83, wherein said at least one behaviour profile is determined substantially continuously, i.e. at least after each entity induced event in relation to said at least one mobile telecommunication network, by monitoring the behaviour of said entity on said at least one mobile telecommunication network and analyzing said behaviour by applying said real-time behaviour classification algorithms to a plurality of said entity induced events, thereby providing at least one substantially time variable continuous behaviour profile.

85. The method according to claim 83 or 84, wherein said at least one behaviour profile is determined substantially continuously by monitoring the behaviour of said

entity during the entire period the entity is connected to said at least one mobile telecommunication network allowing for a determination said at least one behaviour profile even if said entity exits said mobile telecommunication network without using any service provided by said client.

86. The method according to any of claims 83 to 85, wherein said information further comprises data concerning entity behaviour that is not directly related to said at least one mobile telecommunication network, such as phone calls and emails between said entity and said client's customer support.

87. The method according to any of claims 83 to 86, wherein said method is a stand-alone method that can be integrated in existing mobile telecommunication operating methods.

88. The method according to any of claims 83 to 87, wherein said entity induced events comprises the time and/or duration and/or cost pr minute of a given call.

89. The method according to any of claims 83 to 88, wherein said entity induced events comprises the number of text based and/or picture based and/or video based messages that are send within a certain period of time.

90. The method according to any of claims 83 to 89, wherein said information comprises the location of the entity and/or the location of the person receiving the call.

91. The method according to any of claims 83 to 90, wherein said information comprises the number of calls made over a given period of time and/or a record of commonly used phone numbers.

92. The method according to any of claims 83 to 91, wherein said information comprises the use of at least one additional feature of said at least one mobile telecommunication device.

93. The method according to 92, wherein said at least one additional feature of said at least one mobile telecommunication device comprises a photo camera and/or a video camera and/or a sound based application such as an FM radio and/or a music player such as an mp3 player.

94. The method according to any of claims 83 to 93, wherein location-based tracking provide said information, where said information comprises where said entity works and/or socialises.

95. The method according to any of claims 83 to 94, wherein said information comprises a profile of who the user socialises with, said profile being built using Bluetooth pairing.

96. A system according to claim 49, further comprising one or more of the features of claims 49, 50, 52, 59 to 64, and 67 to 79, wherein said network comprises at least one network for mobile telecommunication using at least one mobile telecommunication device.

97. The system according to claim 96, further comprising means for determining said at least one behaviour profile substantially continuously, i.e. at least after each entity induced event in relation to said at least one mobile telecommunication network.

98. The system according to any of claims 96 or 97, further comprising means for determining said at least one behaviour profile by based on data concerning entity behaviour that is not directly related to said at least one mobile telecommunication network, such as phone calls between said entity and said client's customer support.

99. The system according to any of claims 96 to 98, wherein said process means for determining said at least one behaviour profile comprises real-time behaviour classification algorithms for generating at least one fraud risk potential by analyzing said plurality of entity induced events in relation to said at least one mobile telecommunication network.

100. The system according to any of claims 96 to 99, wherein said system is a stand-alone system that can be integrated in existing mobile telecommunication systems.

101. The system according to any of claims 96 to 100, wherein said survey means comprises means for monitoring the time and/or duration and/or cost pr minute of a given call.

102. The system according to any of claims 96 to 101, wherein said survey means comprises means for recording the number of text based and/or picture based and/or video based messages that are send within a certain period of time.

103. The system according to any of claims 96 to 102, wherein said survey means comprises means for detecting the location of the entity and/or the location of the person receiving the call.

104. The system according to any of claims 96 to 103, wherein said survey means comprises means for detecting the number of calls made over a given period of time and/or a record of commonly used phone numbers.

105. The system according to any of claims 96 to 104, wherein said survey means comprises means for detecting the use of at least one additional feature of said at least one mobile telecommunication device.

106. The system according to 105, wherein said at least one additional feature of said at least one mobile telecommunication device comprises a photo camera and/or a video camera and/or a sound based application such as an FM radio and/or a music player such as an mp3 player.

107. The system according to any of claims 96 to 106, wherein said survey means comprises means for location-based tracking of the entity.

108. The system according to any of claims 96 to 107, wherein said survey means comprises means for Bluetooth pairing for determining a profile of who the user socialises with.

109. A computer program being stored on a computer readable medium, which program is operable for performing a method according to any of the claims 83 to 95 said computer program comprising:
- code for providing input information substantially continuously concerning a given entity's behaviour over time in relation to said at least one mobile telecommunication network; and
- code for sequentially analyzing said input information, at least after each said entity induced event at least one behaviour profile, wherein the significance and meaning of these entity induced events are substantially dynamical and may change in time.
- code for displaying said behaviour profile.

110. A method according to claim 1, further comprising one or more of the features of claims 4, 13, 15, 16, 19 to 27, and 32 to 44, wherein said electronic entity action based system comprises at least one service for credit card payment.

111. The method according to claim 110, wherein said at least one behaviour profile is determined substantially continuously, i.e. at least after each entity induced event in relation to said at least one credit card payment network, by monitoring the

behaviour of said entity on said at least one credit card payment network and analyzing said behaviour by applying said real-time behaviour classification algorithms to a plurality of said entity induced events, thereby providing at least one substantially time variable continuous behaviour profile.

112. The method according to any of claims 110 or 111, wherein said information further comprises data concerning entity behaviour that is not directly related to said at least one credit card payment network, such as phone calls between said entity and said client's customer support.

113. The method according to any of claims 110 to 112, wherein said method is a stand-alone method that can be integrated in existing credit card payment methods.

114. The method according to any of claims 110 to 113, wherein at least one behaviour profile comprising at least one fraud risk potential is generated by using said real-time behaviour classification algorithms to analyze how said entity interacts with said at least one credit card payment network during said plurality of entity induced events.

115. The method according to any of claims 110 to 114, wherein said information comprises the number of purchases made per day and/or the character of the purchased goods and/or time of purchase and/or location of purchase.

116. The method according to any of claims 110 to 115, wherein said information comprises is cross- referenced with data concerning said entity, said data comprising the entity's profession and/or age and/or country of residence and/or travel frequency and/or hobbies and/or interest.

117. A system according to claim 49, further comprising one or more of the features of claims 50, 52, 59, 60, 62, 63, 64, 66 to 77, wherein said electronic entity action based system comprises at least one network for credit card payment.

118. The system according to claim 117, further comprising means for determining said at least one behaviour profile substantially continuously, i.e. at least after each entity induced event in relation to said at least one credit card payment network.

119. The system according to any of claims 117 or 118, further comprising means for determining said at least one behaviour profile by based on data concerning entity behaviour that is not directly related to said at least one credit card payment network, such as phone calls between said entity and said client's customer support.

120. The system according to any of claims 117 to 119, wherein said process means for determining said at least one behaviour profile comprises real-time behaviour classification algorithms for generating at least one fraud risk potential by analyzing said plurality of entity induced events in relation to said at least one credit card payment network.

121. The system according to any of claims 117 to 120, wherein said system is a stand-alone system that can be integrated in existing credit card payment systems.

122. The system according to any of claims 117 to 121, wherein said survey means comprises means for monitoring the behaviour of said entity by detecting the number of purchases made per day and/or the character of the purchased goods and/or time of purchase and/or location of purchase.

123. The system according to any of claims 110 to 115, wherein said process means comprises means for cross-referencing with data concerning said entity, said data comprising the entity's profession and/or age and/or country of residence and/or travel frequency and/or hobbies and/or interest.

124. A computer program being stored on a computer readable medium, which program is operable for performing a method according to any of the claims 110 to 116 said computer program comprising:

- code for providing input information substantially continuously concerning a given entity's behaviour over time in relation to said at least one credit card payment network; and

- code for sequentially analyzing said input information, at least after each said entity induced event at least one behaviour profile, wherein the significance and meaning of these entity induced events are substantially dynamical and may change in time.

- code for displaying said behaviour profile.

125. A method according to claim 1, further comprising one or more of the features of claims 2 to 7, 9, 13, 15 to 23, 25, 26, 30, 31 and 44 to 48, wherein said electronic entity action based system comprises a client's at least one website for ecommerce, and said behaviour classification algorithms are used to classify a given entity's interest in specific types of advertisements and/or goods available on this at least one website, to predict whether said entity is inclined to click on specific advertisement links shown on said at least one website or by specific types of goods.

126. The method according to claim 125, wherein said website shows user adapted advertisements chosen from said classification of said entitys interests.

127. The method according to claim 125 or claim 126, wherein said website prioritise the presentation of the available goods based on said classification of said entitys interests.

128. The method according to any of claims 125 to 127, wherein said website is used for non-profit purposes such as collection of financial support to organizations.

129. A system according to claim 49, further comprising one or more of the features of claims 50 to 57, 59 to 66, and 79 to 81, wherein said electronic entity action based system comprises a client's at least one website for ecommerce, and said behaviour classification algorithms are used to classify a given entity's interest in specific types of advertisements and/or goods available on this at least one website, to predict whether said entity is inclined to click on specific advertisement links shown on said at least one website or by specific types of goods.

130. The system according to claim 129, further comprising means for showing said entity user specific advertisements.

131. The system according to claim 129 or claim 130, further comprising means for prioritising the presentation of the available goods sold on said website based on said classification of said entity's interests.

132. The system according to any of claims 129 to 131, wherein said website provide means for non-profit purposes such as collection of financial support to organizations.

133. A computer program being stored on a computer readable medium, which program is operable for performing a method according to any of the claims 125 to 128, said computer program comprising:

- code for providing input information substantially continuously concerning a given entity's behaviour over time in relation to said at least one website; and
- code for sequentially analyzing said input information, at least after each said entity induced event at least one behaviour profile, wherein the significance and meaning of these entity induced events in principle are dynamical and may change in time; and code for displaying said behaviour profile.

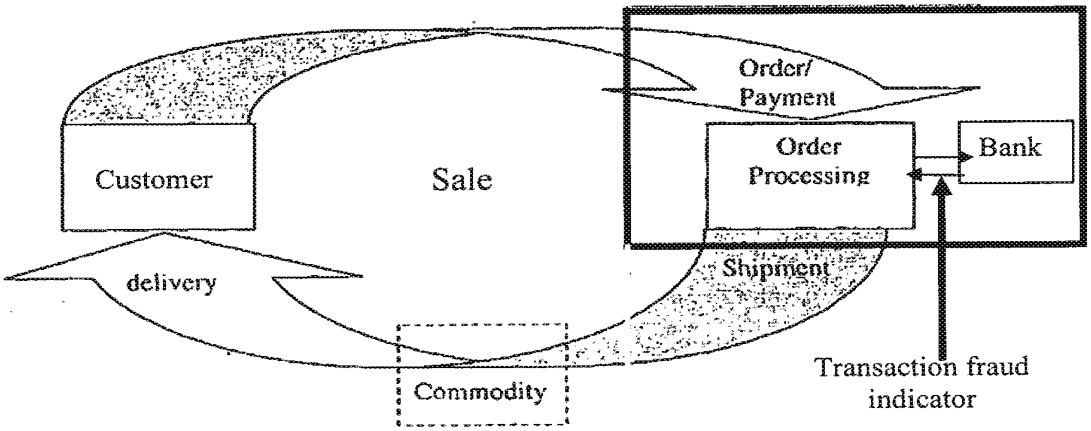


Fig. 1 PRIOR ART

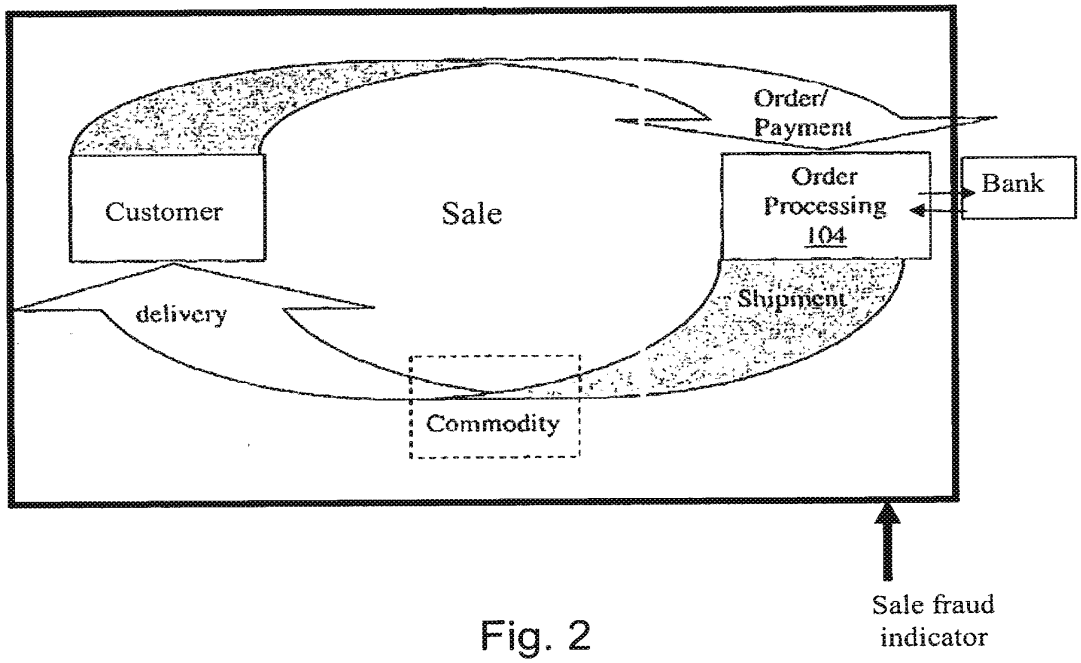


Fig. 2

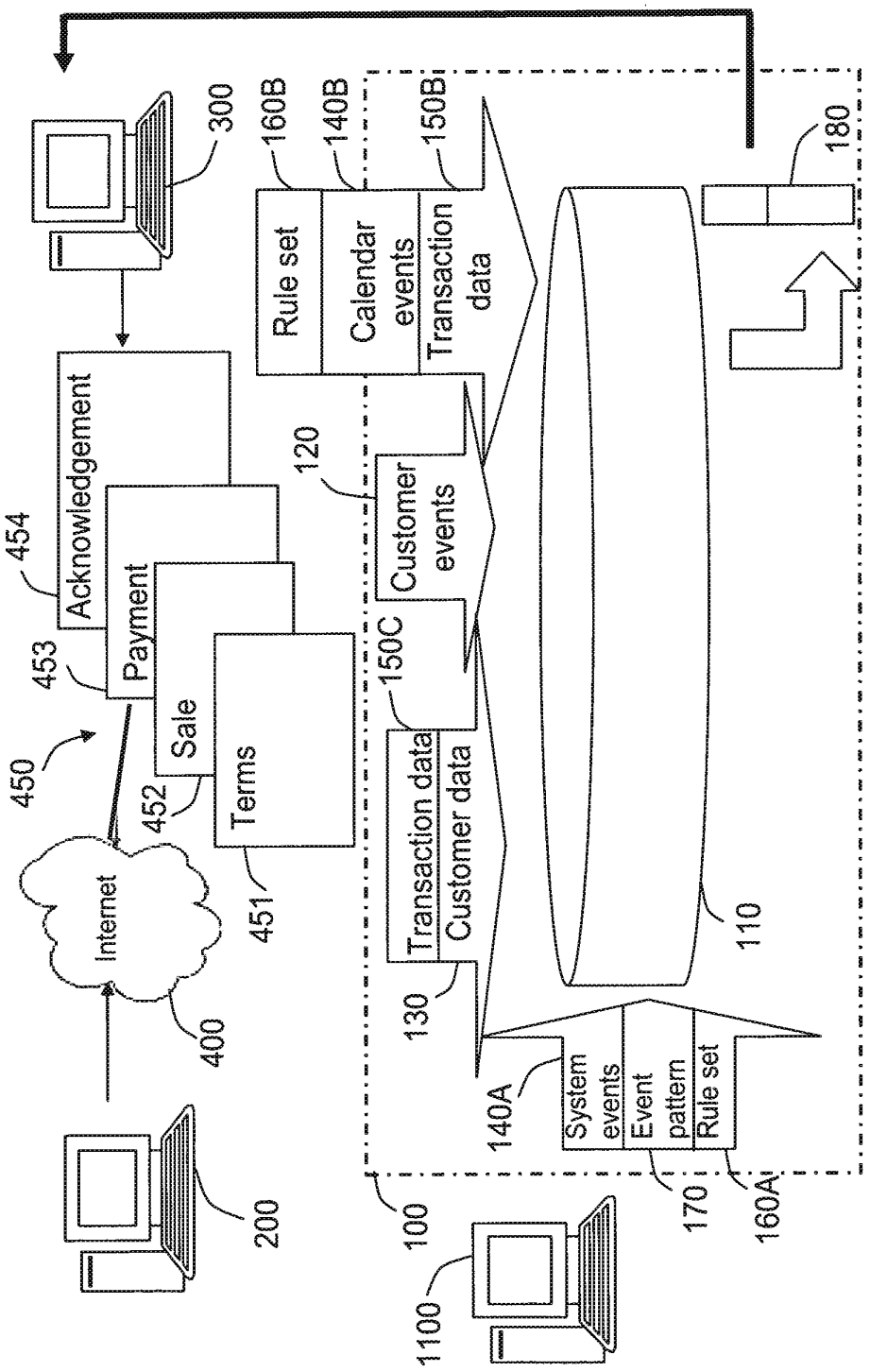

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140B
150B
180
Rule set
Calendar events
Transaction data
120
Customer events
454
Acknowledgement
453
Payment
Sale
Terms
450
452
451
150C
Transaction data
Customer data
Internet
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130
110
140A
System events
Event pattern
Rule set
200
100
170
160A
1100

Fig. 3

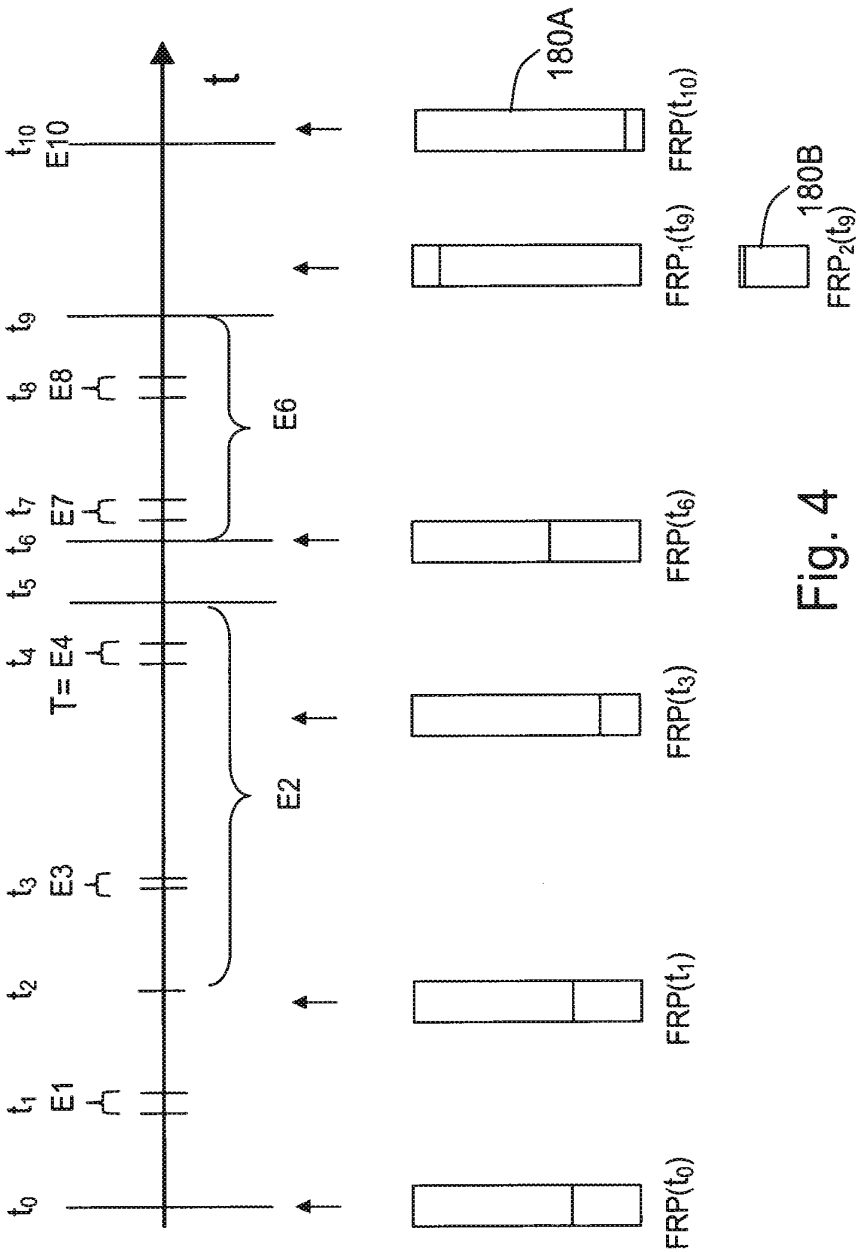

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t_2
t_3
E3
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180B

Fig. 4

INTERNATIONAL SEARCH REPORT

International application No
PCT/EP2007/000995

A. CLASSIFICATION OF SUBJECT MATTER
INV. G06Q30/00

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
G06Q G07F H04L

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)
EPO-Internal, WPI Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 2005/188080 A1 (MOTSINGER DAVID L [US] ET AL) 25 August 2005 (2005-08-25) paragraph [0002] - paragraph [0017] paragraph [0105] - paragraph [0120] paragraph [0182] paragraph [0231] - paragraph [0287]; figures 1a-b,2	1-133

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[X] Further documents are listed in the continuation of Box C.

[X] See patent family annex.

* Special categories of cited documents :

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier document but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

"&" document member of the same patent family

Date of the actual completion of the international search	Date of mailing of the international search report
18 May 2007	11/06/2007

Name and mailing address of the ISA/	Authorized officer
European Patent Office, P.B. 5818 Patentlaan 2 NL – 2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo nl, Fax: (+31-70) 340-3016	Reino, Bernardo

Form PCT/ISA/210 (second sheet) (April 2005)

C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	TENG H S ET AL: "Adaptive real-time anomaly detection using inductively generated sequential patterns" PROCEEDINGS OF THE SYMPOSIUM ON RESEARCH IN SECURITY AND PRIVACY. OAKLAND, MAY 7 - 9, 1990, LOS ALAMITOS, IEEE COMP. SOC. PRESS, US, vol. SYMP. 11, 7 May 1990 (1990-05-07), pages 278-284, XP010020205 ISBN: 0-8186-2060-9 the whole document	1-133
A	WO 2004/003676 A (WATERLEAF LTD [GB]; KING IAN DAVID [ZA]; GOVENDER DEVAN [ZA]) 8 January 2004 (2004-01-08) page 3, line 15 - page 8, line 9 page 9, line 1 - page 12, line 30	1-133
A	US 2005/154676 A1 (RONNING JOEL A ET AL) 14 July 2005 (2005-07-14) paragraph [0006] paragraph [0042] - paragraph [0083]; figures 2,5a,5d,6-8,10,11	1-133
A	US 2002/099649 A1 (LEE WALTER W ET AL) 25 July 2002 (2002-07-25) paragraph [0041] - paragraph [0043]	1-133
A	H. KVARNSTRÖM, E. LUNDIN, E. JONSSON: "Combining fraud and intrusion detection - meeting new requirements -" PROCEEDINGS OF THE FIFTH NORDIC WORKSHOP ON SECURE IT SYSTEMS (NORDSEC2000), [Online] October 2000 (2000-10), XP002379998 Reykjavik, Iceland Retrieved from the Internet: URL:http://www.se.chalmers.se/{emilie/papers/Kvarnstrom_nordsec2000.pdf> [retrieved on 2006-05-08] the whole document	1-133
A	P. I. HOFGESANG AND W, KOWALCZYK: "Analysing Clickstream Data: From Anomaly Detection to Visitor Profiling" ECML/PKDD DISCOVERY CHALLENGE 2005, [Online] October 2005 (2005-10), XP002434153 Retrieved from the Internet: URL:http://www.cs.vu.nl/ci/DataMine/DIANA/papers/hofgesang05pkdd.pdf> [retrieved on 2007-05-14] the whole document	1-133

-/--

C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	I-HSIEN TING ET AL: "UBB Mining: Finding Unexpected Browsing Behaviour in Clickstream Data to Improve a Web Sites Design" WEB INTELLIGENCE, 2005. PROCEEDINGS. THE 2005 IEEE/WIC/ACM INTERNATIONAL CONFERENCE ON COMPIEGNE, FRANCE 19-22 SEPT. 2005, PISCATAWAY, NJ, USA,IEEE, 19 September 2005 (2005-09-19), pages 179-185, XP010841636 ISBN: 0-7695-2415-X the whole document	1-133
A	US 2002/133721 A1 (ADJAOUTE AKLI) 19 September 2002 (2002-09-19) paragraph [0001] - paragraph [0042]	1-133

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No
PCT/EP2007/000995

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 2005188080 A1	25-08-2005	NONE	
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Form PCT/ISA/210 (patent family annex) (April 2005)

Electronic Acknowledgement Receipt	
EFS ID:	47074708
Application Number:	17882082
International Application Number:	
Confirmation Number:	4844
Title of Invention:	Systems, Methods and Apparatus for Evaluating Status of Computing Device User
First Named Inventor/Applicant Name:	Timothy P. Heikell
Customer Number:	29150
Filer:	Robert Goff Hartman/Toni Jorgensen
Filer Authorized By:	Robert Goff Hartman
Attorney Docket Number:	N106-0002USC4
Receipt Date:	22-NOV-2022
Filing Date:	05-AUG-2022
Time Stamp:	17:42:06
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	no

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Foreign Reference	2SI3495.PDF	224905 38432944b85f646569ab263432c52ba12c31caa1	no	3

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New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

Electronic Acknowledgement Receipt

EFS ID:	47077369
Application Number:	17882082
International Application Number:	
Confirmation Number:	4844
Title of Invention:	Systems, Methods and Apparatus for Evaluating Status of Computing Device User
First Named Inventor/Applicant Name:	Timothy P. Heikell
Customer Number:	29150
Filer:	Robert Goff Hartman/Toni Jorgensen
Filer Authorized By:	Robert Goff Hartman
Attorney Docket Number:	N106-0002USC4
Receipt Date:	22-NOV-2022
Filing Date:	05-AUG-2022
Time Stamp:	17:47:58
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	no

File Listing:

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APPLICATION NUMBER	FILING OR 371(C) DATE	FIRST NAMED APPLICANT	ATTY. DOCKET NO./TITLE
17/882,082	08/05/2022	Timothy P. Heikell	N106-0002USC4

CONFIRMATION NO. 4844

29150
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PUBLICATION NOTICE

OC000000137039730

Title: Systems, Methods and Apparatus for Evaluating Status of Computing Device User

Publication No.US-2022-0398476-A1
Publication Date:12/15/2022

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PTO/SB/06 (09-11)
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PATENT APPLICATION FEE DETERMINATION RECORD Substitute for Form PTO-875	Application or Docket Number 17/882,082	Filing Date 08/05/2022	☐ To be Mailed

ENTITY: ☐ LARGE ☑ SMALL ☐ MICRO

APPLICATION AS FILED - PART I

FOR	(Column 1) NUMBER FILED	(Column 2) NUMBER EXTRA		RATE ($)	FEE ($)
☐ BASIC FEE (37 CFR 1.16(a), (b), or (c))	N/A	N/A		N/A	
☐ SEARCH FEE (37 CFR 1.16(k), (i), or (m))	N/A	N/A		N/A	
☐ EXAMINATION FEE (37 CFR 1.16(o), (p), or (q))	N/A	N/A		N/A	
TOTAL CLAIMS (37 CFR 1.16(i))	minus 20 =	*		x $50 =	
INDEPENDENT CLAIMS (37 CFR 1.16(h))	minus 3 =	*		x $240 =	
☐ APPLICATION SIZE FEE (37 CFR 1.16(s))	If the specification and drawings exceed 100 sheets of paper, the application size fee due is $310 ($155 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).				
☐ MULTIPLE DEPENDENT CLAIM PRESENT (37 CFR 1.16(j))					
* If the difference in column 1 is less than zero, enter "0" in column 2.				TOTAL	

APPLICATION AS AMENDED - PART II

		(Column 1)		(Column 2)	(Column 3)			
AMENDMENT	01/30/2023	CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA		RATE ($)	ADDITIONAL FEE ($)
	Total (37 CFR 1.16(i))	* 30	Minus	** 30	= 0		x $40 =	0
	Independent (37 CFR 1.16(h))	* 3	Minus	*** 3	= 0		x $192 =	0
	☐ Application Size Fee (37 CFR 1.16(s))							
	☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))							
							TOTAL ADD'L FEE	0

		(Column 1)		(Column 2)	(Column 3)			
AMENDMENT		CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA		RATE ($)	ADDITIONAL FEE ($)
	Total (37 CFR 1.16(i))	*	Minus	**	=		x $0 =	
	Independent (37 CFR 1.16(h))	*	Minus	***	=		x $0 =	
	☐ Application Size Fee (37 CFR 1.16(s))							
	☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))							
							TOTAL ADD'L FEE	

* If the entry in column 1 is less than the entry in column 2, write "0" in column 3.	LIE
** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20".	/SULONDA D STEVENSON/
*** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, enter "3".	
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EFS ID:	47452546
Application Number:	17882082
International Application Number:	
Confirmation Number:	4844
Title of Invention:	Systems, Methods and Apparatus for Evaluating Status of Computing Device User
First Named Inventor/Applicant Name:	Timothy P. Heikell
Customer Number:	29150
Filer:	Beatrice Louise Koempel-Thomas/Phillip Cameron
Filer Authorized By:	Beatrice Louise Koempel-Thomas
Attorney Docket Number:	N106-0002USC4
Receipt Date:	30-JAN-2023
Filing Date:	05-AUG-2022
Time Stamp:	23:57:15
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	no

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Amendment/Request for Reconsideration-After Non-Final Rejection	PDF_NFOA_as_Filed.pdf	225237 f4542cbc234d5e22e976994185b2dfc532a9adcb	no	30

Warnings:

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New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE (USPTO)	
Application Serial Number	17/882,082
Confirmation Number	4844
Filing Date	August 05, 2022
Title of Application	Systems, Methods and Apparatus for Evaluating Status of Computing Device User
First Named Inventor	Timothy P. Heikell
Assignee	Nobots LLC
Group Art Unit	2434
Examiner	Lipman
Attorney Docket Number	N106-0002USC4

To: Commissioner for Patents
PO Box 1450
Alexandria, VA 22313-1450

From: Beatrice L. Koempel-Thomas (Tel. 509-324-9256; Fax 509-323-8979)
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601 W. Riverside Ave, Suite 1400
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Customer Number 29150

Response to October 28, 2022 Non-Final Office Action

Applicant's attorney believes that no fees are due with this filing; however, Applicant's attorney hereby authorizes the Commissioner to charge any deficiency of fees and credit any overpayments to Deposit Account Number 12-0769.

A Specification Amendment begins on page 2 of this document.

A Listing of the Claims begins on page 3 of this document.

Remarks begin on page 11 of this document.

SPECIFICATION AMENDMENT

Please amend the last paragraph on page 8 of the specification as follows:

An embodiment of the invention employs a first layer of testing that simply checks if there were valid mouse movements and/or key strokes inputted by the user of a computing device that is attempting to access a server resource "protected" from bots. This basic "if-then" check is essentially without overhead since there are no computations being carried out.

CLAIM LISTING

1. (Previously Presented) A non-transitory machine readable medium having stored thereon instructions for performing a method for generating a value indicative of a likelihood that a human or autonomic computer application is operating a client computer attempting access to a protected page of a website, which when executed by at least one machine, causes the at least one machine to perform operations comprising:

provide data collection data that causes the client computer to collect active data relating to interactions of the client computer with a given page of the website;

receive at least some of the collected active data from the client computer and at least some passive data from the client computer;

perform a first analysis comprising analyzing at least some of the received active data and at least some of the received passive data in conjunction with model data based on human interactions from a prior session with the same website;

generate a first analysis value based on the first analysis, wherein the client computer is allowed to access the protected page without requiring an operator of the client computer to decipher a CAPTCHA test if the first analysis value meets a first analysis predetermined criteria;

determine that the first analysis value fails to meet the first analysis predetermined criteria;

provide a CAPTCHA test to the client computer based on the determination that the first analysis value fails to meet the first analysis predetermined criteria;

receive a response of the client computer to the CAPTCHA test;

perform a second analysis comprising assessing accuracy of the response of the client computer to the CAPTCHA test; and

generate a second analysis value based on the second analysis, wherein the client computer is granted access to the protected page based on the second analysis value meeting a second analysis predetermined criteria.

2. (Previously Presented) The non-transitory machine readable medium of claim 1, further comprising instructions, when executed by the at least one machine, that cause the at least one machine to:

provide an additional CAPTCHA test to the client computer based on the determination that the second analysis value fails to meet the second analysis predetermined criteria;

receive a response of the client computer to the additional CAPTCHA test;

perform a third analysis comprising assessing the accuracy of the client computer's response to the additional CAPTCHA test; and

generate a third analysis value based on the third analysis, wherein the client computer is granted access to the protected page based on the third analysis value meeting a third analysis predetermined criteria.

3. (Previously Presented) The non-transitory machine readable medium of claim 1, wherein the data collection data comprises JavaScript code that causes a browser of the client computer to collect the active data.

4. (Previously Presented) The non-transitory machine readable medium of claim 3, wherein the received passive data comprises at least one browser cookie and at least one Internet Protocol (IP) address associated with the client computer, and wherein the step of analyzing at least some of the received active data and at least some of the received passive data in conjunction with model data further includes analyzing the at least one browser cookie and the at least one IP address in conjunction with the model data.

5. (Previously Presented) The non-transitory machine readable medium of claim 4, wherein the step of analyzing at least some of the received active data and at least some of the received passive data in conjunction with model data includes analyzing manual device input activity of the client computer in conjunction with the model data based on human interaction with the same given page.

6. (Previously Presented) The non-transitory machine readable medium of claim 5, wherein the manual device input activity comprises mouse movement over a CAPTCHA test prompt.

7. (Previously Presented) The non-transitory machine readable medium of claim 5, wherein the human interaction from a prior session with the same website includes human interaction of another client computer from the prior session with the same given page.

8. (Previously Presented) The non-transitory machine readable medium of claim 7, wherein the received active data comprises keyboard activity of the client computer on the given page and wherein the step of analyzing at least some of the received active data and at least some of the received passive data in conjunction with model data further includes analyzing the keyboard activity in conjunction with the model data.

9. (Previously Presented) The non-transitory machine readable medium of claim 1, wherein when the first analysis value meets a first analysis predetermined criteria, the client computer is not presented with a CAPTCHA test prior to the client computer being granted access to the protected page.

10. (Previously Presented) The non-transitory machine readable medium of claim 1, further comprising instructions, when executed by the at least one machine, that cause the at least one machine to decrypt the received active data and the received passive data.

11. (Previously Presented) The non-transitory machine readable medium of claim 1, wherein the model data is based on human interaction from a prior session with the same given page.

12. (Previously Presented) The non-transitory machine readable medium of claim 1, wherein the ability of the client computer to collect active data is only active while the client computer is visiting a web page enabled with data collection data.

13. (Previously Presented) The non-transitory machine readable medium of claim 1, further comprising instructions, when executed by the at least one machine, that cause the at least one machine to receive the first or second analysis predetermined criteria from an operator or administrator of the website.

14. (Previously Presented) The non-transitory machine readable medium of claim 1, further comprising instructions, when executed by the at least one machine, that cause the at least one machine to receive from an operator or administrator of the website a number of CAPTCHA tests that will be provided to a client computer after the second analysis value fails to meet the second analysis predetermined criteria.

15. (Previously Presented) The non-transitory machine readable medium of claim 1, wherein the step of analyzing at least some of the received active data and at least some of the received passive data in conjunction with model data further comprises analyzing mouse and keyboard activity of the client computer in conjunction with mouse and keyboard activity from human interactions from a prior session with the same website.

16. (Previously Presented) A non-transitory machine readable medium having stored thereon instructions for performing a method for providing a value indicating a judgment of whether a human or an autonomic computer application operating a client computer is interacting with a server, which when executed by at least one machine, causes the at least one machine to perform operations comprising:

provide data collection data requesting active and passive data of the client computer;

receive active and passive data responsive to the data collection data, the received active data relating to interactions of the client computer with a website of the server;

analyze the received active data and the received passive data for indication of a human or an autonomic computer application operating the client computer, wherein the analyzing includes analyzing the received active data and the received passive data in conjunction with model data based on human interactions from a prior session with the same website and developing a first analysis value;

determine that the first analysis value fails to meet a first analysis predetermined criteria; and

provide a request for further data from the client computer based on the determination that the first analysis value fails to meet the first analysis predetermined criteria.

17. (Previously Presented) The non-transitory machine readable medium of claim 16, further comprising instructions, when executed by the at least one machine, that cause the at least one machine to:

receive further data from the client computer in response to the request for further data;

perform a second level of analyzing on the received further data; and

provide a second analysis value based on the second level of analyzing.

18. (Previously Presented) The non-transitory machine readable medium of claim 17, wherein the received further data includes the response of the client computer to a CAPTCHA test provided to the client computer.

19. (Previously Presented) The non-transitory machine readable medium of claim 16, wherein the first analysis value failing to meet the first analysis predetermined criteria indicates that the client computer should not be allowed access to a protected page of the website.

20. (Previously Presented) The non-transitory machine readable medium of claim 16, wherein the received active data includes manual input device activity and the received passive data includes at least one browser cookie and at least one IP address,

and the analyzing includes analyzing the at least one browser cookie, the at least one IP address, and the manual input device activity in conjunction with model data based on human interactions from a prior session with the same website.

21. (Previously Presented) The non-transitory machine readable medium of claim 16, further comprising instructions, when executed by the at least one machine to decrypt the received active data and the received passive data.

22. (Previously Presented) A non-transitory machine readable medium having stored thereon instructions for performing a method for providing a value indicating a judgment of whether a human or an autonomic computer application operating a client computer is interacting with a server, which when executed by the at least one machine, causes the at least one machine to perform operations comprising:

provide instructions that allow client computer interactions with a website of the server to be remotely monitored;

receive monitored data originating with the client computer, the monitored data comprising active data relating to interactions of the client computer with the website and passive data of the client computer;

analyze the received monitored data for indication of a human or an autonomic computer application operating the client computer, the analyzing including:

perform a first level of analyzing on the received monitored data for any indication that a human may be operating the client computer to obtain a first-level analysis;

perform a second level of analyzing to obtain a second-level analysis, when the first-level analysis does not meet a first-level analysis predetermined criteria, the second level of analyzing comprising analyzing the received monitored data in conjunction with previously recorded data relating to human interactions from a prior session with the same website; and

provide a second-level analysis value when the second-level analysis meets a second-level analysis predetermined criteria.

23. (Previously Presented) The non-transitory machine readable medium of claim 22, the analyzing further comprising instructions, when executed by the at least one machine, that cause the at least one machine to:

provide a request for further data from the client computer based on the determination that the second-level analysis does not meet the second level analysis predetermined criteria.

24. (Previously Presented) The non-transitory machine readable medium of claim 23, the analyzing further comprising instructions, when executed by the at least one machine, that cause the at least one machine to:

receive further data from the client computer in response to the request for further data;

perform a third-level of analyzing on the received further data; and

provide a third-level analysis value after completion of the third-level of analyzing.

25. (Previously Presented) The non-transitory machine readable medium of claim 24, wherein the request for further data includes a CAPTCHA test.

26. (Previously Presented) The non-transitory machine readable medium of claim 22, wherein the received monitored data includes at least one browser cookie and at least one IP address.

27. (Previously Presented) The non-transitory machine readable medium of claim 26, wherein the received monitored data includes manual device input activity.

28. (Previously Presented) The non-transitory machine readable medium of claim 27, wherein the manual device input activity comprises mouse movement and key strokes.

29. (Previously Presented) The non-transitory machine readable medium of claim 22, further comprising instructions, when executed by the at least one machine, that cause the at least one machine to decrypt the received monitored data.

30. (Previously Presented) The non-transitory machine readable medium of claim 22, wherein the monitored data comprises active data relating to interactions of the client computer with a given page of the website and passive data of the client computer, and the recorded data relates to human interaction from a prior session with the same given page.

REMARKS

Applicant's attorney respectfully requests reconsideration and allowance of all of the claims of the application. The status of the claims is as follows:

- Claims 1-30 were pending at the time of the action.
- Applicant presents claims 1-30 for examination.

This response does not introduce any new matter.

Non-Statutory Double Patenting Rejection

Claims 1-30 are provisionally rejected on the ground of nonstatutory double patenting as being unpatentable over claims 1, 2, 4-8, and 29-48 of copending Application No. 16/578,823 and claims 1-30 of copending Application No. 17/874,137.

Reserving comment regarding the propriety of the provisional obviousness-type double patenting rejection, Applicant's attorney respectfully requests that the provisional rejection be held in abeyance until the claims of the subject applications are allowed.

Claim 6 Complies with § 112(a)

Claim 6 stands rejected under 35 U.S.C. § 112(a), as allegedly failing to comply with the written description requirement. Applicant's attorney respectfully traverses this rejection.

As mentioned in the Background of the instant application, "CAPTCHA" is the acronym for (Completely Automated Public Turing test to tell Computers and Humans Apart)." *Specification*, p. 2. "A common type of CAPTCHA requires that the user type the letters, digits or characters of a distorted image appearing on the screen." *Id.*

Support for claim 6 can be found at least in on page 8 of the Specification, which describes "assessing user biometrics having a time domain, [so] the time variable becomes a necessary component to accessing the data and/or functionality of the server. Because such assessment has heretofore been absent as a valid CAPTCHA marker of a human user, and more importantly because proper data input would necessarily slow the process, the likelihood of bot penetration has been significantly reduced" by the techniques claimed in the application. *See e.g., Specification*, p. 8. The application goes on to describe "a first layer of testing that simply checks if there were valid mouse movements and/or key strokes inputted by the user of a computing device that is attempting to access a server resource 'protected' from bots[.] This basic 'if-then' check is essentially without overhead since there are no computations being carried out." *Id*, p. 8. "Checking for the existence of the target activity therefore represents a first pass evaluation; if the bot is not programmed to include pseudo biometric data, further access is denied. In other words, if no activity is recorded there is a very high probability that the user is actually a bot." *Id.*, pp. 9.

As the quoted text sets forth, assessment of mouse movement represents *a valid CAPTCHA marker of a human user* useful as a first layer of testing when a computing device is attempting to access a server resource protected from bots. Since common types of CAPTCHAs require an input of letters, digits, or characters presented via a screen, a human user is typically going to use a mouse to navigate to the field to type the input whereas a bot would not. Thus, one manual device input activity the Specification supports analyzing is "manual device input activity compris[ing] mouse movement over a CAPTCHA test prompt," as claim 6 recites.

Accordingly, Applicant's attorney respectfully requests withdrawal of the rejection of claim 6 under 35 U.S.C. § 112(a).

Cited Documents

The Office applies the following to reject one or more claims of the Application:

- **Afergan:** Afergan et al., U.S. Patent Application Publication No. 2008/0086524
- **McNair:** McNair et al., U.S. Patent Application Publication No. 5,375,244
- **Farahat:** Farahat et al., U.S. Patent Application Publication No. 2005/0144067
- **O'Connell:** O'Connell et al., U.S. Patent Application Publication No. 2007/0239604

Claims 1, 2, 9-14, 16-19, 21-25, 29, and 30 Would Not Have Been Obvious over Afergan, McNair and Farahat

Claims 1, 2, 9-14, 16-19, 21-25, 29, and 30 stand rejected under 35 U.S.C. § 103 as allegedly being obvious over a combination of Afergan in view of McNair and further in view of Farahat. Applicant respectfully traverses the rejection. Applicant's attorney respectfully requests reconsideration in light of the remarks presented herein.

Independent Claim 1

Claim 1, recites:

> A non-transitory machine readable medium having stored thereon instructions for performing a method for generating a value indicative of a likelihood that a human or autonomic computer application is operating a client computer attempting access to a protected page of a website, which when executed by at least one machine, causes the at least one machine to perform operations comprising:
>
> provide data collection data that causes the client computer to collect active data relating to interactions of the client computer with a given page of the website;

receive at least some of the collected active data from the client computer and at least some passive data from the client computer;

perform a first analysis comprising analyzing at least some of the received active data and at least some of the received passive data in conjunction with model data based on human interactions from a prior session with the same website;

generate a first analysis value based on the first analysis, wherein the client computer is allowed to access the protected page without requiring an operator of the client computer to decipher a CAPTCHA test if the first analysis value meets a first analysis predetermined criteria;

determine that the first analysis value fails to meet the first analysis predetermined criteria;

provide a CAPTCHA test to the client computer based on the determination that the first analysis value fails to meet the first analysis predetermined criteria;

receive a response of the client computer to the CAPTCHA test;

performing a second analysis comprising assessing accuracy of the response of the client computer to the CAPTCHA test; and

generate a second analysis value based on the second analysis, wherein the client computer is granted access to the protected page based on the second analysis value meeting a second analysis predetermined criteria.

Without conceding propriety of the asserted combination, Afergan, McNair and Farahat do not render claim 1 unpatentable.

Afergan describes a "method and system for identifying valid users operating across a distributed network," *Afergan*, Title. Afergan discusses a "content delivery network (CDN) service provider extends a content delivery network to gather information on atomically identifiable web clients (called 'user agents') as such computer-implemented entities interact with the CDN across different domains being managed by the CDN service provider." *Id.*, Abstract.

McNair describes a "system and method for granting access to a resource," *McNair*, Title. McNair "relates generally to a system for controlling access to a resource, such as a telecommunications network or a computer, so that access by unauthorized

persons is disallowed." *Id.*, col. 1, ll. 5-10. Importantly, McNair is concerned with hackers impersonating a known user. *See Id.*, col. 10, ll. 50 – col. 11, ll. 15.

Meanwhile, Farahat describes "identifying and reporting unexpected behavior in [a] targeted advertising environment," *Farahat*, Title. In particular, Farahat is directed to

> generating or determining data sources useful for detecting non-conforming behavior associated with pay-per-click advertising in a keyword searching environment includes: a) observing behavior associated with the pay-per-click advertising, b) predicting behavior associated with the observed behavior, and c) comparing the observed behavior to the predicted behavior to identify unexpected behavior associated with the pay-per-click advertising.

Id., Abstract.

The Office Action does not reject the totality of claim 1. Therefore, Applicant's attorney respectfully asserts that claim 1 is allowable over the cited documents at least because none have been cited to reject the following elements that claim 1 recites.

> determine that the first analysis value fails to meet the first analysis predetermined criteria;
>
> provide a CAPTCHA test to the client computer based on the determination that the first analysis value fails to meet the first analysis predetermined criteria;
>
> receive a response of the client computer to the CAPTCHA test;
>
> perform a second analysis comprising assessing accuracy of the response of the client computer to the CAPTCHA test; and
>
> generate a second analysis value based on the second analysis, wherein the client computer is granted access to the protected page based on the second analysis value meeting a second analysis predetermined criteria.

Accordingly, Applicant's attorney respectfully asserts that claim 1 is allowable over the cited documents at least because these elements of claim 1 would not have been obvious in view of the cited documents Afergan, McNair and Farahat, whether taken alone or as they are asserted as a combination.

In order to be fully responsive to the pending Office Action, Applicant's attorney addresses deficiencies in the documents cited regarding several other elements of claim 1.

In the rejection of claim 1, the Office Action cites Afergan, paragraphs [0041] and [0042] as allegedly teaching, to "provide data collection data that causes the client computer to collect active data relating to interactions of the client computer with a given page of the website; [and] receive at least some of the collected active data from the client computer," as claim 1 recites. *Office Action*, p. 3. However, rather than describing causing a client computer to *collect active data relating to interactions of the client computer with a given page of a website having a protected page* and *receiving some of the collected active data from the client computer* consistent with description of the instant application, Afergan merely describes that it "tracks Users Agents within and between sites (or CND domains) using one of two methods, an active method, or a passive method." *Afergan*, ¶ [0041]. Therefore, Afergan explicitly contemplates that only one of two methods, which it describes as active and passive, would be employed.

The active method Afergan sets forth is "1. Upon requesting an object in the Content Domain, check if the user has presented a Domain ID Cookie. If so, this user has already been identified, therefore take no further action. If not, redirect the user to the Master Domain to acquire the Master ID." *Id.*, [0043]. "2. If the User does not present a Master ID cookie, generate a new unique ID and set the Master ID cookie it *[sic]* in the Master Domain. If the user does present a Master ID cookie, decrypt the ID, validate it, and if valid, re-encrypt it to be set in the Content Domain as a Domain ID cookie." *Id.*, ¶ [0044]. And, "3. Redirect the User back to the Content Domain with a specific URL such

that the Master ID can now be set as a Domain ID Cookie within the domain's namespace." *Id.*, ¶ [0045]. A "Domain ID Cookie" as described by Afergan does not disclose, teach or suggest, *active data collected from a client computer* as claim 1 recites.

Moreover, in the rejection of claim 1, the Office Action cites Afergan, paragraph [0050] as allegedly teaching, to "receive … at least some passive data from the client computer." *Office Action*, pp. 3-4. However, rather than describing receiving passive data consistent with description of the instant application, Afergan merely describes a "passive method," *Afergan*, ¶ [0050]. The passive method Afergan sets forth is to "1. Have the edge server record (in a log line) if a Per-Domain User ID Cookies *[sic]* is served with an object." *Id*, ¶ [0051]. And, "2. Have the edge server record (in a log line) if a Cross-Domain User Cookie is served with an object." *Id.*, ¶ [0052].

Among other reasons, independent claim 1 is allowable at least because Afergan does not disclose, teach or suggest to "provide data collection data that causes the client computer to collect active data relating to interactions of the client computer with a given page of the website; [and] receive at least some of the collected active data from the client computer and at least some passive data from the client computer;" as claim 1 recites.

Furthermore, in the rejection of claim 1, the Office Action cites Afergan, paragraph [0128] as allegedly teaching, to "generate a first analysis value based on the first analysis, wherein the client computer is allowed to access the protected page without requiring an operator of the client computer to decipher a CAPTCHA test if the first analysis value meets a first analysis predetermined criteria," as claim 1 recites. *Office Action*, p. 4. Afergan merely discusses a "use case" for the CDN that it describes may be as a "'bot mitigation' service." *Afergan*, ¶ [0128]. However, Afergan fails to disclose, teach or

suggest "generating a first analysis value based on the first analysis," consequently not teaching or suggesting what action the CDN of Afergan would take when a "first analysis value meets a first analysis predetermined criteria," much less refraining from "requiring an operator of the client computer to decipher a CAPTCHA test if the first analysis value meets a first analysis predetermined criteria," as claim 1 recites.

Among other reasons, independent claim 1 is allowable at least because Afergan does not disclose, teach or suggest to "generate a first analysis value based on the first analysis, wherein the client computer is allowed to access the protected page without requiring an operator of the client computer to decipher a CAPTCHA test if the first analysis value meets a first analysis predetermined criteria," as claim 1 recites.

The Office Action does not cite McNair or Farahat regarding the above-discussed claim features, nor does either so teach.

The Office Action asserts that Afergan discloses to "perform a first analysis comprising analyzing at least some of the received active data and at least some of the received passive data in conjunction with model data;" as claim 1 recites. *Office Action*, p. 4 (citing *Afergan*, ¶¶ [0128], [0154], [0155], and [0157]).

Afergan describes that

> a set of one or more factors are evaluated to determine whether a user agent is a ticket bot. These factors include, for example,: diversity of CDN domains visited by the client machine user agent, a purchase-to-catalog page ratio with respect to one or more pages associated with a given content provider domain, an amount of time that has passed from a last browsing session, an amount of time that the client machine user agent has been online during a current browsing session, and a number of IP addresses the client machine user agent has been associated with in a given time period. … Typically, it will be desirable to monitor a user agent across multiple sites or domains so that a determination of "normal' (human-like) behavior can be made across many sites, and perhaps over a given

> time period. Of course, with more data, the system can obtain more confidence that the user agent is associated with a valid user.

Afergan, ¶ [0154].

> The technique described herein is based on the premise that the system gives a user agent credit for interacting with a given site in a manner that looks normal (from the point of view of a human user), but typically the VUS will depend on the user agent being found to have exhibited such "normal" human behavior across multiple CDN-Supported sites (or domains), perhaps over some time period or according to some other criteria that tends to show such normal behavior.

Id., ¶ [0157].

The Office Action acknowledges that Afergan does not disclose, teach or suggest, "model data based on human interactions from a prior session with the same website;" as claim 1 recites, though the Office Action omits any discussion of Afergan disparaging analysis of *human interactions from a prior session with the same website*. Thus, one of ordinary skill in the art at the time of the priority filing for the instant application would not have looked toward McNair based on the disparagement of Afergan. Nevertheless, the Office Action cites McNair in an effort to remedy the deficiency Afergan. *Office Action*, p. 4. As discussed above, Afergan, at least in paragraphs [0154] and [0157] discourages analysis of interactions with an individual website and instead encourages determination of a user agent's status based on monitoring across a multitude of websites and domains.

Among other reasons, amended independent claim 1 is allowable over Afergan and McNair at least because the disparagement of Afergan would have discouraged one of ordinary skill in the art to look to McNair.

In the rejection of claim 1, the Office Action cites McNair as allegedly teaching "a model based on human interactions from a prior session with the same website," *Office Action*, p. 4 (citing *McNair*, col. 11, ll. 9-15). However, McNair is merely concerned with detecting "deviation from normal behavior" that is "highly unusual as compared to that

user's historical profile", thereby suggesting the "user's identity had been compromised." *McNair*, col. 11, ll. 12-15. McNair lacks any disclosure to suggest that the historical profile of a particular user would include "model data based on human interactions from a prior session with the same website," as claim 1 recites, for analysis in conjunction with "at least some of the received active data and at least some of the received passive data," as claim 1 recites.

The Office Action does not cite Farahat regarding to "perform a first analysis comprising analyzing at least some of the received active data and at least some of the received passive data in conjunction with model data based on human interactions from a prior session with the same website," nor does it so teach.

Among other reasons, amended independent claim 1 is allowable at least because McNair does not disclose, teach or suggest to "perform a first analysis comprising analyzing at least some of the received active data and at least some of the received passive data in conjunction with model data based on human interactions from a prior session with the same website," as claim 1 recites.

The Office Action states that Afergan and McNair, whether taken alone or in the asserted combination, do not disclose, teach or suggest "using CAPTCHA if the user is likely not human," though the Office Action cites Farahat. *Office Action*, pp. 4-5 (citing *Farahat*, ¶¶ [0053], [0057], and [0058]). Without conceding propriety of the rejection, Applicant's attorney respectfully reserves comment on that for which the Office Action cites Farahat.

For at least the reasons presented herein, claim 1 would not have been obvious in view of the cited documents Afergan, McNair and Farahat, whether considered alone or

as asserted as a combination. Accordingly, Applicant's attorney respectfully requests that the Office withdraw the § 103 rejection of claim 1.

Dependent Claims 2 and 9-14

Claims 2 and 9-14 ultimately depend from independent claim 1. As discussed above, claim 1 is allowable over the cited documents. Therefore, claims 2 and 9-14 are allowable over the cited documents of record for at least their dependency from an allowable base claim, and also for the additional features that each recites.

For example, claim 2 recites (in part):

> provide an additional CAPTCHA test to the client computer based on the determination that the second analysis value fails to meet the second analysis predetermined criteria;
> receive a response of the client computer to the additional CAPTCHA test;
> perform a third analysis comprising assessing the accuracy of the client computer's response to the additional CAPTCHA test; and
> generate a third analysis value based on the third analysis, wherein the client computer is granted access to the protected page based on the third analysis value meeting a third analysis predetermined criteria.

As another example, claim 14 recites (in part):

> receive from an operator or administrator of the website a number of CAPTCHA tests that will be provided to a client computer after the second analysis value fails to meet the second analysis predetermined criteria.

In the rejection of claims 2 and 14, the Office Action states that "none of the references discloses presenting a second CAPTCHA if the first one does not result in a human determination." *Office Action*, p. 5. The Office Action goes on to state that "The Examiner takes official notice that it is well known in the art to present multiple challenges to authenticate a user." *Id.*

Applicant's attorney respectfully traverses this taking of Official Notice at least on the following bases,

a) "The burden is on the Office to establish any prima facie case of unpatentability, thus the reasoning behind any rejection must be clearly articulated." *MPEP* § 707.07(d). By taking Official Notice in this instance, the Office Action impermissibly shifts the burden to the Applicant to attempt to prove a negative, i.e., that the claimed elements for which the Office relies on Official Notice to reject, were not well known at the time of the priority application filing. Since "Official notice unsupported by documentary evidence should only be taken by the examiner where the facts asserted to be well-known, or to be common knowledge in the art are capable of instant and unquestionable demonstration as being well-known," (MPEP § 2144.03) Applicant's attorney respectfully requests that the Office produce such documentary evidence, or withdraw the rejection based on taking Official Notice. Absent any documentary evidence of the facts rejected on the basis of Official Notice, the Office Action deprives the Applicant's attorney an opportunity to fully respond to the rejection. Such a stance may be considered an arbitrary and capricious decision of the USPTO and contrary to the Administrative Procedures Act.

b) As the MPEP states § 2144.03(A), while "it might be reasonable for the examiner in a first Office action to take official notice of facts by asserting that certain limitations in a dependent claim are old and well known expedients in the art without the support of documentary evidence provided the facts so noticed are of notorious character and serve only to "fill in the gaps" which might exist in the evidentiary showing made by the examiner to support a particular ground of rejection. (citing *In re Zurko,* 258 F.3d 1379, 1385, 59 USPQ2d 1693, 1697 (Fed. Cir. 2001); *Ahlert,* 424 F.2d at 1092, 165 USPQ at 421). It

would not be appropriate for the examiner to take official notice of facts without citing a prior art reference where the facts asserted to be well known are not capable of instant and unquestionable demonstration as being well-known. For example, assertions of technical facts in the areas of esoteric technology or specific knowledge of the prior art must always be supported by citation to some reference work recognized as standard in the pertinent art. *In re Ahlert,* 424 F.2d at 1091, 165 USPQ at 420-21. ... *n re Eynde,* 480 F.2d 1364, 1370, 178 USPQ 470, 474 (CCPA 1973) ("[W]e reject the notion that judicial or administrative notice may be taken of the state of the art. The facts constituting the state of the art are normally subject to the possibility of rational disagreement among reasonable men and are not amenable to the taking of such notice."). *MPEP* § 2144.03(A) (paragraph formatting removed).

c) the Office Action impermissibly omits language and generalizes the language from the claims including claims 2 and 14 to arrive at the rejection. Thus, Applicant's attorney can do no more than guess or surmise how the Office may be applying the Official Notice to reject the claims.

Accordingly, Applicant's attorney respectfully requests that the Office withdraw the § 103 rejection of claims 2 and 9-14.

Independent Claim 16

Claim 16, recites:

> A non-transitory machine readable medium having stored thereon instructions for performing a method for providing a value indicating a judgment of whether a human or an autonomic computer application operating a client computer is interacting with a server, which when

executed by at least one machine, causes the at least one machine to perform operations comprising:

provide data collection data requesting active and passive data of the client computer;

receive active and passive data responsive to the data collection data, the received active data relating to interactions of the client computer with a website of the server;

analyze the received active data and the received passive data for indication of a human or an autonomic computer application operating the client computer, wherein the analyzing includes analyzing the received active data and the received passive data in conjunction with model data based on human interactions from a prior session with the same website and developing a first analysis value;

determine that the first analysis value fails to meet a first analysis predetermined criteria; and

provide a request for further data from the client computer based on the determination that the first analysis value fails to meet the first analysis predetermined criteria.

Without conceding propriety of the asserted combination, Afergan, McNair and Farahat do not render independent claim 16 unpatentable.

Applicant's attorney discusses the cited documents above regarding independent claim 1. To the extent that independent claims 1 and 16 recite some similar subject matter, for at least reasons similar to those discussed above regarding independent claim 1, Applicant's attorney respectfully asserts that independent claim 16 is allowable over the cited documents for at least similar reasons as discussed above regarding independent claim 1. However, the Office Action does not address each feature of independent claim 16, and for at least this reason, Applicant's attorney respectfully requests that the Office fully examine independent claim 16.

Claim 16 is asserted as allowable over the cited documents at least because none of the cited documents, whether taken alone or in the asserted combination, disclose, teach or suggest, for example, to "provide data collection data requesting active and

passive data of the client computer;" and "analyze the received active data and the received passive data for indication of a human or an autonomic computer application operating the client computer, wherein the analyzing includes analyzing the received active data and the received passive data in conjunction with model data based on human interactions from a prior session with the same website and developing a first analysis value," as claim 16 recites.

For at least the reasons presented herein, independent claim 16 would not have been obvious in view of Afergan, McNair and Farahat. Accordingly, Applicant's attorney respectfully requests that the Office withdraw the § 103 rejection of claim 16.

Dependent Claims 17-19 and 21

Claims 17-19 and 21 each ultimately depend from independent claim 16. As discussed above, claim 16 is allowable over the cited documents. Therefore, claims 17-19 and 21 are allowable over the cited documents of record for at least their dependency from an allowable base claim, and also for the additional features that each recites.

Accordingly, Applicant's attorney respectfully requests that the Office withdraw the § 103 rejection of claims 17-19 and 21.

Independent Claim 22

Claim 22 recites:

> A non-transitory machine readable medium having stored thereon instructions for performing a method for providing a value indicating a judgment of whether a human or an autonomic computer application operating a client computer is interacting with a server, which when executed by the at least one machine, causes the at least one machine to perform operations comprising:
> provide instructions that allow client computer interactions with a website of the server to be remotely monitored;

receive monitored data originating with the client computer, the monitored data comprising active data relating to interactions of the client computer with the website and passive data of the client computer;

analyze the received monitored data for indication of a human or an autonomic computer application operating the client computer, the analyzing including:

perform a first level of analyzing on the received monitored data for any indication that a human may be operating the client computer to obtain a first-level analysis;

perform a second level of analyzing to obtain a second-level analysis, when the first-level analysis does not meet a first-level analysis predetermined criteria, the second level of analyzing comprising analyzing the received monitored data in conjunction with previously recorded data relating to human interactions from a prior session with the same website; and

provide a second-level analysis value when the second-level analysis meets a second-level analysis predetermined criteria.

Without conceding propriety of the asserted combination, Afergan, McNair and Farahat do not render independent claim 22 unpatentable.

Applicant's attorney discusses the cited documents above regarding independent claim 1. To the extent that independent claims 1 and 22 recite some similar subject matter, for at least reasons similar to those discussed above regarding independent claim 1, Applicant's attorney respectfully asserts that independent claim 22 is allowable over the cited documents for at least similar reasons as discussed above regarding independent claim 1. However, the Office Action does not address each feature of independent claim 22, and for at least this reason, Applicant's attorney respectfully requests that the Office fully examine independent claim 22.

Claim 22 is asserted as allowable over the cited documents at least because none of the cited documents, whether taken alone or in the asserted combination, disclose, teach or suggest, for example, to "receive monitored data originating with the client computer, the monitored data comprising active data relating to interactions of the client

computer with the website and passive data of the client computer;" and "perform a first level of analyzing on the received monitored data for any indication that a human may be operating the client computer to obtain a first-level analysis;" as claim 22 recites.

For at least the reasons presented herein, independent claim 22 would not have been obvious in view of Afergan, McNair and Farahat. Accordingly, Applicant's attorney respectfully requests that the Office withdraw the § 103 rejection of independent claim 22.

Dependent Claims 23-25, 29, and 30

Claims 23-25, 29, and 30 each ultimately depend from independent claim 22. As discussed above, claim 22 is allowable over the cited documents. Therefore, claims 23-25, 29, and 30 are allowable over the cited documents of record for at least their dependency from an allowable base claim, and also for the additional features that each recites.

In the rejection of claims 23-25, the Office Action states that "none of the references discloses presenting a second CAPTCHA if the first one does not result in a human determination." *Office Action*, p. 5. The Office Action goes on to state that "The Examiner takes official notice that it is well known in the art to present multiple challenges to authenticate a user." *Id.*

Applicant's attorney respectfully traverses this taking of Official Notice on at least similar bases as discussed above regarding the traversal of Official Notice related to claims 2 and 14.

Accordingly, Applicant's attorney respectfully requests that the Office withdraw the § 103 rejection of claims 23-25, 29, and 30.

Claims 3-8, 15, 20, and 26-28 Would Not Have Been Obvious over Afergan, McNair, Farahat, and O'Connell

Claims 3-8, 15, 20, and 26-28 stand rejected under 35 U.S.C. § 103 as allegedly being obvious over a combination of Afergan in View of McNair, in view of Farahat and further in view of O'Connell. Applicant's attorney respectfully traverses the rejection and respectfully requests reconsideration in light of the remarks presented herein.

Dependent Claims 3-8, and 15

Claims 3-8, and 15 each ultimately depend from independent claim 1. As discussed above, claim 1 is allowable over the combination of Afergan, McNair and Farahat. The Office cites O'Connell as allegedly teaching the respective features of dependent claims 3-8, and 15. Reserving comment on that for which the Office cites O'Connell and without conceding the propriety of the asserted combination of Afergan, McNair, Farahat, and O'Connell, the asserted combination fails to teach or suggest one or more features of independent claim 1. Therefore, claims 3-8, and 15 are allowable over the cited documents of record for at least their dependency from an allowable base claim, and also for the additional features that each recites.

Accordingly, Applicant's attorney respectfully requests that the Office withdraw the § 103 rejection of claims 3-8, and 15.

Dependent Claim 20

Claim 20 ultimately depends from independent claim 16. As discussed above, claim 16 is allowable over the combination of Afergan, McNair and Farahat. The Office cites O'Connell as allegedly teaching the respective features of dependent claim 20.

Reserving comment on that for which the Office cites O'Connell and without conceding the propriety of the asserted combination of Afergan, McNair, Farahat, and O'Connell, the asserted combination fails to teach or suggest one or more features of independent claim 16. Therefore, claim 20 is allowable over the cited documents of record for at least its dependency from an allowable base claim, and also for the additional features that it recites.

Accordingly, Applicant's attorney respectfully requests that the Office withdraw the § 103 rejection of claim 20.

Dependent Claims 26-28

Claims 26-28 ultimately depend from independent claim 22. As discussed above, claim 22 is allowable over the combination of Afergan, McNair and Farahat. The Office cites O'Connell as allegedly teaching the respective features of dependent claims 26-28. Reserving comment on that for which the Office cites O'Connell and without conceding the propriety of the asserted combination of Afergan, McNair, Farahat, and O'Connell, the asserted combination fails to teach or suggest one or more features of independent claim 22. Therefore, claims 26-28 are allowable over the cited documents of record for at least their dependency from an allowable base claim, and also for the additional features that each recites.

Accordingly, Applicant's attorney respectfully requests that the Office withdraw the § 103 rejection of claims 26-28.

Conclusion

For at least the foregoing reasons, all pending claims are in condition for allowance. Applicant respectfully requests reconsideration and prompt issuance of the application.

If any issues remain that would prevent allowance of this application, **Applicant requests that the Examiner contact the undersigned representative before issuing a subsequent Action.**

Respectfully Submitted,

Lee & Hayes, P.C.
Representatives for Applicant

By: /Bea Koempel-Thomas 58213/ Dated: January 30, 2023

Beatrice L. Koempel-Thomas
(bea@leehayes.com; 509-944-4759)
Registration No. 58213

Doc Code: DIST.E.FILE **Document Description: Electronic Terminal Disclaimer - Filed**	PTO/SB/25 U.S. Patent and Trademark Office Department of Commerce

Electronic Petition Request	**TERMINAL DISCLAIMER TO OBVIATE A PROVISIONAL DOUBLE PATENTING REJECTION OVER A PENDING "REFERENCE" APPLICATION**
Application Number	17882082
Filing Date	05-Aug-2022
First Named Inventor	Timothy Heikell
Attorney Docket Number	N106-0002USC4
Title of Invention	Systems, Methods and Apparatus for Evaluating Status of Computing Device User

☒ Filing of terminal disclaimer does not obviate requirement for response under 37 CFR 1.111 to outstanding Office Action

☒ This electronic Terminal Disclaimer is not being used for a Joint Research Agreement.

Owner	Percent Interest
Nobots LLC	100%

The owner(s) of percent interest listed above in the instant application hereby disclaims, except as provided below, the terminal part of the statutory term of any patent granted on the instant application which would extend beyond the expiration date of the full statutory term of any patent granted on pending reference Application Number(s)

17874137 filed on 07/26/2022

16578823 filed on 09/23/2019

as the term of any patent granted on said reference application may be shortened by any terminal disclaimer filed prior to the grant of any patent on the pending reference application. The owner hereby agrees that any patent so granted on the instant application shall be enforceable only for and during such period that it and any patent granted on the reference application are commonly owned. This agreement runs with any patent granted on the instant application and is binding upon the grantee, its successors or assigns.

In making the above disclaimer, the owner does not disclaim the terminal part of any patent granted on the instant application that would extend to the expiration date of the full statutory term of any patent granted on said reference application, "as the term of any patent granted on said reference application may be shortened by any terminal disclaimer filed prior to the grant of any patent on the pending reference application," in the event that any such patent granted on the pending reference application: expires for failure to pay a maintenance fee, is held unenforceable, is found invalid by a court of competent jurisdiction, is statutorily disclaimed in whole or terminally disclaimed under 37 CFR 1.321, has all claims canceled by a reexamination certificate, is reissued, or is in any manner terminated prior to the expiration of its full statutory term as shortened by any terminal disclaimer filed prior to its grant.

◉ Terminal disclaimer fee under 37 CFR 1.20(d) is included with Electronic Terminal Disclaimer request.

○ I certify, in accordance with 37 CFR 1.4(d)(4), that the terminal disclaimer fee under 37 CFR 1.20(d) required for this terminal disclaimer has already been paid in the above-identified application.	
Applicant claims the following fee status: ◉ Small Entity ○ Micro Entity ○ Regular Undiscounted I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.	
THIS PORTION MUST BE COMPLETED BY THE SIGNATORY OR SIGNATORIES I certify, in accordance with 37 CFR 1.4(d)(4) that I am: ◉ An attorney or agent registered to practice before the Patent and Trademark Office who is of record in this application Registration Number 58213 ○ A sole inventor ○ A joint inventor; I certify that I am authorized to sign this submission on behalf of all of the inventors as evidenced by the power of attorney in the application ○ A joint inventor; all of whom are signing this request	
Signature	/Bea Koempel-Thomas 58213/
Name	Bea Koempel-Thomas

*Statement under 37 CFR 3.73(b) is required if terminal disclaimer is signed by the assignee (owner).
Form PTO/SB/96 may be used for making this certification. See MPEP § 324.

Electronic Patent Application Fee Transmittal

Application Number:	17882082
Filing Date:	05-Aug-2022
Title of Invention:	Systems, Methods and Apparatus for Evaluating Status of Computing Device User
First Named Inventor/Applicant Name:	Timothy P. Heikell
Filer:	Beatrice Louise Koempel-Thomas/LeAnn Sassman
Attorney Docket Number:	N106-0002USC4

Filed as Small Entity

Filing Fees for Utility under 35 USC 111(a)

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Basic Filing:				
STATUTORY OR TERMINAL DISCLAIMER	2814	1	170	170
Pages:				
Claims:				
Miscellaneous-Filing:				
Petition:				
Patent-Appeals-and-Interference:				
Post-Allowance-and-Post-Issuance:				

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Extension-of-Time:				
Miscellaneous:				
			Total in USD ($)	**170**

Doc Code: DISQ.E.FILE
Document Description: Electronic Terminal Disclaimer – Approved

Application No.: 17882082

Filing Date: 05-Aug-2022

Applicant/Patent under Reexamination: Heikell

Electronic Terminal Disclaimer filed on February 22, 2023

☒ APPROVED

This patent is subject to a terminal disclaimer

☐ DISAPPROVED

Approved/Disapproved by: Electronic Terminal Disclaimer automatically approved by EFS-Web

U.S. Patent and Trademark Office

Electronic Acknowledgement Receipt	
EFS ID:	47575638
Application Number:	17882082
International Application Number:	
Confirmation Number:	4844
Title of Invention:	Systems, Methods and Apparatus for Evaluating Status of Computing Device User
First Named Inventor/Applicant Name:	Timothy P. Heikell
Customer Number:	29150
Filer:	Beatrice Louise Koempel-Thomas/LeAnn Sassman
Filer Authorized By:	Beatrice Louise Koempel-Thomas
Attorney Docket Number:	N106-0002USC4
Receipt Date:	22-FEB-2023
Filing Date:	05-AUG-2022
Time Stamp:	18:30:26
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	CARD
Payment was successfully received in RAM	$170
RAM confirmation Number	E20232LI30226504
Deposit Account	
Authorized User	
The Director of the USPTO is hereby authorized to charge indicated fees and credit any overpayment as follows:	

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Terminal Disclaimer-Filed (Electronic)	eTerminal-Disclaimer.pdf	44659 3c2bc47df4fb672d15fe8ed99e42eb0dc754e7dc	no	2
Warnings:					
Information:					
2	Fee Worksheet (SB06)	fee-info.pdf	38063 a9917070584108feb205fbaeef7906c8f75ec353	no	2
Warnings:					
Information:					
		Total Files Size (in bytes):	82722		

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New Applications Under 35 U.S.C. 111
If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.
National Stage of an International Application under 35 U.S.C. 371
If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.
New International Application Filed with the USPTO as a Receiving Office
If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

Applicant-Initiated Interview Summary	**Application No.** 17/882,082	**Applicant(s)** Heikell, Timothy P.		
	Examiner JACOB LIPMAN	**Art Unit** 2434	**AIA (First Inventor to File) Status** No	**Page** 1 of 1

All Participants (applicant, applicants representative, PTO personnel)	**Title**	**Type**
JACOB LIPMAN	Primary Examiner	Telephonic
Bea Koempel-Thomas	Attorney	

Date of Interview: 21 February 2023

Issues Discussed:

Non-statutory Double Patenting

The examiner informed applicant that the claims would be allowable with the filing of a TD, in the interest of compact prosecution. Applicant agreed to file a TD to place the application in condition of allowance.

/JACOB LIPMAN/ Primary Examiner, Art Unit 2434	

Applicant is reminded that a complete written statement as to the substance of the interview must be made of record in the application file. It is the applicants responsibility to provide the written statement, unless the interview was initiated by the Examiner and the Examiner has indicated that a written summary will be provided. See MPEP 713.04
Please further see:
MPEP 713.04
Title 37 Code of Federal Regulations (CFR) § 1.133 Interviews, paragraph (b)
37 CFR § 1.2 Business to be transacted in writing

Applicant recordation instructions: The formal written reply to the last Office action must include the substance of the interview. (See MPEP section 713.04). If a reply to the last Office action has already been filed, applicant is given a non-extendable period of the longer of one month or thirty days from this interview date, or the mailing date of this interview summary form, whichever is later, to file a statement of the substance of the interview.

Examiner recordation instructions: Examiners must summarize the substance of any interview of record. A complete and proper recordation of the substance of an interview should include the items listed in MPEP 713.04 for complete and proper recordation including the identification of the general thrust of each argument or issue discussed, a general indication of any other pertinent matters discussed regarding patentability and the general results or outcome of the interview, to include an indication as to whether or not agreement was reached on the issues raised.

Notice of References Cited	Application/Control No. 17/882,082	Applicant(s)/Patent Under Reexamination Heikell, Timothy P.	
	Examiner JACOB LIPMAN	Art Unit 2434	Page 1 of 1

U.S. PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	CPC Classification	US Classification
*	A	US-20080263636-A1	10-2008	Gusler; Carl P.	H04L63/1466	726/4
	B					
	C					
	D					
	E					
	F					
	G					
	H					
	I					
	J					
	K					
	L					
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FOREIGN PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Country	Name	CPC Classification
	N					
	O					
	P					
	Q					
	R					
	S					
	T					

NON-PATENT DOCUMENTS

*		Include as applicable: Author, Title Date, Publisher, Edition or Volume, Pertinent Pages)
	U	
	V	
	W	
	X	

*A copy of this reference is not being furnished with this Office action. (See MPEP § 707.05(a).)
Dates in MM-YYYY format are publication dates. Classifications may be US or foreign.

Search Notes	Application/Control No.	Applicant(s)/Patent Under Reexamination
	17/882,082	Heikell, Timothy P.
	Examiner	Art Unit
	JACOB LIPMAN	2434

CPC - Searched*		
Symbol	Date	Examiner
G06N7/005 or G06F21/316 or G06F21/50 or G06F2221/2133	02/22/2023	jl

CPC Combination Sets - Searched*		
Symbol	Date	Examiner

US Classification - Searched*			
Class	Subclass	Date	Examiner
706	52	02/22/2023	jl

* See search history printout included with this form or the SEARCH NOTES box below to determine the scope of the search.

Search Notes		
Search Notes	Date	Examiner
PE2E search	02/22/2023	jl
Inventor search	02/22/2023	jl
NPL (IP.com, google) search using the concept of comparing passive data to predicted human behavior	02/22/2023	jl

Interference Search			
US Class/CPC Symbol	US Subclass/CPC Group	Date	Examiner
G06N	7/005	02/22/2023	jl

/JACOB LIPMAN/ Primary Examiner, Art Unit 2434	

Issue Classification	Application/Control No.	Applicant(s)/Patent Under Reexamination
	17/882,082	Heikell, Timothy P.
	Examiner	**Art Unit**
	JACOB LIPMAN	2434

CPC							
Symbol						**Type**	**Version**
G06N	/	7	/	01		F	2023-01-01
G06F	/	21	/	50		I	2013-01-01
G06F	/	21	/	316		I	2013-01-01
G06F	/	2221	/	2133		A	2013-01-01

CPC Combination Sets								
Symbol						**Type**	**Set**	**Ranking**	**Version**
	/		/						

NONE		Total Claims Allowed:	
(Assistant Examiner)	(Date)	30	
/JACOB LIPMAN/ Primary Examiner, Art Unit 2434	22 February 2023	O.G. Print Claim(s)	O.G. Print Figure
(Primary Examiner)	(Date)	1	1

U.S. Patent and Trademark Office — Part of Paper No.: 20230222

Issue Classification	Application/Control No.	Applicant(s)/Patent Under Reexamination
	17/882,082	Heikell, Timothy P.
	Examiner	**Art Unit**
	JACOB LIPMAN	2434

INTERNATIONAL CLASSIFICATION				
CLAIMED				
G06N	/	7	/	01

NON-CLAIMED				
	/		/	

US ORIGINAL CLASSIFICATION	
CLASS	**SUBCLASS**
706	52

CROSS REFERENCES(S)						
CLASS	**SUBCLASS (ONE SUBCLASS PER BLOCK)**					

NONE (Assistant Examiner) (Date)	**Total Claims Allowed:** 30	
/JACOB LIPMAN/ Primary Examiner, Art Unit 2434 (Primary Examiner) 22 February 2023 (Date)	O.G. Print Claim(s) 1	O.G. Print Figure 1

Issue Classification	Application/Control No.	Applicant(s)/Patent Under Reexamination
	17/882,082	Heikell, Timothy P.
	Examiner	**Art Unit**
	JACOB LIPMAN	2434

☐ Claims renumbered in the same order as presented by applicant ☐ CPA ☑ T.D. ☐ R.1.47

CLAIMS

Final	Original	Final	Original	Final	Original	Final	Original	Final	Original	Final	Original	Final	Original	Final	Original
1	1	4	10	17	19	30	28								
2	2	5	11	18	20	23	29								
10	3	6	12	19	21	24	30								
11	4	7	13	22	22										
12	5	8	14	25	23										
13	6	9	15	26	24										
14	7	16	16	27	25										
15	8	20	17	28	26										
3	9	21	18	29	27										

NONE		**Total Claims Allowed:**	
(Assistant Examiner)	(Date)	30	
/JACOB LIPMAN/ Primary Examiner, Art Unit 2434	22 February 2023	O.G. Print Claim(s)	O.G. Print Figure
(Primary Examiner)	(Date)	1	1

U.S. Patent and Trademark Office — Part of Paper No.: 20230222

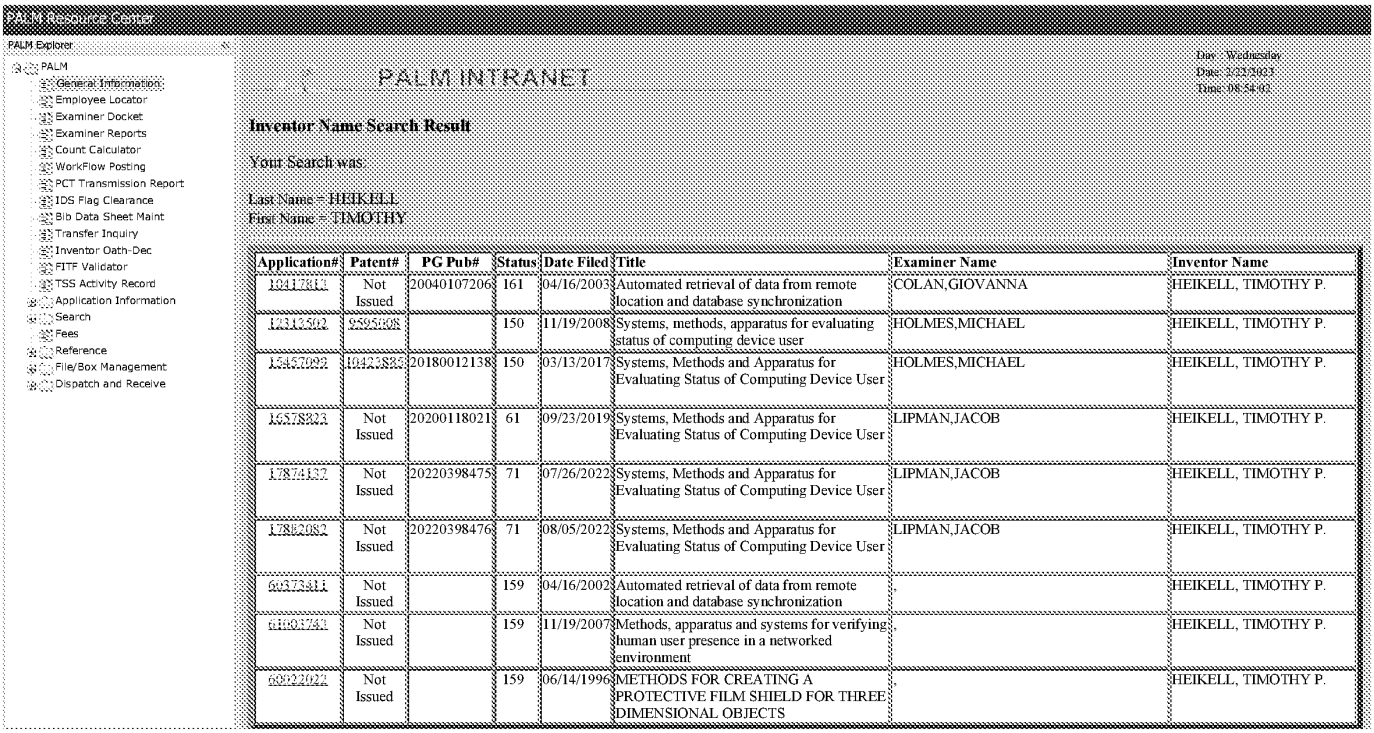
Index of Claims	Application/Control No.	Applicant(s)/Patent Under Reexamination
	17/882,082	Heikell, Timothy P.
	Examiner	**Art Unit**
	JACOB LIPMAN	2434

✓	Rejected	-	Cancelled	N	Non-Elected	A	Appeal
=	Allowed	÷	Restricted	I	Interference	O	Objected

CLAIMS

☐ Claims renumbered in the same order as presented by applicant ☐ CPA ☑ T.D. ☐ R.1.47

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2	2	✓	=							
10	3	✓	=							
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12	5	✓	=							
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28	26	✓	=							
29	27	✓	=							
30	28	✓	=							
23	29	✓	=							
24	30	✓	=							



Inventor Name Search Result

Your Search was:

Last Name = HEIKELL
First Name = TIMOTHY

Application#	Patent#	PG Pub#	Status	Date Filed	Title	Examiner Name	Inventor Name
10417811	Not Issued	20040107206	161	04/16/2003	Automated retrieval of data from remote location and database synchronization	COLAN,GIOVANNA	HEIKELL, TIMOTHY P.
12313502	8595808		150	11/19/2008	Systems, methods, apparatus for evaluating status of computing device user	HOLMES,MICHAEL	HEIKELL, TIMOTHY P.
15457099	10027685	20180012138	150	03/13/2017	Systems, Methods and Apparatus for Evaluating Status of Computing Device User	HOLMES,MICHAEL	HEIKELL, TIMOTHY P.
16578823	Not Issued	20200118021	61	09/23/2019	Systems, Methods and Apparatus for Evaluating Status of Computing Device User	LIPMAN,JACOB	HEIKELL, TIMOTHY P.
17874137	Not Issued	20220398475	71	07/26/2022	Systems, Methods and Apparatus for Evaluating Status of Computing Device User	LIPMAN,JACOB	HEIKELL, TIMOTHY P.
17882082	Not Issued	20220398476	71	08/05/2022	Systems, Methods and Apparatus for Evaluating Status of Computing Device User	LIPMAN,JACOB	HEIKELL, TIMOTHY P.
60373411	Not Issued		159	04/16/2002	Automated retrieval of data from remote location and database synchronization	,	HEIKELL, TIMOTHY P.
61083743	Not Issued		159	11/19/2007	Methods, apparatus and systems for verifying human user presence in a networked environment	,	HEIKELL, TIMOTHY P.
60822022	Not Issued		159	06/14/1996	METHODS FOR CREATING A PROTECTIVE FILM SHIELD FOR THREE DIMENSIONAL OBJECTS	,	HEIKELL, TIMOTHY P.

comparing passive data to predicted human behavior

ALL

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Related searches

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PE2E SEARCH - Search History (Prior Art)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	British Equivalents	Time Stamp
L1	363	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood	(US-PGPUB; USPAT)	OR	ON	ON	2022/03/31 11:16 AM
L2	153	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood AND human WITH model	(US-PGPUB; USPAT)	OR	ON	ON	2022/03/31 11:17 AM
L3	60	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood SAME human WITH model	(US-PGPUB; USPAT)	OR	ON	ON	2022/03/31 11:17 AM
L4	14	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood SAME human near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2022/03/31 11:17 AM
L5	95	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood AND human near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2022/03/31 11:19 AM
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L7	207	captcha AND human near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2022/03/31 11:20 AM
L8	1	"20060280339".pn.	(US-PGPUB; USPAT)	OR	ON	ON	2022/03/31 11:32 AM
L9	22	("5933498" "6460141" "7506170" "8694244" "8700259" "8706405" "8713657" "8738287" "8775235" "8775236" "8824659" "8825379"	(US-PGPUB; USPAT)	OR	ON	ON	2022/03/31 12:32 PM

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L11	4	human ADJ proof WITH model	(US-PGPUB; USPAT)	OR	ON	ON	2022/03/31 12:34 PM
L12	29	human ADJ proof SAME model	(US-PGPUB; USPAT)	OR	ON	ON	2022/03/31 12:34 PM
L13	36	human ADJ proof AND human near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2022/03/31 12:35 PM
L14	53	human ADJ proof AND human WITH model	(US-PGPUB; USPAT)	OR	ON	ON	2022/03/31 12:35 PM
L15	492	human ADJ proof AND human WITH model	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2022/03/31 12:35 PM
L16	492	human ADJ proof AND human WITH model	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2022/03/31 12:35 PM
L17	300	human ADJ proof SAME model	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB,	OR	ON	ON	2022/03/31 12:35 PM

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L20	213	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human near3 likelihood	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT;	OR	ON	ON	2022/03/31 12:37 PM

			IBM_TDB)				
L21	76104	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. grant$4 near2 access WITH human	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2022/03/31 02:20 PM
L22	181	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND grant$4 near2 access WITH human	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2022/03/31 02:20 PM
L23	153	(G06F2221/2133).cpc. AND grant$4 near2 access WITH human	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2022/03/31 02:20 PM
L24	185	(G06F2221/2133).cpc. AND allow$4 near2 access WITH human	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV,	OR	ON	ON	2022/03/31 02:20 PM

			MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)				
L25	394	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood	(US-PGPUB; USPAT)	OR	ON	ON	2022/10/23 11:41 AM
L26	177	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood AND human WITH model	(US-PGPUB; USPAT)	OR	ON	ON	2022/10/23 11:41 AM
L27	70	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood SAME human WITH model	(US-PGPUB; USPAT)	OR	ON	ON	2022/10/23 11:41 AM
L28	14	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood SAME human near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2022/10/23 11:41 AM
L29	108	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood AND human near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2022/10/23 11:41 AM
L30	100	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND captcha AND human near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2022/10/23 11:41 AM
L31	221	captcha AND human near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2022/10/23 11:41 AM
L32	1	"20060280339".pn.	(US-PGPUB; USPAT)	OR	ON	ON	2022/10/23 11:41 AM
L33	22	("5933498" "6460141" "7506170" "8694244" "8700259" "8706405"	(US-PGPUB; USPAT)	OR	ON	ON	2022/10/23 11:41 AM

		"8713657" "8738287" "8775235" "8775236" "8824659" "8825379" "8903052" "9047458" "9088652" "9152381" "9208461" "9240078" "9595008" "20080225870" "20090197815" "20130019290").pn.					
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L35	4	human ADJ proof WITH model	(US-PGPUB; USPAT)	OR	ON	ON	2022/10/23 11:41 AM
L36	33	human ADJ proof SAME model	(US-PGPUB; USPAT)	OR	ON	ON	2022/10/23 11:41 AM
L37	38	human ADJ proof AND human near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2022/10/23 11:41 AM
L38	56	human ADJ proof AND human WITH model	(US-PGPUB; USPAT)	OR	ON	ON	2022/10/23 11:41 AM
L39	657	human ADJ proof AND human WITH model	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2022/10/23 11:41 AM
L40	657	human ADJ proof AND human WITH model	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2022/10/23 11:41 AM
L41	409	human ADJ proof SAME model	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY,	OR	ON	ON	2022/10/23 11:41 AM

			CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)				
L42	674	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2022/10/23 11:41 AM
L43	101	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood WITH model	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2022/10/23 11:41 AM
L44	232	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human near3 likelihood	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH,	OR	ON	ON	2022/10/23 11:41 AM

			TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)				
L45	88054	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. grant$4 near2 access WITH human	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2022/10/23 11:41 AM
L46	194	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND grant$4 near2 access WITH human	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2022/10/23 11:41 AM
L47	158	(G06F2221/2133).cpc. AND grant$4 near2 access WITH human	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2022/10/23 11:41 AM
L48	195	(G06F2221/2133).cpc. AND allow$4 near2 access WITH human	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA,	OR	ON	ON	2022/10/23 11:41 AM

			EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)				
L49	1	"10423885".pn.	(US-PGPUB; USPAT)	OR	ON	ON	2022/10/23 11:54 AM
L50	1	"8713657".pn.	(US-PGPUB; USPAT)	OR	ON	ON	2022/10/23 11:59 AM
L51	1	"20130019290".pn.	(US-PGPUB; USPAT)	OR	ON	ON	2022/10/23 12:11 PM
L52	18	("6405922" "7089241" "7895653" "8280993" "8838570" "20050198158" "20050278253" "20070106737" "20070165911" "20070192419" "20070239604" "20070255818" "20070255821" "20080086524" "20080114624" "20080147456" "20080319774" "20090024971").pn.	(US-PGPUB; USPAT)	OR	ON	ON	2022/10/23 12:15 PM
L53	13	("6405922" "7089241" "7895653" "8280993" "8838570" "20050198158" "20050278253" "20070106737" "20070165911" "20070192419" "20070239604" "20070255818" "20070255821" "20080086524" "20080114624" "20080147456" "20080319774" "20090024971").pn. AND (likel$7 probab$7)	(US-PGPUB; USPAT)	OR	ON	ON	2022/10/23 12:16 PM
L54	8	("6405922" "7089241" "7895653" "8280993" "8838570" "20050198158" "20050278253" "20070106737"	(US-PGPUB; USPAT)	OR	ON	ON	2022/10/23 12:16 PM

		"20070165911" "20070192419" "20070239604" "20070255818" "20070255821" "20080086524" "20080114624" "20080147456" "20080319774" "20090024971").pn. AND (likel$7 probab$7) WITH (human person automat$7)					
L55	19896	activ$4 WITH passiv$4 AND (likel$7 probab$7) WITH (human person automat$7)	(US-PGPUB; USPAT)	OR	ON	ON	2022/10/23 12:26 PM
L56	446	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND activ$4 WITH passiv$4 AND (likel$7 probab$7) WITH (human person automat$7 bot)	(US-PGPUB; USPAT)	OR	ON	ON	2022/10/23 12:27 PM
L57	20	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND activ$4 WITH passiv$4 AND (likel$7 probab$7) WITH (human person automat$7 bot) AND captcha	(US-PGPUB; USPAT)	OR	ON	ON	2022/10/23 12:27 PM
L58	16	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND activ$4 WITH passiv$4 AND (likel$7 probab$7) WITH (human person automat$7 bot) WITH compar$4 WITH (prior previous$4 histor$7)	(US-PGPUB; USPAT)	OR	ON	ON	2022/10/23 04:36 PM
L59	46	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND (likel$7 probab$7) WITH (human person automat$7 bot) WITH compar$4 WITH (prior previous$4 histor$7)	(US-PGPUB; USPAT)	OR	ON	ON	2022/10/23 04:38 PM

L60	564	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND (human person automat$7 bot) WITH compar$4 WITH (prior previous$4 histor$7)	(US-PGPUB; USPAT)	OR	ON	ON	2022/10/23 04:39 PM
L61	257	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND (human person automat$7 bot) WITH compar$4 near4 (prior previous$4 histor$7)	(US-PGPUB; USPAT)	OR	ON	ON	2022/10/23 04:39 PM
L62	3	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND normal WITH (human person automat$7 bot) WITH compar$4 near4 (prior previous$4 histor$7)	(US-PGPUB; USPAT)	OR	ON	ON	2022/10/23 04:41 PM
L63	9	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND normal WITH (human person automat$7 bot) WITH captcha	(US-PGPUB; USPAT)	OR	ON	ON	2022/10/23 04:56 PM
L64	11	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND captcha WITH (human person automat$7 bot) WITH compar$4 near4 (prior previous$4 histor$7)	(US-PGPUB; USPAT)	OR	ON	ON	2022/10/23 04:56 PM
L65	121	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND captcha WITH (human person automat$7 bot) WITH (prior previous$4 histor$7)	(US-PGPUB; USPAT)	OR	ON	ON	2022/10/23 04:56 PM
L66	445	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND captcha AND	(US-PGPUB; USPAT)	OR	ON	ON	2022/10/23 04:57 PM

		(human person automat$7 bot) WITH (prior previous$4 histor$7)					
L67	27082	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc.	(US-PGPUB; USPAT)	OR	ON	ON	2022/10/24 11:24 AM
L68	157	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/21 12:57 PM
L69	44	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood AND human WITH model	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/21 12:57 PM
L70	15	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood SAME human WITH model	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/21 12:57 PM
L71	7	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood SAME human near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/21 12:57 PM
L72	29	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood AND human near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/21 12:57 PM
L73	99	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND captcha AND human near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/21 12:57 PM
L74	232	captcha AND human near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/21 12:57 PM
L75	1	"20060280339".pn.	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/21 12:57 PM
L76	22	("5933498" "6460141" "7506170" "8694244" "8700259" "8706405"	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/21 12:57 PM

		"8713657" "8738287" "8775235" "8775236" "8824659" "8825379" "8903052" "9047458" "9088652" "9152381" "9208461" "9240078" "9595008" "20080225870" "20090197815" "20130019290").pn.					
L77	0	human ADJ proof near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/21 12:57 PM
L78	4	human ADJ proof WITH model	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/21 12:57 PM
L79	33	human ADJ proof SAME model	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/21 12:57 PM
L80	38	human ADJ proof AND human near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/21 12:57 PM
L81	56	human ADJ proof AND human WITH model	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/21 12:57 PM
L82	737	human ADJ proof AND human WITH model	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/02/21 12:57 PM
L83	737	human ADJ proof AND human WITH model	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/02/21 12:57 PM
L84	457	human ADJ proof SAME model	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY,	OR	ON	ON	2023/02/21 12:57 PM

			CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)				
L85	274	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/02/21 12:57 PM
L86	17	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood WITH model	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/02/21 12:57 PM
L87	138	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human near3 likelihood	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH,	OR	ON	ON	2023/02/21 12:57 PM

			TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)				
L88	40846	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. grant$4 near2 access WITH human	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/02/21 12:57 PM
L89	183	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND grant$4 near2 access WITH human	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/02/21 12:57 PM
L90	161	(G06F2221/2133).cpc. AND grant$4 near2 access WITH human	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/02/21 12:57 PM
L91	199	(G06F2221/2133).cpc. AND allow$4 near2 access WITH human	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA,	OR	ON	ON	2023/02/21 12:57 PM

			EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)				
L92	157	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/21 12:57 PM
L93	44	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood AND human WITH model	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/21 12:57 PM
L94	15	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood SAME human WITH model	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/21 12:57 PM
L95	7	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood SAME human near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/21 12:57 PM
L96	29	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood AND human near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/21 12:57 PM
L97	99	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND captcha AND human near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/21 12:57 PM
L98	232	captcha AND human near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/21 12:57 PM
L99	1	"20060280339".pn.	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/21 12:57 PM

L100	22	("5933498" "6460141" "7506170" "8694244" "8700259" "8706405" "8713657" "8738287" "8775235" "8775236" "8824659" "8825379" "8903052" "9047458" "9088652" "9152381" "9208461" "9240078" "9595008" "20080225870" "20090197815" "20130019290").pn.	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/21 12:57 PM
L101	0	human ADJ proof near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/21 12:57 PM
L102	4	human ADJ proof WITH model	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/21 12:57 PM
L103	33	human ADJ proof SAME model	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/21 12:57 PM
L104	38	human ADJ proof AND human near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/21 12:57 PM
L105	56	human ADJ proof AND human WITH model	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/21 12:57 PM
L106	737	human ADJ proof AND human WITH model	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/02/21 12:57 PM
L107	737	human ADJ proof AND human WITH model	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/02/21 12:57 PM

L108	457	human ADJ proof SAME model	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/02/21 12:57 PM
L109	274	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/02/21 12:57 PM
L110	17	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood WITH model	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/02/21 12:57 PM
L111	138	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human near3 likelihood	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL,	OR	ON	ON	2023/02/21 12:57 PM

			NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)				
L112	40846	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. grant$4 near2 access WITH human	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/02/21 12:57 PM
L113	183	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND grant$4 near2 access WITH human	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/02/21 12:57 PM
L114	161	(G06F2221/2133).cpc. AND grant$4 near2 access WITH human	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/02/21 12:57 PM
L115	199	(G06F2221/2133).cpc. AND allow$4 near2	(US-PGPUB; USPAT; USOCR; FIT (AP, AT,	OR	ON	ON	2023/02/21 12:57 PM

		access WITH human	AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)				
L116	1	"10423885".pn.	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/21 12:57 PM
L117	1	"8713657".pn.	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/21 12:57 PM
L118	1	"20130019290".pn.	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/21 12:57 PM
L119	18	("6405922" "7089241" "7895653" "8280993" "8838570" "20050198158" "20050278253" "20070106737" "20070165911" "20070192419" "20070239604" "20070255818" "20070255821" "20080086524" "20080114624" "20080147456" "20080319774" "20090024971").pn.	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/21 12:57 PM
L120	13	("6405922" "7089241" "7895653" "8280993" "8838570" "20050198158" "20050278253" "20070106737" "20070165911" "20070192419" "20070239604" "20070255818" "20070255821" "20080086524" "20080114624" "20080147456" "20080319774" "20090024971").pn. AND (likel$7 probab$7)	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/21 12:57 PM
L121	8	("6405922" "7089241" "7895653" "8280993" "8838570"	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/21 12:57 PM

		"20050198158" "20050278253" "20070106737" "20070165911" "20070192419" "20070239604" "20070255818" "20070255821" "20080086524" "20080114624" "20080147456" "20080319774" "20090024971").pn. AND (likel$7 probab$7) WITH (human person automat$7)					
L122	20726	activ$4 WITH passiv$4 AND (likel$7 probab$7) WITH (human person automat$7)	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/21 12:57 PM
L123	115	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND activ$4 WITH passiv$4 AND (likel$7 probab$7) WITH (human person automat$7 bot)	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/21 12:57 PM
L124	22	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND activ$4 WITH passiv$4 AND (likel$7 probab$7) WITH (human person automat$7 bot) AND captcha	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/21 12:57 PM
L125	6	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND activ$4 WITH passiv$4 AND (likel$7 probab$7) WITH (human person automat$7 bot) WITH compar$4 WITH (prior previous$4 histor$7)	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/21 12:57 PM
L126	13	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND (likel$7 probab$7) WITH (human person	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/21 12:57 PM

		automat$7 bot) WITH compar$4 WITH (prior previous$4 histor$7)					
L127	292	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND (human person automat$7 bot) WITH compar$4 WITH (prior previous$4 histor$7)	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/21 12:57 PM
L128	85	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND (human person automat$7 bot) WITH compar$4 near4 (prior previous$4 histor$7)	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/21 12:57 PM
L129	1	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND normal WITH (human person automat$7 bot) WITH compar$4 near4 (prior previous$4 histor$7)	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/21 12:57 PM
L130	9	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND normal WITH (human person automat$7 bot) WITH captcha	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/21 12:57 PM
L131	11	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND captcha WITH (human person automat$7 bot) WITH compar$4 near4 (prior previous$4 histor$7)	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/21 12:57 PM
L132	124	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND captcha WITH (human person automat$7 bot) WITH (prior previous$4 histor$7)	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/21 12:57 PM
L133	432	(G06N7/005 OR G06F21/316 OR	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/21 12:57 PM

		G06F21/50 OR G06F2221/2133).cpc. AND captcha AND (human person automat$7 bot) WITH (prior previous$4 histor$7)					
L134	7070	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc.	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/21 12:57 PM
L135	157	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/22 08:48 AM
L136	44	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood AND human WITH model	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/22 08:48 AM
L137	15	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood SAME human WITH model	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/22 08:48 AM
L138	7	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood SAME human near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/22 08:48 AM
L139	29	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood AND human near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/22 08:48 AM
L140	99	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND captcha AND human near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/22 08:48 AM
L141	232	captcha AND human near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/22 08:48 AM
L142	1	"20060280339".pn.	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/22 08:48 AM

L143	22	("5933498" "6460141" "7506170" "8694244" "8700259" "8706405" "8713657" "8738287" "8775235" "8775236" "8824659" "8825379" "8903052" "9047458" "9088652" "9152381" "9208461" "9240078" "9595008" "20080225870" "20090197815" "20130019290").pn.	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/22 08:48 AM
L144	0	human ADJ proof near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/22 08:48 AM
L145	4	human ADJ proof WITH model	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/22 08:48 AM
L146	33	human ADJ proof SAME model	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/22 08:48 AM
L147	38	human ADJ proof AND human near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/22 08:48 AM
L148	56	human ADJ proof AND human WITH model	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/22 08:48 AM
L149	737	human ADJ proof AND human WITH model	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/02/22 08:48 AM
L150	737	human ADJ proof AND human WITH model	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/02/22 08:48 AM

L151	457	human ADJ proof SAME model	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/02/22 08:48 AM
L152	274	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/02/22 08:48 AM
L153	17	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood WITH model	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/02/22 08:48 AM
L154	138	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human near3 likelihood	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL,	OR	ON	ON	2023/02/22 08:48 AM

			NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)				
L155	40846	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. grant$4 near2 access WITH human	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/02/22 08:48 AM
L156	183	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND grant$4 near2 access WITH human	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/02/22 08:48 AM
L157	161	(G06F2221/2133).cpc. AND grant$4 near2 access WITH human	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/02/22 08:48 AM
L158	199	(G06F2221/2133).cpc. AND allow$4 near2	(US-PGPUB; USPAT; USOCR; FIT (AP, AT,	OR	ON	ON	2023/02/22 08:48 AM

		access WITH human	AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)				
L159	157	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/22 08:48 AM
L160	44	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood AND human WITH model	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/22 08:48 AM
L161	15	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood SAME human WITH model	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/22 08:48 AM
L162	7	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood SAME human near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/22 08:48 AM
L163	29	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood AND human near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/22 08:48 AM
L164	99	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND captcha AND human near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/22 08:48 AM
L165	232	captcha AND human near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/22 08:48 AM

L166	1	"20060280339".pn.	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/22 08:48 AM
L167	22	("5933498" "6460141" "7506170" "8694244" "8700259" "8706405" "8713657" "8738287" "8775235" "8775236" "8824659" "8825379" "8903052" "9047458" "9088652" "9152381" "9208461" "9240078" "9595008" "20080225870" "20090197815" "20130019290").pn.	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/22 08:48 AM
L168	0	human ADJ proof near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/22 08:48 AM
L169	4	human ADJ proof WITH model	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/22 08:48 AM
L170	33	human ADJ proof SAME model	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/22 08:48 AM
L171	38	human ADJ proof AND human near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/22 08:48 AM
L172	56	human ADJ proof AND human WITH model	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/22 08:48 AM
L173	737	human ADJ proof AND human WITH model	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/02/22 08:48 AM
L174	737	human ADJ proof AND human WITH model	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO;	OR	ON	ON	2023/02/22 08:48 AM

			JPO; DERWENT; IBM_TDB)				
L175	457	human ADJ proof SAME model	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/02/22 08:48 AM
L176	274	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/02/22 08:48 AM
L177	17	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood WITH model	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/02/22 08:48 AM
L178	138	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human near3 likelihood	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS,	OR	ON	ON	2023/02/22 08:48 AM

			IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)				
L179	40846	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. grant$4 near2 access WITH human	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/02/22 08:48 AM
L180	183	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND grant$4 near2 access WITH human	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/02/22 08:48 AM
L181	161	(G06F2221/2133).cpc. AND grant$4 near2 access WITH human	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/02/22 08:48 AM

L182	199	(G06F2221/2133).cpc. AND allow$4 near2 access WITH human	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/02/22 08:48 AM
L183	1	"10423885".pn.	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/22 08:48 AM
L184	1	"8713657".pn.	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/22 08:48 AM
L185	1	"20130019290".pn.	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/22 08:48 AM
L186	18	("6405922" "7089241" "7895653" "8280993" "8838570" "20050198158" "20050278253" "20070106737" "20070165911" "20070192419" "20070239604" "20070255818" "20070255821" "20080086524" "20080114624" "20080147456" "20080319774" "20090024971").pn.	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/22 08:48 AM
L187	13	("6405922" "7089241" "7895653" "8280993" "8838570" "20050198158" "20050278253" "20070106737" "20070165911" "20070192419" "20070239604" "20070255818" "20070255821" "20080086524" "20080114624" "20080147456" "20080319774" "20090024971").pn. AND (likel$7 probab$7)	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/22 08:48 AM
L188	8	("6405922" "7089241"	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/22

		"7895653" "8280993" "8838570" "20050198158" "20050278253" "20070106737" "20070165911" "20070192419" "20070239604" "20070255818" "20070255821" "20080086524" "20080114624" "20080147456" "20080319774" "20090024971").pn. AND (likel$7 probab$7) WITH (human person automat$7)					08:48 AM
L189	20726	activ$4 WITH passiv$4 AND (likel$7 probab$7) WITH (human person automat$7)	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/22 08:48 AM
L190	115	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND activ$4 WITH passiv$4 AND (likel$7 probab$7) WITH (human person automat$7 bot)	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/22 08:48 AM
L191	22	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND activ$4 WITH passiv$4 AND (likel$7 probab$7) WITH (human person automat$7 bot) AND captcha	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/22 08:48 AM
L192	6	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND activ$4 WITH passiv$4 AND (likel$7 probab$7) WITH (human person automat$7 bot) WITH compar$4 WITH (prior previous$4 histor$7)	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/22 08:48 AM
L193	13	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc.	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/22 08:48 AM

		AND (likel$7 probab$7) WITH (human person automat$7 bot) WITH compar$4 WITH (prior previous$4 histor$7)					
L194	292	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND (human person automat$7 bot) WITH compar$4 WITH (prior previous$4 histor$7)	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/22 08:48 AM
L195	85	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND (human person automat$7 bot) WITH compar$4 near4 (prior previous$4 histor$7)	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/22 08:48 AM
L196	1	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND normal WITH (human person automat$7 bot) WITH compar$4 near4 (prior previous$4 histor$7)	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/22 08:48 AM
L197	9	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND normal WITH (human person automat$7 bot) WITH captcha	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/22 08:48 AM
L198	11	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND captcha WITH (human person automat$7 bot) WITH compar$4 near4 (prior previous$4 histor$7)	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/22 08:48 AM
L199	124	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND captcha WITH (human person automat$7 bot) WITH (prior previous$4 histor$7)	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/22 08:48 AM

L200	432	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND captcha AND (human person automat$7 bot) WITH (prior previous$4 histor$7)	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/22 08:48 AM
L201	7070	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc.	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/22 08:48 AM
L202	157	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/22 08:48 AM
L203	44	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood AND human WITH model	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/22 08:48 AM
L204	15	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood SAME human WITH model	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/22 08:48 AM
L205	7	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood SAME human near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/22 08:48 AM
L206	29	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood AND human near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/22 08:48 AM
L207	99	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND captcha AND human near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/22 08:48 AM
L208	232	captcha AND human near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/22 08:48 AM

L209	1	"20060280339".pn.	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/22 08:48 AM
L210	22	("5933498" "6460141" "7506170" "8694244" "8700259" "8706405" "8713657" "8738287" "8775235" "8775236" "8824659" "8825379" "8903052" "9047458" "9088652" "9152381" "9208461" "9240078" "9595008" "20080225870" "20090197815" "20130019290").pn.	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/22 08:48 AM
L211	0	human ADJ proof near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/22 08:48 AM
L212	4	human ADJ proof WITH model	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/22 08:48 AM
L213	33	human ADJ proof SAME model	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/22 08:48 AM
L214	38	human ADJ proof AND human near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/22 08:48 AM
L215	56	human ADJ proof AND human WITH model	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/22 08:48 AM
L216	737	human ADJ proof AND human WITH model	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/02/22 08:48 AM
L217	737	human ADJ proof AND human WITH model	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO;	OR	ON	ON	2023/02/22 08:48 AM

			JPO; DERWENT; IBM_TDB)				
L218	457	human ADJ proof SAME model	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/02/22 08:48 AM
L219	274	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/02/22 08:48 AM
L220	17	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood WITH model	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/02/22 08:48 AM
L221	138	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human near3 likelihood	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS,	OR	ON	ON	2023/02/22 08:48 AM

			IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)				
L222	40846	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. grant$4 near2 access WITH human	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/02/22 08:48 AM
L223	183	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND grant$4 near2 access WITH human	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/02/22 08:48 AM
L224	161	(G06F2221/2133).cpc. AND grant$4 near2 access WITH human	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/02/22 08:48 AM

L225	199	(G06F2221/2133).cpc. AND allow$4 near2 access WITH human	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/02/22 08:48 AM
L226	157	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/22 08:48 AM
L227	44	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood AND human WITH model	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/22 08:48 AM
L228	15	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood SAME human WITH model	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/22 08:48 AM
L229	7	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood SAME human near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/22 08:48 AM
L230	29	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood AND human near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/22 08:48 AM
L231	99	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND captcha AND human near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/22 08:48 AM

L232	232	captcha AND human near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/22 08:48 AM
L233	1	"20060280339".pn.	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/22 08:48 AM
L234	22	("5933498" "6460141" "7506170" "8694244" "8700259" "8706405" "8713657" "8738287" "8775235" "8775236" "8824659" "8825379" "8903052" "9047458" "9088652" "9152381" "9208461" "9240078" "9595008" "20080225870" "20090197815" "20130019290").pn.	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/22 08:48 AM
L235	0	human ADJ proof near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/22 08:48 AM
L236	4	human ADJ proof WITH model	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/22 08:48 AM
L237	33	human ADJ proof SAME model	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/22 08:48 AM
L238	38	human ADJ proof AND human near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/22 08:48 AM
L239	56	human ADJ proof AND human WITH model	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/22 08:48 AM
L240	737	human ADJ proof AND human WITH model	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/02/22 08:48 AM
L241	737	human ADJ proof AND human WITH model	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK,	OR	ON	ON	2023/02/22 08:48 AM

			TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)				
L242	457	human ADJ proof SAME model	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/02/22 08:48 AM
L243	274	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/02/22 08:48 AM
L244	17	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood WITH model	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/02/22 08:48 AM
L245	138	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human near3	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA,	OR	ON	ON	2023/02/22 08:48 AM

		likelihood	EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)				
L246	40846	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. grant$4 near2 access WITH human	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/02/22 08:48 AM
L247	183	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND grant$4 near2 access WITH human	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/02/22 08:48 AM
L248	161	(G06F2221/2133).cpc. AND grant$4 near2 access WITH human	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO;	OR	ON	ON	2023/02/22 08:48 AM

			JPO; DERWENT; IBM_TDB)				
L249	199	(G06F2221/2133).cpc. AND allow$4 near2 access WITH human	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/02/22 08:48 AM
L250	1	"10423885".pn.	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/22 08:48 AM
L251	1	"8713657".pn.	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/22 08:48 AM
L252	1	"20130019290".pn.	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/22 08:48 AM
L253	18	("6405922" "7089241" "7895653" "8280993" "8838570" "20050198158" "20050278253" "20070106737" "20070165911" "20070192419" "20070239604" "20070255818" "20070255821" "20080086524" "20080114624" "20080147456" "20080319774" "20090024971").pn.	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/22 08:48 AM
L254	13	("6405922" "7089241" "7895653" "8280993" "8838570" "20050198158" "20050278253" "20070106737" "20070165911" "20070192419" "20070239604" "20070255818" "20070255821" "20080086524" "20080114624" "20080147456" "20080319774" "20090024971").pn.	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/22 08:48 AM

		AND (likel$7 probab$7)					
L255	8	("6405922" "7089241" "7895653" "8280993" "8838570" "20050198158" "20050278253" "20070106737" "20070165911" "20070192419" "20070239604" "20070255818" "20070255821" "20080086524" "20080114624" "20080147456" "20080319774" "20090024971").pn. AND (likel$7 probab$7) WITH (human person automat$7)	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/22 08:48 AM
L256	20726	activ$4 WITH passiv$4 AND (likel$7 probab$7) WITH (human person automat$7)	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/22 08:48 AM
L257	115	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND activ$4 WITH passiv$4 AND (likel$7 probab$7) WITH (human person automat$7 bot)	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/22 08:48 AM
L258	22	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND activ$4 WITH passiv$4 AND (likel$7 probab$7) WITH (human person automat$7 bot) AND captcha	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/22 08:48 AM
L259	6	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND activ$4 WITH passiv$4 AND (likel$7 probab$7) WITH (human person automat$7 bot) WITH compar$4 WITH (prior previous$4 histor$7)	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/22 08:48 AM
L260	13	(G06N7/005 OR G06F21/316 OR	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/22 08:48 AM

		G06F21/50 OR G06F2221/2133).cpc. AND (likel$7 probab$7) WITH (human person automat$7 bot) WITH compar$4 WITH (prior previous$4 histor$7)					
L261	292	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND (human person automat$7 bot) WITH compar$4 WITH (prior previous$4 histor$7)	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/22 08:48 AM
L262	85	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND (human person automat$7 bot) WITH compar$4 near4 (prior previous$4 histor$7)	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/22 08:48 AM
L263	1	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND normal WITH (human person automat$7 bot) WITH compar$4 near4 (prior previous$4 histor$7)	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/22 08:48 AM
L264	9	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND normal WITH (human person automat$7 bot) WITH captcha	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/22 08:48 AM
L265	11	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND captcha WITH (human person automat$7 bot) WITH compar$4 near4 (prior previous$4 histor$7)	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/22 08:48 AM
L266	124	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND captcha WITH (human person automat$7 bot) WITH	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/22 08:48 AM

		(prior previous$4 histor$7)					
L267	432	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND captcha AND (human person automat$7 bot) WITH (prior previous$4 histor$7)	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/22 08:48 AM
L268	7070	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc.	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/22 08:48 AM
L269	16	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND captcha AND (passive).clm.	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/02/22 09:13 AM
L270	12	("5375244" "7680891" "7945952" "8056129" "8413250" "8938395" "20060015390" "20070038568" "20080127302" "20090044264" "20100070620" "20150112892").pn.	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/22 09:23 AM

PE2E SEARCH - Search History (Interference)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	British Equivalents	Time Stamp
N1	0	captcha WITH anal$4 near3 passive	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/22 09:02 AM
N2	13	captcha WITH passive	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/22 09:02 AM
N3	0	(captcha WITH passive).clm.	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/22 09:02 AM
N4	2	(captcha SAME passive).clm.	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/22 09:02 AM
N5	12	(G06N7/005 G06F21/316	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/22 09:13 AM

		G06F21/50 G06F2221/2133).cpc. AND captcha AND (passive).clm.					

PTO/SB/08a (08-03)
Approved for use through 07/31/2006. OMB 0651-0031
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INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)		
	Application Number	17882082
	Filing Date	2022-08-05
	First Named Inventor	Timothy P. Heikell
	Art Unit	2434
	Examiner Name	
	Attorney Docket Number	N106-0002USC4

U.S.PATENTS						
Examiner Initial*	Cite No	Patent Number	Kind Code[1]	Issue Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear
	1	5375244	A	1994-12-20	McNair	
	2	7680891	B1	2010-03-16	Pongsajapan	
	3	7945952	B1	2011-05-17	Behforooz	
	4	8056129	B2	2011-11-08	Guslerll, et al.	
	5	8413250	B1	2013-04-02	Krynski	
	6	8938395	B2	2015-01-20	Willner, et al.	
If you wish to add additional U.S. Patent citation information please click the Add button.						
U.S.PATENT APPLICATION PUBLICATIONS						
Examiner Initial*	Cite No	Publication Number	Kind Code[1]	Publication Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear
	1	20060015390	A1	2006-01-19	Rijsinghani, et al.	

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /J.L/

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	2	20070038568	A1	2007-02-15	Greene, et al.	
	3	20080127302	A1	2013-12-03	Qvarfordt, et al.	
	4	20090044264	A1	2013-07-23	Ramanathan, et al.	
	5	20100070620	A1	2013-04-30	Awadallah, et al.	
	6	20150112892	A1	2015-04-23	Kaminsky, et al.	

If you wish to add additional U.S. Published Application citation information please click the Add button.

FOREIGN PATENT DOCUMENTS

Examiner Initial*	Cite No	Foreign Document Number[3]	Country Code[2]	Kind Code[4]	Publication Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear	T[5]
	1	JP2007213409	JP	A	2007-08-23	FUJITSU LTD		☐
	2	WO2007090605	WO	A1	2007-08-16	MEDIAKEY LTD		☐

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NON-PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc), date, pages(s), volume-issue number(s), publisher, city and/or country where published.	T[5]
	1	Ahn, et al., "CAPTCHA: Using Hard AI Problems for Security", Lecture Notes in Computer Science, Vol LNCS 2656, 2003, pp. 294-331	☐

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	2	Ahn, et al., "Human computation" Synthesis lectures on artificial intelligence and machine learning, Vol 5, No. 3, June 2011, pp. 1-121	☐
	3	Ahn, et al., "Labeling Images with a Computer Game", Association for Computing Machinery, New York, April 24-29, 2004, pp. 319-326	☐
	4	Ahn, et al., "reCAPTCHA: Human-Based Character Recognition via Web Security Measures", Science 321, No. 5895, Sept. 12, 2008, pp. 1465-1468	☐
	5	Ahn, et al., "Telling Humans and Computers Apart (Automatically)", retreived on 03/28/2022, <<https://web.archive.or / web/20070104074513/htt ://www.ca tcha.net:80/>>, Carnegie Mellon, 2004	☐
	6	Al-Qayed, et al., "Secure Centralised Mobile and Web-based control system USING GPRS with J2ME", ICECS2003 Sharjah U.A.E 2003, 5 pgs	☐
	7	Andersen, et al., "Using alert levels to enhance keystroke dynamic authentication", Nov. 19-21, 2007, 9 pgs	☐
	8	Athanasopoulos, et al., "Enhanced CAPTCHAs: Using animation to tell humans and computers apart" in IFIP International Conference on Communications and Multimedia Security, Springer, Berlin, Heidelberg, CMS 2006, LNCS 4237, October 2006, pp. 97-108	☐
	9	Baird, et al., "BaffleText: a human interactive proof," Proc. SPIE 5010, Document Recognition and Retrieval X, vol. 5010, (13 January 2003) pp. 305-316	☐
	10	Baird, et al., "Implicit captchas" In IS&T/SPIE Document Recognition and Retrieval XII, Vol. 5676, Jan. 16-20, 2006, pp. 191-196	☐
	11	Baker, "Click Fraud and How to Stop It", retrieved on December 7, 2004 at <<https://www.searchenginejournal.com/ click-fraud-and-how-to-stop-it/1123/#closee>>, SearchEngine Journal	☐
	12	Bannan, "Click Fraud is Growing on the Web", 11/02/2022, at <<https://www.nytimes.com/2006/09/23/ technology/23click.html>>, The New York Times, Sept. 23, 2006	☐

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	13	Barras, "Robot Asimo can understand three voices at once", retieved on 11/02/2022, <<https://www.newscientist.com/article/dn14105-robot-asimo-can-understand-three-voices-at-once/#:~:text=Advanced%20humanoid%20robot%20Asimo%20just,out%20their%20choices%20at%20once>>, NewScientist, 06/10/2008	☐
	14	BotBarrier, "Turn any digital image into a clickable CAPTCHA!", Captured March 22, 2008 and Retrieved Online November 16, 2022 from the Internet Archive Wayback Machine at <<<https://web.archive.org/web/20080621051833/http://ww.botbarrier.com:80/, BotBarrier>>>	☐
	15	BotBarrier; "How effective is BotBarrier?" Captured by the Internet Archive Wayback Machine on March 22, 2008 and Retrieved on November 16, 2022 at <<<https://web.archive.org/web/20080322231602/http://www.botbarrier.com:80/faq.html>>>	☐
	16	Chen et al., "Game bot detection based on avatar trajectory", International Conference on Entertainment Computing, Springer, Berlin, Heidelberg, 2008, pp. 94-105	☐
	17	Chen, et al., "Identifying MMORPG bots: A traffic analysis approach" Proceedings of the 2006 ACM SIGCHI international conference on Advances in computer entertainment technology, June 2006, pp. 1-13	☐
	18	Chew, et al., "Image Recognition CAPTCHAs" In Zhang, K., Zheng, Y. (eds) Information Security, ISC 2004, Lecture Notes in Computer Science, Vol. 3225, Springer, Berlin, Heidelberg, 2004, 19 pgs	☐
	19	Chow, et al.,"Making CAPTCHAs clickable", Proceedings of the 9th workshop on Mobile computing systems and applications, 2008, pp. 91-94	☐
	20	Click Tracking Software - TrafficSentry.com, "Click Hawk Click Fraud Detection Software", captured January 27, 2022 on The Wayback Machine, retrieved online November 18, 2022 from <<<https://web.archive.org/web/20220127223730/http://www.clickhawk.com/>>>	☐
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	22	Codeen: "A Content Distribution Network for PlanetLab", 04/27/2022, <<https://web.archive.org/web/20070210195838/https://codeen.cs.princeton.edu;80>>, PlanetLab	☐
	23	Datta, et al., "Imagination: a robust image-based CAPTCHA generation system" In Proceedings of the 13th annual ACM international conference on Multimedia, 2005, pp. 331-334	☐

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /J.L/

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	24	"Do you advertise on any of the pay-per-click networks or search engines?", retrieved on 04/29/2022, <<https://web.archive.org/web/20070116074721/http:l /clickhawk.com:80/faq.htm>>, Traffic Sentry, 2007	☐
	25	RPX Insight, "Dossier: Human Differential Intelligence, LLC", RPX Corporation, August 7, 2020, pp. 1-24	☐
	26	Edwards, et al.,"The JavaScript Anthology: 101 Essential Tips, Tricks & Hacks.", Sitepoint, 2006, 626 pgs	☐
	27	Elson, et al,. "Asirra: A CAPTCHA that exploits interest-aligned manual image categorization", CCS 7, Oct 29-Nov 2, 2007 pp. 366-374	☐
	28	Nobots LLC v Google LLC, "GOOGLE'S PRELIMINARY INVALIDITY AND SUBJECT-MATTER INELIGIBILITY CONTENTIONS, Exhibit A-1", Case No. 6:21-cv-1290-ADA, IN THE UNITED STATES DISTRICT COURT FOR THE WESTERN DISTRICT OF TEXAS WACO DIVISION, Ex. A-1 - 008 Claim Chart for Willner, pp.1-152	☐
	29	Nobots LLC v Google LLC, "GOOGLE'S PRELIMINARY INVALIDITY AND SUBJECT-MATTER INELIGIBILITY CONTENTIONS, Exhibit A-10", Case No. 6:21-cv-1290-ADA, IN THE UNITED STATES DISTRICT COURT FOR THE WESTERN DISTRICT OF TEXAS WACO DIVISION, Ex. A-10 - 008 Claim Chart for Tanzer, pp. 1-211	☐
	30	Nobots LLC v Google LLC, "GOOGLE'S PRELIMINARY INVALIDITY AND SUBJECT-MATTER INELIGIBILITY CONTENTIONS, Exhibit A-11-008", Case No. 6:21-cv-1290-ADA, IN THE UNITED STATES DISTRICT COURT FOR THE WESTERN DISTRICT OF TEXAS WACO DIVISION, Ex. A-11 - 008 Claim Chart for Eldon I, pp. 1-155	☐
	31	Nobots LLC v Google LLC, "GOOGLE'S PRELIMINARY INVALIDITY AND SUBJECT-MATTER INELIGIBILITY CONTENTIONS, Exhibit A-12-008", Case No. 6:21-cv-1290-ADA, IN THE UNITED STATES DISTRICT COURT FOR THE WESTERN DISTRICT OF TEXAS WACO DIVISION, Ex. A-12 - 008 Claim Chart with Obviousness Combinations, pp. 1-590	☐
	32	Nobots LLC v Google LLC, "GOOGLE'S PRELIMINARY INVALIDITY AND SUBJECT-MATTER INELIGIBILITY CONTENTIONS, Exhibit A-2-008", Case No. 6:21-cv-1290-ADA, IN THE UNITED STATES DISTRICT COURT FOR THE WESTERN DISTRICT OF TEXAS WACO DIVISION, Ex. A-2 - 008 Claim Chart for Ge, pp. 1-171	☐
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INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)		
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	Filing Date	2022-08-05
	First Named Inventor	Timothy P. Heikell
	Art Unit	2434
	Examiner Name	
	Attorney Docket Number	N106-0002USC4

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Examiner Signature	/JACOB LIPMAN/	Date Considered	02/22/2023

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	Attorney Docket Number	N106-0002USC4

CERTIFICATION STATEMENT

Please see 37 CFR 1.97 and 1.98 to make the appropriate selection(s):

☐ That each item of information contained in the information disclosure statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of the information disclosure statement.

OR

☐ That no item of information contained in the information disclosure statement was cited in a communication from a foreign patent office in a counterpart foreign application, and, to the knowledge of the person signing the certification after making reasonable inquiry, no item of information contained in the information disclosure statement was known to any individual designated in 37 CFR 1.56(c) more than three months prior to the filing of the information disclosure statement.

☐ See attached certification statement.

☒ Fee set forth in 37 CFR 1.17 (p) has been submitted herewith.

☐ None

SIGNATURE

A signature of the applicant or representative is required in accordance with CFR 1.33, 10.18. Please see CFR 1.4(d) for the form of the signature.

Signature	/Bea Koempel-Thomas 58213/	Date (YYYY-MM-DD)	2022-11-22
Name/Print	Beatrice L. Koempel-Thomas	Registration Number	58,213

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 1 hour to complete, including gathering, preparing and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

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CONFIRMATION NO. 4844

SERIAL NUMBER	FILING or 371(c) DATE RULE	CLASS	GROUP ART UNIT	ATTORNEY DOCKET NO.
17/882,082	08/05/2022	706	2434	N106-0002USC4

APPLICANTS
Nobots LLC, Renton, WA;

INVENTORS
Timothy P. Heikell, Renton, WA;

**** CONTINUING DATA ***************************
This application is a CON of 16/578,823 09/23/2019
which is a DIV of 15/457,099 03/13/2017 PAT 10423885
which is a CON of 12/313,502 11/19/2008 PAT 9595008
which claims benefit of 61/003,743 11/19/2007

**** FOREIGN APPLICATIONS ***************************

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Foreign Priority claimed ❑ Yes ☑ No 35 USC 119(a-d) conditions met ❑ Yes ☑ No Verified and Acknowledged /JACOB LIPMAN/ Examiner's Signature	❑ Met after Allowance Initials	STATE OR COUNTRY	SHEETS DRAWINGS	TOTAL CLAIMS	INDEPENDENT CLAIMS
		WA	4	30	3

ADDRESS

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TITLE

Systems, Methods and Apparatus for Evaluating Status of Computing Device User

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4. A Hamilton-Jacobi Reachability-Based Framework for Predicting and Analyzing Human Motion for Safe Planning

Real-world autonomous systems often employ probabilistic predictive models of human behavior during planning to reason about their future motion. Since accurately modeling human behavior a priori is challenging, such models are often parameterized, enabling the robot to adapt predictions based on...

191013969 | arXiv.org | 2019-10-29 | 5

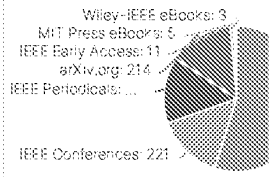
5. Sensing, Understanding, and Shaping Social Behavior

The ability to understand social systems through the aid of computational tools is central to the emerging field of computational social systems. Such understanding can answer epistemological questions on human behavior in a data-driven manner, and provide prescriptive guidelines for persuading...

Result 1

Relevance

Collections



Publication Date

More V

UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
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NOTICE OF ALLOWANCE AND FEE(S) DUE

29150 7590 03/08/2023

LEE & HAYES, P.C.
601 W. RIVERSIDE AVENUE
SUITE 1400
SPOKANE, WA 99201

EXAMINER
LIPMAN, JACOB

ART UNIT	PAPER NUMBER
2434	

DATE MAILED: 03/08/2023

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
17/882,082	08/05/2022	Timothy P. Heikell	N106-0002USC4	4844

TITLE OF INVENTION: Systems, Methods and Apparatus for Evaluating Status of Computing Device User

APPLN. TYPE	ENTITY STATUS	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	SMALL	$480	$0.00	$0.00	$480	06/08/2023

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

HOW TO REPLY TO THIS NOTICE:

I. Review the ENTITY STATUS shown above. If the ENTITY STATUS is shown as SMALL or MICRO, verify whether entitlement to that entity status still applies.

If the ENTITY STATUS is the same as shown above, pay the TOTAL FEE(S) DUE shown above.

If the ENTITY STATUS is changed from that shown above, on PART B - FEE(S) TRANSMITTAL, complete section number 5 titled "Change in Entity Status (from status indicated above)".

For purposes of this notice, small entity fees are 40% the amount of undiscounted fees, and micro entity fees are 20% the amount of undiscounted fees.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Maintenance fees are due in utility patents issuing on applications filed on or after Dec. 12, 1980. It is patentee's responsibility to ensure timely payment of maintenance fees when due. More information is available at www.uspto.gov/PatentMaintenanceFees.

PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), by mail or fax, or via EFS-Web.

By mail, send to: Mail Stop ISSUE FEE
Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450

By fax, send to: (571)-273-2885

INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee notifications.

CURRENT CORRESPONDENCE ADDRESS (Note: Use Block 1 for any change of address)

29150 7590 03/08/2023

LEE & HAYES, P.C.
601 W. RIVERSIDE AVENUE
SUITE 1400
SPOKANE, WA 99201

Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission.

Certificate of Mailing or Transmission

I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUE FEE address above, or being transmitted to the USPTO via EFS-Web or by facsimile to (571) 273-2885, on the date below.

(Typed or printed name)
(Signature)
(Date)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
17/882,082	08/05/2022	Timothy P. Heikell	N106-0002USC4	4844

TITLE OF INVENTION: Systems, Methods and Apparatus for Evaluating Status of Computing Device User

APPLN. TYPE	ENTITY STATUS	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	SMALL	$480	$0.00	$0.00	$480	06/08/2023

EXAMINER	ART UNIT	CLASS-SUBCLASS
LIPMAN, JACOB	2434	706-052000

1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).

❑ Change of correspondence address (or Change of Correspondence Address form PTO/AIA/122 or PTO/SB/122) attached.

❑ "Fee Address" indication (or "Fee Address" Indication form PTO/AIA/47 or PTO/SB/47; Rev 03-02 or more recent) attached. **Use of a Customer Number is required.**

2. For printing on the patent front page, list
(1) The names of up to 3 registered patent attorneys or agents OR, alternatively,
(2) The name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed.

1_____
2_____
3_____

3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)

PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. If an assignee is identified below, the document must have been previously recorded, or filed for recordation, as set forth in 37 CFR 3.11 and 37 CFR 3.81(a). Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE (B) RESIDENCE: (CITY and STATE OR COUNTRY)

Please check the appropriate assignee category or categories (will not be printed on the patent) : ❑ Individual ❑ Corporation or other private group entity ❑ Government

4a. Fees submitted: ❑Issue Fee ❑Publication Fee (if required) ❑Advance Order - # of Copies _____

4b. Method of Payment: *(Please first reapply any previously paid fee shown above)*

❑ Electronic Payment via EFS-Web ❑ Enclosed check ❑ Non-electronic payment by credit card (Attach form PTO-2038)

❑ The Director is hereby authorized to charge the required fee(s), any deficiency, or credit any overpayment to Deposit Account No. _____

5. **Change in Entity Status** (from status indicated above)

❑ Applicant certifying micro entity status. See 37 CFR 1.29

❑ Applicant asserting small entity status. See 37 CFR 1.27

❑ Applicant changing to regular undiscounted fee status.

NOTE: Absent a valid certification of Micro Entity Status (see forms PTO/SB/15A and 15B), issue fee payment in the micro entity amount will not be accepted at the risk of application abandonment.
NOTE: If the application was previously under micro entity status, checking this box will be taken to be a notification of loss of entitlement to micro entity status.
NOTE: Checking this box will be taken to be a notification of loss of entitlement to small or micro entity status, as applicable.

NOTE: This form must be signed in accordance with 37 CFR 1.31 and 1.33. See 37 CFR 1.4 for signature requirements and certifications.

Authorized Signature _____ Date _____

Typed or printed name _____ Registration No. _____

UNITED STATES PATENT AND TRADEMARK OFFICE

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United States Patent and Trademark Office
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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
17/882,082	08/05/2022	Timothy P. Heikell	N106-0002USC4	4844

29150 7590 03/08/2023

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601 W. RIVERSIDE AVENUE
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SPOKANE, WA 99201

EXAMINER	
LIPMAN, JACOB	
ART UNIT	PAPER NUMBER
2434	

DATE MAILED: 03/08/2023

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)
(Applications filed on or after May 29, 2000)

The Office has discontinued providing a Patent Term Adjustment (PTA) calculation with the Notice of Allowance.

Section 1(h)(2) of the AIA Technical Corrections Act amended 35 U.S.C. 154(b)(3)(B)(i) to eliminate the requirement that the Office provide a patent term adjustment determination with the notice of allowance. See Revisions to Patent Term Adjustment, 78 Fed. Reg. 19416, 19417 (Apr. 1, 2013). Therefore, the Office is no longer providing an initial patent term adjustment determination with the notice of allowance. The Office will continue to provide a patent term adjustment determination with the Issue Notification Letter that is mailed to applicant approximately three weeks prior to the issue date of the patent, and will include the patent term adjustment on the patent. Any request for reconsideration of the patent term adjustment determination (or reinstatement of patent term adjustment) should follow the process outlined in 37 CFR 1.705.

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

OMB Clearance and PRA Burden Statement for PTOL-85 Part B

The Paperwork Reduction Act (PRA) of 1995 requires Federal agencies to obtain Office of Management and Budget approval before requesting most types of information from the public. When OMB approves an agency request to collect information from the public, OMB (i) provides a valid OMB Control Number and expiration date for the agency to display on the instrument that will be used to collect the information and (ii) requires the agency to inform the public about the OMB Control Number's legal significance in accordance with 5 CFR 1320.5(b).

The information collected by PTOL-85 Part B is required by 37 CFR 1.311. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 30 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, Virginia 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450. Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

Privacy Act Statement

The Privacy Act of 1974 (P.L. 93-579) requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b)(2); (2) furnishing of the information solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent application or patent. If you do not furnish the requested information, the U.S. Patent and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abandonment of the application or expiration of the patent.

The information provided by you in this form will be subject to the following routine uses:

1. The information on this form will be treated confidentially to the extent allowed under the Freedom of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C 552a). Records from this system of records may be disclosed to the Department of Justice to determine whether disclosure of these records is required by the Freedom of Information Act.
2. A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.
3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.
4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).
5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.
6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).
7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (i.e., GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.
8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspection or an issued patent.
9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

Notice of Allowability	Application No. 17/882,082	Applicant(s) Heikell, Timothy P.	
	Examiner JACOB LIPMAN	Art Unit 2434	AIA (FITF) Status No

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☑ This communication is responsive to arguments filed 30 January 2023 and the TD filed 22 February 2023.
   ☐ A declaration(s)/affidavit(s) under **37 CFR 1.130(b)** was/were filed on _____.

2. ☐ An election was made by the applicant in response to a restriction requirement set forth during the interview on _____; the restriction requirement and election have been incorporated into this action.

3. ☑ The allowed claim(s) is/are 1-30 . As a result of the allowed claim(s), you may be eligible to benefit from the **Patent Prosecution Highway** program at a participating intellectual property office for the corresponding application. For more information, please see **http://www.uspto.gov/patents/init_events/pph/index.jsp** or send an inquiry to **PPHfeedback@uspto.gov.**

4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

   Certified copies:

   a) ☐ All b) ☐ Some* c) ☐ None of the:

   1. ☐ Certified copies of the priority documents have been received.
   2. ☐ Certified copies of the priority documents have been received in Application No. _____ .
   3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

   * Certified copies not received: _____ .

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
   ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____ .

   Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☑ Notice of References Cited (PTO-892)
2. ☑ Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date 11/22/22.
3. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material _____.
4. ☑ Interview Summary (PTO-413), Paper No./Mail Date. 2/21/23.
5. ☐ Examiner's Amendment/Comment
6. ☑ Examiner's Statement of Reasons for Allowance
7. ☐ Other _____.

/JACOB LIPMAN/
Primary Examiner, Art Unit 2434

DETAILED ACTION

Notice of Pre-AIA or AIA Status

1. The present application is being examined under the pre-AIA first to invent provisions.

Allowable Subject Matter

2. Claims 1-30 are allowed.

3. The following is an examiner's statement of reasons for allowance:

4. The examiner has reviewed the arguments filed 30 January 2023 and finds them persuasive. Specifically, the examiner agrees that the combination of the cited prior art would not make it obvious for one of ordinary skill in the art, prior to the instant effective filing date, to "perform a first analysis comprising analyzing at least some of the received active data and at least some of the received passive data in conjunction with model data based on human interactions from a prior session with the same website", and then afterwards challenge the user with a CAPTCHA without the benefit of hindsight.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

References Cited

5. Gusler et al., USPN 2008/0263636, discloses a method of determining a likelihood that a user is actually a bot (0025), but does not disclose using collected passive data to make the determination.

Conclusion

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to JACOB LIPMAN whose telephone number is (571)272-3837. The examiner can normally be reached 5:30AM-6:00PM.

Examiner interviews are available via telephone, in-person, and video conferencing using a USPTO supplied web-based collaboration tool. To schedule an interview, applicant is encouraged to use the USPTO Automated Interview Request (AIR) at http://www.uspto.gov/interviewpractice.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kambiz Zand can be reached on 571-272-3811. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of published or unpublished applications may be obtained from Patent Center. Unpublished application information in Patent Center is available to registered users. To file and manage patent submissions in Patent Center, visit: https://patentcenter.uspto.gov. Visit https://www.uspto.gov/patents/apply/patent-center for more information about Patent Center and https://www.uspto.gov/patents/docx for information about filing in DOCX format. For additional questions, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/JACOB LIPMAN/
Primary Examiner, Art Unit 2434

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE (USPTO)	
Application Serial Number	17/882,082
Confirmation Number	4844
Filing Date	August 05, 2022
Title of Application	Systems, Methods and Apparatus for Evaluating Status of Computing Device User
First Named Inventor	Timothy P. Heikell
Applicant	Nobots LLC
Group Art Unit	2434
Examiner	Jacob Lipman
Attorney Docket Number	N106-0002USC4

To: Commissioner for Patents
PO Box 1450
Alexandria, VA 22313-1450

From: Beatrice L. Koempel-Thomas (Tel. 509-324-9256; Fax 509-323-8979)
Lee & Hayes, P.C.
601 W. Riverside Ave, Suite 1400
Spokane, WA 99201

Customer Number 29150

Statement of the Substance of the Interview

Applicant's attorney believes that no fees are due with this filing; however, Applicant's attorney hereby authorizes the Commissioner to charge any deficiency of fees and credit any overpayments to Deposit Account Number 12-0769.

Remarks begin on page 2 of this document.

Remarks

Applicant would sincerely like to thank Examiner Lipman for contacting Applicant's attorney, Beatrice L. Koempel-Thomas by phone on February 21, 2023. During the call the Examiner requested a terminal disclaimer be filed for allowance of the application.

Without conceding that a terminal disclaimer was necessary, Applicant's attorney agreed to review the matter and ultimately filed a terminal disclaimer as requested by the Examiner. Applicant thanks the Examiner for the courtesy extended via the interview to expedite allowance of this patent application.

Conclusion

If any issues remain that would prevent issuance of this application, **Applicant requests that the Examiner contact the undersigned representative before issuing a subsequent Office Action or Communication.**

Respectfully Submitted,

Lee & Hayes, P.C.
Representatives for Applicant

By: /Bea Koempel-Thomas 58213/ Dated: April 7, 2023

Beatrice L. Koempel-Thomas
(bea@leehayes.com; 509-944-4759)
Registration No. 58213

UNITED STATES
PATENT AND TRADEMARK OFFICE

P.O. Box 1450
Alexandria, VA 22313 - 1450
www.uspto.gov

ELECTRONIC ACKNOWLEDGEMENT RECEIPT

APPLICATION #	RECEIPT DATE / TIME	ATTORNEY DOCKET #
17/882,082	**04/07/2023 06:14:29 PM ET**	**N106-0002USC4**

Title of Invention

Systems, Methods and Apparatus for Evaluating Status of Computing Device User

Application Information

APPLICATION TYPE	Utility - Nonprovisional Application under 35 USC 111(a)	PATENT #	-
CONFIRMATION #	4844	FILED BY	Laura Bishop
PATENT CENTER #	61889089	FILING DATE	08/05/2022
CUSTOMER #	29150	FIRST NAMED INVENTOR	Timothy P. Heikell
CORRESPONDENCE ADDRESS	-	AUTHORIZED BY	Beatrice Koempel-Thomas

Documents

TOTAL DOCUMENTS: 1

DOCUMENT	PAGES	DESCRIPTION	SIZE (KB)
Statement of Substance of Interview.PDF	2	Applicant summary of interview with examiner	31 KB

Digest

DOCUMENT	MESSAGE DIGEST(SHA-512)
Statement of Substance of Interview.PDF	D3A4F295636FD8B7AADFCE890D8B608B892CD2D213613D42CF66179E630BE7EA363511A9B65C974DD9B9291F3C6B9D673C6198A6AC7D61FA748D0960312C3F89

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized

by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application

National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

PTO/SB/06 (09-11)
Approved for use through 1/31/2014. OMB 0651-0032
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

PATENT APPLICATION FEE DETERMINATION RECORD Substitute for Form PTO-875	Application or Docket Number 17/882,082	Filing Date 08/05/2022	☐ To be Mailed

ENTITY: ☐ LARGE ☑ SMALL ☐ MICRO

APPLICATION AS FILED - PART I

FOR	(Column 1) NUMBER FILED	(Column 2) NUMBER EXTRA		RATE ($)	FEE ($)
☐ BASIC FEE (37 CFR 1.16(a), (b), or (c))	N/A	N/A		N/A	
☐ SEARCH FEE (37 CFR 1.16(k), (i), or (m))	N/A	N/A		N/A	
☐ EXAMINATION FEE (37 CFR 1.16(o), (p), or (q))	N/A	N/A		N/A	
TOTAL CLAIMS (37 CFR 1.16(i))	minus 20 =	*		x $50 =	
INDEPENDENT CLAIMS (37 CFR 1.16(h))	minus 3 =	*		x $240 =	
☐ APPLICATION SIZE FEE (37 CFR 1.16(s))	If the specification and drawings exceed 100 sheets of paper, the application size fee due is $310 ($155 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).				
☐ MULTIPLE DEPENDENT CLAIM PRESENT (37 CFR 1.16(j))					
* If the difference in column 1 is less than zero, enter "0" in column 2.				TOTAL	

APPLICATION AS AMENDED - PART II

		(Column 1)		(Column 2)	(Column 3)			
AMENDMENT	06/07/2023	CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA		RATE ($)	ADDITIONAL FEE ($)
	Total (37 CFR 1.16(i))	* 30	Minus	** 30	= 0		x $40 =	0
	Independent (37 CFR 1.16(h))	* 3	Minus	*** 3	= 0		x $192 =	0
	☐ Application Size Fee (37 CFR 1.16(s))							
	☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))							
							TOTAL ADD'L FEE	0

		(Column 1)		(Column 2)	(Column 3)			
AMENDMENT		CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA		RATE ($)	ADDITIONAL FEE ($)
	Total (37 CFR 1.16(i))	*	Minus	**	=		x $0 =	
	Independent (37 CFR 1.16(h))	*	Minus	***	=		x $0 =	
	☐ Application Size Fee (37 CFR 1.16(s))							
	☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))							
							TOTAL ADD'L FEE	

* If the entry in column 1 is less than the entry in column 2, write "0" in column 3.	LIE
** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20".	/LAMONT N MCLAUCHLIN/
*** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, enter "3".	
The "Highest Number Previously Paid For" (Total or Independent) is the highest number found in the appropriate box in column 1.	

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If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

PTO/SB/08a (01-22)
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INFORMATION DISCLOSURE STATEMENT BY APPLICANT
(Not for submission under 37 CFR 1.99)

Application Number	17882082
Filing Date	2022-08-05
First Named Inventor	Timothy P. Heikell
Art Unit	2434
Examiner Name	Jacob Lipman
Attorney Docket Number	N106-0002USC4

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Examiner Initial*	Cite No	Patent Number	Kind Code[1]	Issue Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear
	1	6195698	B1	2001-02-27	Mark D. Lillibridge, et al.	
	2	7373524	B2	2008-05-13	David Lee Motsinger, et al.	
	3	7516220	B1	2009-04-07	Steven Joseph Stiert	
	4	7606915	B1	2009-10-20	Julian D. Calinov, et al.	
	5	7657849	B2	2010-02-02	Imran Chaudhri, et al.	
	6	7721107	B2	2010-05-18	Philippe Golle, et al.	
	7	7785180	B1	2010-08-31	Luis Von Ahn, et al.	
	8	7877707	B2	2011-01-25	Wayne Carl Westerman, et al.	

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	Attorney Docket Number	N106-0002USC4

	9	7917491	B1	2011-03-29	Michael Sack	
	10	7917508	B1	2011-03-29	Shumeet Baluja, et al.	
	11	7980953	B2	2011-07-19	Luis von Ahn Arellano	
	12	8032483	B1	2011-10-04	Taher Haveliwala, et al.	
	13	8214891	B2	2012-07-03	Lisa Anne Seacat	
	14	8353764	B2	2013-01-15	David C. Williams, et al.	
	15	8510795	B1	2013-08-13	Ullas Gargi	
	16	8601538	B2	2013-12-03	Pernilla Qvarfordt, et al.	
	17	8682718	B2	2014-03-25	Richard Kazimierz Zwicky	
	18	8684839	B2	2014-04-01	Harold E. Mattice, et al.	
	19	8793135	B2	2014-07-29	Steven Hart Lewis, et al.	

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	1	20050008148	A1	2005-01-13	Dov Jacobson	
	2	20050015257	A1	2005-01-20	Alexandre Bronstein	
	3	20050066201	A1	2005-03-24	Joshua Goodman, et al.	
	4	20060136294	A1	2006-06-22	John Linden, et al.	
	5	20070016689	A1	2007-01-18	Michael Birch	
	6	20070018393	A1	2007-01-25	Janice Ritter, et al.	
	7	20070192849	A1	2007-08-16	Philippe Golle, et al.	
	8	20070201745	A1	2007-08-30	James Wang, et al.	
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	Attorney Docket Number	N106-0002USC4

	10	20070250920	A1	2007-10-25	Jeffrey Dean Lindsay	
	11	20070259716	A1	2007-11-08	Harold Mattice, et al.	
	12	20070300077	A1	2007-12-27	Seshadri Mani, et al.	
	13	20080040653	A1	2008-02-14	Christopher Levine	
	14	20080049969	A1	2008-02-28	Jason David Koziol	
	15	20080066014	A1	2008-03-13	Deapesh Misra	
	16	20080091453	A1	2008-04-17	Timothy Meehan, et al.	
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	18	20080162227	A1	2008-07-03	Bjorn Markus Jakobsson, et al.	
	19	20080281606	A1	2008-11-13	Brendan J. Kitts, et al.	
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	21	20090055193	A1	2009-02-26	Ariel Maislos, et al.	
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	23	20090113294	A1	2009-04-30	Mehul Sanghavi, et al.	
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	25	20090241174	A1	2009-09-24	Guru Rajan, et al.	
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	27	20090307028	A1	2009-12-10	Per Flemming Eldon, et al.	
	28	20090320123	A1	2009-12-24	Yang Yu, et al.	
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	30	20110029902	A1	2011-02-03	Christopher Everett Bailey	
	31	20110113388	A1	2011-05-12	Ori Eisen, et al.	

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Examiner Initials*	Cite No	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc), date, pages(s), volume-issue number(s), publisher, city and/or country where published.	T[5]
	1	Al-Qayed, et al., "Secure Centralised Mobile and Web-based control system USING GPRS with J2ME", ICECS2003 Sharjah U.A.E 2003, 5 pgs	
	2	Baird & Lopresti, Human Interactive Proofs: Second International Workshop, HIP 2005, Bethlehem, PA, USA, Proceedings, Vol. 3517, May 19-20, 2005, Springer	
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	4	Chu, et al., "A Hybrid Training Mechanism for Applying Neural Networks to Web-based Applications," 2004 IEEE International Conference on Systems, Man and Cybernetics (IEEE Cat. No. 04CH37583), Vol. 4, IEEE, 2004, pp. 3543-3545	
	5	Microsoft Corporation, Online Video for "Introducing Microsoft Fingerprint Reader," Captured January 11, 2005, on The Internet Archive Wayback Machine at <<https://web.archive.org/web/20050111104104/http://www.microsoft.com/hardware/mouseandkeyboard/features/docs/>>, 1 pg	
	6	Rusu, et al., "Visual CAPTCHA with handwritten image analysis", International Workshop on Human Interactive Proofs, Springer, Berlin, Heidelberg, 2005, pp. 42-52	

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	First Named Inventor	Timothy P. Heikell
	Art Unit	2434
	Examiner Name	Jacob Lipman
	Attorney Docket Number	N106-0002USC4

	7	Thau, "The Book of JavaScript, 2nd Edition: A Practical Guide to Interactive Web Pages", No Starch Press, 2006, Part 1, 120 pgs	
	8	Thau, "The Book of JavaScript, 2nd Edition: A Practical Guide to Interactive Web Pages", No Starch Press, 2006, Part 2, 120 pgs	
	9	Thau, "The Book of JavaScript, 2nd Edition: A Practical Guide to Interactive Web Pages", No Starch Press, 2006, Part 3, 120 pgs	
	10	Thau, "The Book of JavaScript, 2nd Edition: A Practical Guide to Interactive Web Pages", No Starch Press, 2006, Part 4, 169 pgs	
	11	von Ahn, et al., "Telling Humans and Computers Apart (Automatically) or How Lazy Cryptographers Do AI," Computer Science Department, Carnegie Mellon University, 2002, 11 pgs	
	12	Yan, Jeff, "Bot, Cyborg and Automated Turing Test: (Or Putting the Humanoid in the Protocol)," Security Protocols: 14th International Workshop, Cambridge, UK, 2006, Revised Selected Papers 14, Springer, 2009, 15 pgs	

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Examiner Signature		Date Considered	

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[1] See Kind Codes of USPTO Patent Documents at www.USPTO.GOV or MPEP 901.04. [2] Enter office that issued the document, by the two-letter code (WIPO Standard ST.3). [3] For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. [4] Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. [5] Applicant is to place a check mark here if English language translation is attached.

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)		
	Application Number	17882082
	Filing Date	2022-08-05
	First Named Inventor	Timothy P. Heikell
	Art Unit	2434
	Examiner Name	Jacob Lipman
	Attorney Docket Number	N106-0002USC4

CERTIFICATION STATEMENT

Please see 37 CFR 1.97 and 1.98 to make the appropriate selection(s):

That each item of information contained in the information disclosure statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of the information disclosure statement. See 37 CFR 1.97(e)(1).

OR

☐ That no item of information contained in the information disclosure statement was cited in a communication from a foreign patent office in a counterpart foreign application, and, to the knowledge of the person signing the certification after making reasonable inquiry, no item of information contained in the information disclosure statement was known to any individual designated in 37 CFR 1.56(c) more than three months prior to the filing of the information disclosure statement. See 37 CFR 1.97(e)(2).

See attached certification statement.

The fee set forth in 37 CFR 1.17 (p) has been submitted herewith.

☒ A certification statement is not submitted herewith.

SIGNATURE

A signature of the applicant or representative is required in accordance with CFR 1.33, 10.18. Please see CFR 1.4(d) for the form of the signature.

Signature	/Bea Koempel-Thomas 58213/	Date (YYYY-MM-DD)	2023-06-07
Name/Print	Beatrice L. Koempel-Thomas	Registration Number	58213

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 1 hour to complete, including gathering, preparing and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

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2. A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.

3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.

4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).

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6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).

7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (i.e., GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.

8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspections or an issued patent.

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ELECTRONIC PAYMENT RECEIPT

APPLICATION #	RECEIPT DATE / TIME	ATTORNEY DOCKET #
17/882,082	06/07/2023 06:13:22 PM ET	N106-0002USC4

Title of Invention

Systems, Methods and Apparatus for Evaluating Status of Computing Device User

Application Information

APPLICATION TYPE	Utility - Nonprovisional Application under 35 USC 111(a)	PATENT #	-
CONFIRMATION #	4844	FILED BY	Laura Bishop
PATENT CENTER #	62227768	AUTHORIZED BY	Beatrice Koempel-Thomas
CUSTOMER #	29150	FILING DATE	08/05/2022
CORRESPONDENCE ADDRESS	-	FIRST NAMED INVENTOR	Timothy P. Heikell

Payment Information

PAYMENT METHOD	PAYMENT TRANSACTION ID	PAYMENT AUTHORIZED BY
CARD / 2040	E202367I14578558	Laura Bishop

FEE CODE	DESCRIPTION	ITEM PRICE($)	QUANTITY	ITEM TOTAL($)
2801	REQUEST FOR CONTINUED EXAMINATION (RCE) - 1ST REQUEST (SEE 37 CFR 1.114)	544.00	1	544.00
			TOTAL AMOUNT:	$544.00

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application

National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

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Doc code: RCEX
Doc description: Request for Continued Examination (RCE)

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REQUEST FOR CONTINUED EXAMINATION(RCE)TRANSMITTAL
(Submitted Only via EFS-Web)

Application Number	17/882,082	Filing Date	8/5/2022	Docket Number (if applicable)	N106-0002USC4	Art Unit	2434
First Named Inventor	Timothy P. Heikell			Examiner Name	Jacob Lipman		

This is a Request for Continued Examination (RCE) under 37 CFR 1.114 of the above-identified application.
Request for Continued Examination (RCE) practice under 37 CFR 1.114 does not apply to any utility or plant application filed prior to June 8, 1995, or to any design application. The Instruction Sheet for this form is located at WWW.USPTO.GOV

SUBMISSION REQUIRED UNDER 37 CFR 1.114

Note: If the RCE is proper, any previously filed unentered amendments and amendments enclosed with the RCE will be entered in the order in which they were filed unless applicant instructs otherwise. If applicant does not wish to have any previously filed unentered amendment(s) entered, applicant must request non-entry of such amendment(s).

☐ Previously submitted. If a final Office action is outstanding, any amendments filed after the final Office action may be considered as a submission even if this box is not checked.

☐ Consider the arguments in the Appeal Brief or Reply Brief previously filed on _____

☐ Other _____

☒ Enclosed

☐ Amendment/Reply

☒ Information Disclosure Statement (IDS)

☐ Affidavit(s)/ Declaration(s)

☒ Other Information Disclosure Statement Transmittal Letter

MISCELLANEOUS

☐ Suspension of action on the above-identified application is requested under 37 CFR 1.103(c) for a period of months _____ (Period of suspension shall not exceed 3 months; Fee under 37 CFR 1.17(i) required)

☐ Other _____

FEES

☒ **The RCE fee under 37 CFR 1.17(e) is required by 37 CFR 1.114 when the RCE is filed.**
The Director is hereby authorized to charge any underpayment of fees, or credit any overpayments, to Deposit Account No 120769

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT REQUIRED

☒ Patent Practitioner Signature

Applicant Signature

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Signature of Registered U.S. Patent Practitioner			
Signature	/Bea Koempel-Thomas 58213/	Date (YYYY-MM-DD)	2023-06-07
Name	Beatrice L. Koempel-Thomas	Registration Number	58213

This collection of information is required by 37 CFR 1.114. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450.

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6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).

7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (i.e., GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.

8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspections or an issued patent.

9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

UNITED STATES
PATENT AND TRADEMARK OFFICE

P.O. Box 1450
Alexandria, VA 22313 - 1450
www.uspto.gov

ELECTRONIC ACKNOWLEDGEMENT RECEIPT

APPLICATION #	RECEIPT DATE / TIME	ATTORNEY DOCKET #
17/882,082	**06/07/2023 06:13:22 PM ET**	**N106-0002USC4**

Title of Invention

Systems, Methods and Apparatus for Evaluating Status of Computing Device User

Application Information

APPLICATION TYPE	Utility - Nonprovisional Application under 35 USC 111(a)	PATENT #	-
CONFIRMATION #	4844	FILED BY	Laura Bishop
PATENT CENTER #	62227768	FILING DATE	08/05/2022
CUSTOMER #	29150	FIRST NAMED INVENTOR	Timothy P. Heikell
CORRESPONDENCE ADDRESS	-	AUTHORIZED BY	Beatrice Koempel-Thomas

Documents

TOTAL DOCUMENTS: 3

DOCUMENT	PAGES	DESCRIPTION	SIZE (KB)
IDS Transmittal.PDF	1	Transmittal Letter	18 KB
Information Disclosure Statement.PDF	9	Information Disclosure Statement (IDS) Form (SB08)	1209 KB
Request for Continued Examination.PDF	3	Request for Continued Examination (RCE)	1292 KB

Digest

DOCUMENT	MESSAGE DIGEST(SHA-512)

IDS Transmittal.PDF	B3454D98B15B18505A87C955C57356AC88DA7A621D56543A28 1853313FE6F8BCB8DAA99A0E0AA0964AF7C1A68245D1D89E8 878A2D7F65C543C21C7119097AEAB
Information Disclosure Statement.PDF	5C276FB1949A89FE133DC570C61B4B290F99460AC3FC0827B DCD2418144E035D934023F1C22635A9AD2278481D9A202F397 C5D97780F9C721F69E5D68F7CAC83
Request for Continued Examination.PDF	CE37DE124D6A6B0A45D04AB309C38F7219D9A9301EFAEB55 C16121D8D0D1B392E73D06A7C589F94CA2B63586C073F097B DA7D850BB95E068E7DE9274087103AF

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application

National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Serial No. 17/882,082
Filing Date ..... August 5, 2022
Confirmation No. 4844
First Named Inventor ..... Timothy P. Heikell
Applicant ..... Nobots LLC
Group Art Unit 2434
Examiner ..... Jacob Lipman
Attorney's Docket No. N106-0002USC4
Title: Systems, Methods and Apparatus for Evaluating Status of Computing Device User

INFORMATION DISCLOSURE STATEMENT

References – See Attached Form PTO/SB/08

The citations listed are submitted in compliance with the duty of disclosure defined in 37 CFR §1.56. Copies of the cited references were cited or submitted with the priority application, which is U.S. Patent Application No. 16/578,823, and are therefore not submitted herewith pursuant to 37 CFR §1.98(d).

The Examiner is requested to make these citations of official record in this application.

The Commissioner is hereby authorized to charge payment of fees or credit overpayments to Deposit Account No. 12-0769 as set forth in 37 CFR §1.17(p).

Respectfully Submitted,

Dated: June 7, 2023

By: /Bea Koempel-Thomas 58213/
Beatrice L. Koempel-Thomas
Reg. No. 58213

UNITED STATES
PATENT AND TRADEMARK OFFICE

P.O. Box 1450
Alexandria, VA 22313 - 1450
www.uspto.gov

ELECTRONIC ACKNOWLEDGEMENT RECEIPT

APPLICATION #	RECEIPT DATE / TIME	ATTORNEY DOCKET #
17/882,082	**06/21/2023 08:07:16 PM ET**	**N106-0002USC4**

Title of Invention

Systems, Methods and Apparatus for Evaluating Status of Computing Device User

Application Information

APPLICATION TYPE	Utility - Nonprovisional Application under 35 USC 111(a)	PATENT #	-
CONFIRMATION #	4844	FILED BY	Laura Bishop
PATENT CENTER #	62314117	FILING DATE	08/05/2022
CUSTOMER #	29150	FIRST NAMED INVENTOR	Timothy P. Heikell
CORRESPONDENCE ADDRESS	-	AUTHORIZED BY	Beatrice Koempel-Thomas

Documents

TOTAL DOCUMENTS: 2

DOCUMENT	PAGES	DESCRIPTION	SIZE (KB)
Information Disclosure Statement.PDF	4	Information Disclosure Statement (IDS) Form (SB08)	1207 KB
1U67325.PDF	12	Non Patent Literature	3244 KB

Digest

DOCUMENT	MESSAGE DIGEST(SHA-512)
Information Disclosure Statement.PDF	B70194FD721C9A27115F120CECA2316E5BB70E5E5C903936E A856CCA0AAD0901C03226271D980C405DDDC25163ED2755D D4261B7028629D600578AFDFE1D0F15

1U67325.PDF

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3B9CA69FB26AA51C16A60DCA14668B4FB78A0C31745FFD486
7FE9CE1FC8F1476F6897D877F6D89BC

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PTO/SB/08a (01-22)
Approved for use through 05/31/2024. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (**Not for submission under 37 CFR 1.99)**		
	Application Number	17882082
	Filing Date	2022-08-05
	First Named Inventor	Timothy P. Heikell
	Art Unit	2434
	Examiner Name	Jacob Lipman
	Attorney Docket Number	N106-0002USC4

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Examiner Initial*	Cite No	Patent Number	Kind Code[1]	Issue Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear
	1					
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Examiner Initial*	Cite No	Publication Number	Kind Code[1]	Publication Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear
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Examiner Initial*	Cite No	Foreign Document Number[3]	Country Code[2] i	Kind Code[4]	Publication Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear	T[5]
	1							☐
If you wish to add additional Foreign Patent Document citation information please click the Add button							Add	

NON-PATENT LITERATURE DOCUMENTS			Remove
Examiner Initials*	Cite No	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc), date, pages(s), volume-issue number(s), publisher, city and/or country where published.	T[5]

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (**Not for submission under 37 CFR 1.99)**		
	Application Number	17882082
	Filing Date	2022-08-05
	First Named Inventor	Timothy P. Heikell
	Art Unit	2434
	Examiner Name	Jacob Lipman
	Attorney Docket Number	N106-0002USC4

	1	"Most people have at least 15 username and password combinations to remember" retrieved from the internet on August 16, 2018 at <<https://web.archive.org/web/20050111041404/http://www.microsoft.com:80/hardware/mouseandkeyboard/features/docs/fingerprint.html >>, 12 pgs	☐

If you wish to add additional non-patent literature document citation information please click the Add button Add

EXAMINER SIGNATURE

Examiner Signature		Date Considered	

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through a citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

[1] See Kind Codes of USPTO Patent Documents at www.USPTO.GOV or MPEP 901.04. [2] Enter office that issued the document, by the two-letter code (WIPO Standard ST.3). [3] For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. [4] Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. [5] Applicant is to place a check mark here if English language translation is attached.

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (**Not for submission under 37 CFR 1.99)**		
	Application Number	17882082
	Filing Date	2022-08-05
	First Named Inventor	Timothy P. Heikell
	Art Unit	2434
	Examiner Name	Jacob Lipman
	Attorney Docket Number	N106-0002USC4

CERTIFICATION STATEMENT

Please see 37 CFR 1.97 and 1.98 to make the appropriate selection(s):

☐ That each item of information contained in the information disclosure statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of the information disclosure statement. See 37 CFR 1.97(e)(1).

OR

☐ That no item of information contained in the information disclosure statement was cited in a communication from a foreign patent office in a counterpart foreign application, and, to the knowledge of the person signing the certification after making reasonable inquiry, no item of information contained in the information disclosure statement was known to any individual designated in 37 CFR 1.56(c) more than three months prior to the filing of the information disclosure statement. See 37 CFR 1.97(e)(2).

☐ See attached certification statement.

☐ The fee set forth in 37 CFR 1.17 (p) has been submitted herewith.

☒ A certification statement is not submitted herewith.

SIGNATURE

A signature of the applicant or representative is required in accordance with CFR 1.33, 10.18. Please see CFR 1.4(d) for the form of the signature.

Signature	/Bea Koempel-Thomas 58213/	Date (YYYY-MM-DD)	2023-06-21
Name/Print	Beatrice L. Koempel-Thomas	Registration Number	58213

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 1 hour to complete, including gathering, preparing and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

Privacy Act Statement

The Privacy Act of 1974 (P.L. 93-579) requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b)(2); (2) furnishing of the information solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent application or patent. If you do not furnish the requested information, the U.S. Patent and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abandonment of the application or expiration of the patent.

The information provided by you in this form will be subject to the following routine uses:

1. The information on this form will be treated confidentially to the extent allowed under the Freedom of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C. 552a). Records from this system of records may be disclosed to the Department of Justice to determine whether the Freedom of Information Act requires disclosure of these record s.

2. A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.

3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.

4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).

5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.

6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).

7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (i.e., GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.

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9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

Applicant-Initiated Interview Summary	**Application No.** 17/882,082	**Applicant(s)** Heikell, Timothy P.		
	Examiner JACOB LIPMAN	**Art Unit** 2434	**AIA (First Inventor to File) Status** No	**Page** 1 of 1

All Participants (applicant, applicants representative, PTO personnel)	**Title**	**Type**
JACOB LIPMAN	Primary Examiner	Telephonic
Bea Koempel-Thomas	Attorney	

Date of Interview: 20 June 2023

Issues Discussed:

Other

Applicant and the examiner discussed the ids filed 22 November 2022 to check that all references were properly presented.

/JACOB LIPMAN/ Primary Examiner, Art Unit 2434	

Applicant is reminded that a complete written statement as to the substance of the interview must be made of record in the application file. It is the applicants responsibility to provide the written statement, unless the interview was initiated by the Examiner and the Examiner has indicated that a written summary will be provided. See MPEP 713.04
Please further see:
MPEP 713.04
Title 37 Code of Federal Regulations (CFR) § 1.133 Interviews, paragraph (b)
37 CFR § 1.2 Business to be transacted in writing

Applicant recordation instructions: The formal written reply to the last Office action must include the substance of the interview. (See MPEP section 713.04). If a reply to the last Office action has already been filed, applicant is given a non-extendable period of the longer of one month or thirty days from this interview date, or the mailing date of this interview summary form, whichever is later, to file a statement of the substance of the interview.

Examiner recordation instructions: Examiners must summarize the substance of any interview of record. A complete and proper recordation of the substance of an interview should include the items listed in MPEP 713.04 for complete and proper recordation including the identification of the general thrust of each argument or issue discussed, a general indication of any other pertinent matters discussed regarding patentability and the general results or outcome of the interview, to include an indication as to whether or not agreement was reached on the issues raised.

Notice of References Cited	Application/Control No. 17/882,082	Applicant(s)/Patent Under Reexamination Heikell, Timothy P.	
	Examiner JACOB LIPMAN	Art Unit 2434	Page 1 of 1

U.S. PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	CPC Classification	US Classification
*	A	US-20100211997-A1	08-2010	McGeehan; Ryan	H04L63/107	726/4
	B					
	C					
	D					
	E					
	F					
	G					
	H					
	I					
	J					
	K					
	L					
	M					

FOREIGN PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Country	Name	CPC Classification
	N					
	O					
	P					
	Q					
	R					
	S					
	T					

NON-PATENT DOCUMENTS

*		Include as applicable: Author, Title Date, Publisher, Edition or Volume, Pertinent Pages)
	U	
	V	
	W	
	X	

*A copy of this reference is not being furnished with this Office action. (See MPEP § 707.05(a).)
Dates in MM-YYYY format are publication dates. Classifications may be US or foreign.

Search Notes	Application/Control No.	Applicant(s)/Patent Under Reexamination
	17/882,082	Heikell, Timothy P.
	Examiner	Art Unit
	JACOB LIPMAN	2434

CPC - Searched*		
Symbol	Date	Examiner
G06N7/005 or G06F21/316 or G06F21/50 or G06F2221/2133	06/16/2023	jl

CPC Combination Sets - Searched*		
Symbol	Date	Examiner

US Classification - Searched*			
Class	Subclass	Date	Examiner
706	52	06/16/2023	jl

* See search history printout included with this form or the SEARCH NOTES box below to determine the scope of the search.

Search Notes		
Search Notes	Date	Examiner
PE2E search	06/16/2023	jl
Inventor search	06/16/2023	jl
NPL (IP.com, google) search using the concept of comparing passive data to predicted human behavior	06/16/2023	jl

Interference Search			
US Class/CPC Symbol	US Subclass/CPC Group	Date	Examiner
G06N	7/005	06/16/2023	jl

/JACOB LIPMAN/ Primary Examiner, Art Unit 2434	

Index of Claims	Application/Control No.	Applicant(s)/Patent Under Reexamination
	17/882,082	Heikell, Timothy P.
	Examiner	**Art Unit**
	JACOB LIPMAN	2434

✓	Rejected	-	Cancelled	N	Non-Elected	A	Appeal
=	Allowed	÷	Restricted	I	Interference	O	Objected

CLAIMS

☐ Claims renumbered in the same order as presented by applicant ☐ CPA ☑ T.D. ☐ R.1.47

CLAIM		DATE								
Final	Original	10/24/2022	02/22/2023	06/16/2023						
1	1	✓	=	=						
2	2	✓	=	=						
10	3	✓	=	=						
11	4	✓	=	=						
12	5	✓	=	=						
13	6	✓	=	=						
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29	27	✓	=	=						
30	28	✓	=	=						
23	29	✓	=	=						
24	30	✓	=	=						

Issue Classification	Application/Control No.	Applicant(s)/Patent Under Reexamination
	17/882,082	Heikell, Timothy P.
	Examiner	**Art Unit**
	JACOB LIPMAN	2434

CPC							
Symbol						**Type**	**Version**
G06N	/	7	/	01		F	2023-01-01
G06F	/	21	/	50		I	2013-01-01
G06F	/	21	/	316		I	2013-01-01
G06F	/	2221	/	2133		A	2013-01-01

CPC Combination Sets								
Symbol						**Type**	**Set**	**Ranking**	**Version**
	/		/						

NONE		Total Claims Allowed:	
(Assistant Examiner)	(Date)	30	
/JACOB LIPMAN/ Primary Examiner, Art Unit 2434	16 June 2023	O.G. Print Claim(s)	O.G. Print Figure
(Primary Examiner)	(Date)	1	1

U.S. Patent and Trademark Office — Part of Paper No.: 20230615

Issue Classification	Application/Control No.	Applicant(s)/Patent Under Reexamination
	17/882,082	Heikell, Timothy P.
	Examiner	**Art Unit**
	JACOB LIPMAN	2434

INTERNATIONAL CLASSIFICATION				
CLAIMED				
G06N	/	7	/	01

NON-CLAIMED				
	/		/	

US ORIGINAL CLASSIFICATION	
CLASS	**SUBCLASS**
706	52

CROSS REFERENCES(S)						
CLASS	**SUBCLASS (ONE SUBCLASS PER BLOCK)**					

NONE (Assistant Examiner)	(Date)	**Total Claims Allowed:** 30	
/JACOB LIPMAN/ Primary Examiner, Art Unit 2434 (Primary Examiner)	16 June 2023 (Date)	O.G. Print Claim(s) 1	O.G. Print Figure 1

U.S. Patent and Trademark Office — Part of Paper No.: 20230615

Issue Classification	Application/Control No.	Applicant(s)/Patent Under Reexamination
	17/882,082	Heikell, Timothy P.
	Examiner	**Art Unit**
	JACOB LIPMAN	2434

☐ Claims renumbered in the same order as presented by applicant ☐ CPA ☑ T.D. ☐ R.1.47

CLAIMS

Final	Original	Final	Original	Final	Original	Final	Original	Final	Original	Final	Original	Final	Original	Final	Original
1	1	4	10	17	19	30	28								
2	2	5	11	18	20	23	29								
10	3	6	12	19	21	24	30								
11	4	7	13	22	22										
12	5	8	14	25	23										
13	6	9	15	26	24										
14	7	16	16	27	25										
15	8	20	17	28	26										
3	9	21	18	29	27										

NONE		**Total Claims Allowed:**	
(Assistant Examiner)	(Date)	30	
/JACOB LIPMAN/ Primary Examiner, Art Unit 2434	16 June 2023	O.G. Print Claim(s)	O.G. Print Figure
(Primary Examiner)	(Date)	1	1

U.S. Patent and Trademark Office — Part of Paper No.: 20230615

Doc code: IDS
Doc description: Information Disclosure Statement (IDS) Filed

PTO/SB/08a (01-22)
Approved for use through 05/31/2024. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
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INFORMATION DISCLOSURE STATEMENT BY APPLICANT
(Not for submission under 37 CFR 1.99)

Application Number	17882082
Filing Date	2022-08-05
First Named Inventor	Timothy P. Heikell
Art Unit	2434
Examiner Name	Jacob Lipman
Attorney Docket Number	N106-0002USC4

U.S.PATENTS Remove

Examiner Initial*	Cite No	Patent Number	Kind Code[1]	Issue Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear
	1	6195698	B1	2001-02-27	Mark D. Lillibridge, et al.	
	2	7373524	B2	2008-05-13	David Lee Motsinger, et al.	
	3	7516220	B1	2009-04-07	Steven Joseph Stiert	
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INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)		
	Application Number	17882082
	Filing Date	2022-08-05
	First Named Inventor	Timothy P. Heikell
	Art Unit	2434
	Examiner Name	Jacob Lipman
	Attorney Docket Number	N106-0002USC4

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	Examiner Name	Jacob Lipman
	Attorney Docket Number	N106-0002USC4

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	Examiner Name	Jacob Lipman
	Attorney Docket Number	N106-0002USC4

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	Attorney Docket Number	N106-0002USC4

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	Art Unit	2434
	Examiner Name	Jacob Lipman
	Attorney Docket Number	N106-0002USC4

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Signature	/Bea Koempel-Thomas 58213/	Date (YYYY-MM-DD)	2023-06-07
Name/Print	Beatrice L. Koempel-Thomas	Registration Number	58213

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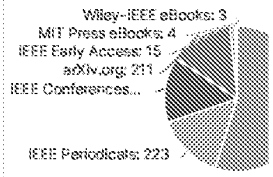
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Status: 30/DOCKETED NEW CASE - READY FOR EXAMINATION (Status Date: 06/13/2023)

Examiner: 80025 / LIPMAN,JACOB

Filing date: 08/05/2022

GAU: 2434

Continuity/foreign: YES

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Lookup

Inventor last name

Inventor first name

Clear

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Results for last name 'Heikell' and first name 'Timothy'

Inventor Name	Application Number #	Patent Number	PG Pub Number	Status	Title	Examiner Name	Date Filed
HEIKELL, TIMOTHY P.	10417813	Not Issued	20040107206	161	Automated retrieval of data from remote location and database synchronization	COLAN,GIOVANNA	04/16/2003
HEIKELL, TIMOTHY P.	12313502	9595008		150	Systems, methods, apparatus for evaluating status of computing device user	HOLMES,MICHAEL	11/19/2008
HEIKELL, TIMOTHY P.	15457099	10423885	20180012138	150	Systems, Methods and Apparatus for Evaluating Status of Computing Device User	HOLMES,MICHAEL	03/13/2017
HEIKELL, TIMOTHY P.	16578823	Not Issued	20200118021	93	Systems, Methods and Apparatus for Evaluating Status of Computing Device User	LIPMAN,JACOB	09/23/2019
HEIKELL, TIMOTHY P.	17874137	Not Issued	20220398475	93	Systems, Methods and Apparatus for Evaluating Status of Computing Device User	LIPMAN,JACOB	07/26/2022

Inventor Name	Application Number #	Patent Number	PG Pub Number	Status	Title	Examiner Name	Date Filed
HEIKELL, TIMOTHY P.	17882082	Not Issued	20220398476	30	Systems, Methods and Apparatus for Evaluating Status of Computing Device User	LIPMAN,JACOB	08/05/2022
HEIKELL, TIMOTHY P.	60373411	Not Issued		159	Automated retrieval of data from remote location and database synchronization		04/16/2002
HEIKELL, TIMOTHY P.	61003743	Not Issued		159	Methods, apparatus and systems for verifying human user presence in a networked environment		11/19/2007
HEIKELL, TIMOTHY P.	60022022	Not Issued		159	METHODS FOR CREATING A PROTECTIVE FILM SHIELD FOR THREE DIMENSIONAL OBJECTS		06/14/1996

Application URL: https://opsg-portal.uspto.gov/OPSGPortal/?externalurl=true&LookUps=invLookup&lastName=Heikell&firstName=Timothy (https://opsg-portal.uspto.gov/OPSGPortal/?externalurl=true&LookUps=invLookup&lastName=Heikell&firstName=Timothy)

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CONFIRMATION NO. 4844

SERIAL NUMBER	FILING or 371(c) DATE	CLASS	GROUP ART UNIT	ATTORNEY DOCKET NO.
17/882,082	08/05/2022 RULE	706	2434	N106-0002USC4

APPLICANTS
Nobots LLC, Renton, WA;

INVENTORS
Timothy P. Heikell, Renton, WA;

**** CONTINUING DATA ***************************
This application is a CON of 16/578,823 09/23/2019
which is a DIV of 15/457,099 03/13/2017 PAT 10423885
which is a CON of 12/313,502 11/19/2008 PAT 9595008
which claims benefit of 61/003,743 11/19/2007

**** FOREIGN APPLICATIONS ***************************

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Foreign Priority claimed	35 USC 119(a-d) conditions met	Verified and Acknowledged	Met after Allowance	STATE OR COUNTRY	SHEETS DRAWINGS	TOTAL CLAIMS	INDEPENDENT CLAIMS
❑ Yes ☑ No	❑ Yes ☑ No	/JACOB LIPMAN/ Examiner's Signature	❑ Initials	WA	4	30	3

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SPOKANE, WA 99201
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TITLE
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L3	60	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood SAME human WITH model	(US-PGPUB; USPAT)	OR	ON	ON	2022/03/31 11:17 AM
L4	14	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood SAME human near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2022/03/31 11:17 AM
L5	95	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood AND human near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2022/03/31 11:19 AM
L6	92	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND captcha AND human near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2022/03/31 11:19 AM
L7	207	captcha AND human near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2022/03/31 11:20 AM
L8	1	"20060280339".pn.	(US-PGPUB; USPAT)	OR	ON	ON	2022/03/31 11:32 AM
L9	22	("5933498" "6460141" "7506170" "8694244" "8700259" "8706405" "8713657" "8738287" "8775235" "8775236" "8824659" "8825379"	(US-PGPUB; USPAT)	OR	ON	ON	2022/03/31 12:32 PM

		"8903052" "9047458" "9088652" "9152381" "9208461" "9240078" "9595008" "20080225870" "20090197815" "20130019290").pn.					
L10	0	human ADJ proof near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2022/03/31 12:34 PM
L11	4	human ADJ proof WITH model	(US-PGPUB; USPAT)	OR	ON	ON	2022/03/31 12:34 PM
L12	29	human ADJ proof SAME model	(US-PGPUB; USPAT)	OR	ON	ON	2022/03/31 12:34 PM
L13	36	human ADJ proof AND human near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2022/03/31 12:35 PM
L14	53	human ADJ proof AND human WITH model	(US-PGPUB; USPAT)	OR	ON	ON	2022/03/31 12:35 PM
L15	492	human ADJ proof AND human WITH model	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2022/03/31 12:35 PM
L16	492	human ADJ proof AND human WITH model	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2022/03/31 12:35 PM
L17	300	human ADJ proof SAME model	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB,	OR	ON	ON	2022/03/31 12:35 PM

			HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)				
L18	614	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2022/03/31 12:35 PM
L19	89	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood WITH model	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2022/03/31 12:36 PM
L20	213	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human near3 likelihood	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT;	OR	ON	ON	2022/03/31 12:37 PM

			IBM_TDB)				
L21	76104	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. grant$4 near2 access WITH human	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2022/03/31 02:20 PM
L22	181	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND grant$4 near2 access WITH human	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2022/03/31 02:20 PM
L23	153	(G06F2221/2133).cpc. AND grant$4 near2 access WITH human	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2022/03/31 02:20 PM
L24	185	(G06F2221/2133).cpc. AND allow$4 near2 access WITH human	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV,	OR	ON	ON	2022/03/31 02:20 PM

			MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)				
L25	394	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood	(US-PGPUB; USPAT)	OR	ON	ON	2022/10/23 11:41 AM
L26	177	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood AND human WITH model	(US-PGPUB; USPAT)	OR	ON	ON	2022/10/23 11:41 AM
L27	70	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood SAME human WITH model	(US-PGPUB; USPAT)	OR	ON	ON	2022/10/23 11:41 AM
L28	14	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood SAME human near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2022/10/23 11:41 AM
L29	108	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood AND human near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2022/10/23 11:41 AM
L30	100	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND captcha AND human near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2022/10/23 11:41 AM
L31	221	captcha AND human near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2022/10/23 11:41 AM
L32	1	"20060280339".pn.	(US-PGPUB; USPAT)	OR	ON	ON	2022/10/23 11:41 AM
L33	22	("5933498" "6460141" "7506170" "8694244" "8700259" "8706405"	(US-PGPUB; USPAT)	OR	ON	ON	2022/10/23 11:41 AM

		"8713657" "8738287" "8775235" "8775236" "8824659" "8825379" "8903052" "9047458" "9088652" "9152381" "9208461" "9240078" "9595008" "20080225870" "20090197815" "20130019290").pn.					
L34	0	human ADJ proof near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2022/10/23 11:41 AM
L35	4	human ADJ proof WITH model	(US-PGPUB; USPAT)	OR	ON	ON	2022/10/23 11:41 AM
L36	33	human ADJ proof SAME model	(US-PGPUB; USPAT)	OR	ON	ON	2022/10/23 11:41 AM
L37	38	human ADJ proof AND human near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2022/10/23 11:41 AM
L38	56	human ADJ proof AND human WITH model	(US-PGPUB; USPAT)	OR	ON	ON	2022/10/23 11:41 AM
L39	657	human ADJ proof AND human WITH model	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2022/10/23 11:41 AM
L40	657	human ADJ proof AND human WITH model	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2022/10/23 11:41 AM
L41	409	human ADJ proof SAME model	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY,	OR	ON	ON	2022/10/23 11:41 AM

			CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)				
L42	674	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2022/10/23 11:41 AM
L43	101	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood WITH model	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2022/10/23 11:41 AM
L44	232	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human near3 likelihood	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH,	OR	ON	ON	2022/10/23 11:41 AM

			TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)				
L45	88054	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. grant$4 near2 access WITH human	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2022/10/23 11:41 AM
L46	194	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND grant$4 near2 access WITH human	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2022/10/23 11:41 AM
L47	158	(G06F2221/2133).cpc. AND grant$4 near2 access WITH human	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2022/10/23 11:41 AM
L48	195	(G06F2221/2133).cpc. AND allow$4 near2 access WITH human	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA,	OR	ON	ON	2022/10/23 11:41 AM

			EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)				
L49	1	"10423885".pn.	(US-PGPUB; USPAT)	OR	ON	ON	2022/10/23 11:54 AM
L50	1	"8713657".pn.	(US-PGPUB; USPAT)	OR	ON	ON	2022/10/23 11:59 AM
L51	1	"20130019290".pn.	(US-PGPUB; USPAT)	OR	ON	ON	2022/10/23 12:11 PM
L52	18	("6405922" "7089241" "7895653" "8280993" "8838570" "20050198158" "20050278253" "20070106737" "20070165911" "20070192419" "20070239604" "20070255818" "20070255821" "20080086524" "20080114624" "20080147456" "20080319774" "20090024971").pn.	(US-PGPUB; USPAT)	OR	ON	ON	2022/10/23 12:15 PM
L53	13	("6405922" "7089241" "7895653" "8280993" "8838570" "20050198158" "20050278253" "20070106737" "20070165911" "20070192419" "20070239604" "20070255818" "20070255821" "20080086524" "20080114624" "20080147456" "20080319774" "20090024971").pn. AND (likel$7 probab$7)	(US-PGPUB; USPAT)	OR	ON	ON	2022/10/23 12:16 PM
L54	8	("6405922" "7089241" "7895653" "8280993" "8838570" "20050198158" "20050278253" "20070106737"	(US-PGPUB; USPAT)	OR	ON	ON	2022/10/23 12:16 PM

		"20070165911" "20070192419" "20070239604" "20070255818" "20070255821" "20080086524" "20080114624" "20080147456" "20080319774" "20090024971").pn. AND (likel$7 probab$7) WITH (human person automat$7)					
L55	19896	activ$4 WITH passiv$4 AND (likel$7 probab$7) WITH (human person automat$7)	(US-PGPUB; USPAT)	OR	ON	ON	2022/10/23 12:26 PM
L56	446	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND activ$4 WITH passiv$4 AND (likel$7 probab$7) WITH (human person automat$7 bot)	(US-PGPUB; USPAT)	OR	ON	ON	2022/10/23 12:27 PM
L57	20	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND activ$4 WITH passiv$4 AND (likel$7 probab$7) WITH (human person automat$7 bot) AND captcha	(US-PGPUB; USPAT)	OR	ON	ON	2022/10/23 12:27 PM
L58	16	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND activ$4 WITH passiv$4 AND (likel$7 probab$7) WITH (human person automat$7 bot) WITH compar$4 WITH (prior previous$4 histor$7)	(US-PGPUB; USPAT)	OR	ON	ON	2022/10/23 04:36 PM
L59	46	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND (likel$7 probab$7) WITH (human person automat$7 bot) WITH compar$4 WITH (prior previous$4 histor$7)	(US-PGPUB; USPAT)	OR	ON	ON	2022/10/23 04:38 PM

L60	564	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND (human person automat$7 bot) WITH compar$4 WITH (prior previous$4 histor$7)	(US-PGPUB; USPAT)	OR	ON	ON	2022/10/23 04:39 PM
L61	257	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND (human person automat$7 bot) WITH compar$4 near4 (prior previous$4 histor$7)	(US-PGPUB; USPAT)	OR	ON	ON	2022/10/23 04:39 PM
L62	3	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND normal WITH (human person automat$7 bot) WITH compar$4 near4 (prior previous$4 histor$7)	(US-PGPUB; USPAT)	OR	ON	ON	2022/10/23 04:41 PM
L63	9	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND normal WITH (human person automat$7 bot) WITH captcha	(US-PGPUB; USPAT)	OR	ON	ON	2022/10/23 04:56 PM
L64	11	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND captcha WITH (human person automat$7 bot) WITH compar$4 near4 (prior previous$4 histor$7)	(US-PGPUB; USPAT)	OR	ON	ON	2022/10/23 04:56 PM
L65	121	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND captcha WITH (human person automat$7 bot) WITH (prior previous$4 histor$7)	(US-PGPUB; USPAT)	OR	ON	ON	2022/10/23 04:56 PM
L66	445	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND captcha AND	(US-PGPUB; USPAT)	OR	ON	ON	2022/10/23 04:57 PM

		(human person automat$7 bot) WITH (prior previous$4 histor$7)					
L67	27082	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc.	(US-PGPUB; USPAT)	OR	ON	ON	2022/10/24 11:24 AM
L68	157	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/21 12:57 PM
L69	44	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood AND human WITH model	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/21 12:57 PM
L70	15	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood SAME human WITH model	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/21 12:57 PM
L71	7	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood SAME human near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/21 12:57 PM
L72	29	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood AND human near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/21 12:57 PM
L73	99	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND captcha AND human near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/21 12:57 PM
L74	232	captcha AND human near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/21 12:57 PM
L75	1	"20060280339".pn.	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/21 12:57 PM
L76	22	("5933498" "6460141" "7506170" "8694244" "8700259" "8706405"	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/21 12:57 PM

		"8713657" "8738287" "8775235" "8775236" "8824659" "8825379" "8903052" "9047458" "9088652" "9152381" "9208461" "9240078" "9595008" "20080225870" "20090197815" "20130019290").pn.					
L77	0	human ADJ proof near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/21 12:57 PM
L78	4	human ADJ proof WITH model	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/21 12:57 PM
L79	33	human ADJ proof SAME model	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/21 12:57 PM
L80	38	human ADJ proof AND human near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/21 12:57 PM
L81	56	human ADJ proof AND human WITH model	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/21 12:57 PM
L82	737	human ADJ proof AND human WITH model	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/02/21 12:57 PM
L83	737	human ADJ proof AND human WITH model	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/02/21 12:57 PM
L84	457	human ADJ proof SAME model	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY,	OR	ON	ON	2023/02/21 12:57 PM

			CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)				
L85	274	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/02/21 12:57 PM
L86	17	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood WITH model	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/02/21 12:57 PM
L87	138	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human near3 likelihood	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH,	OR	ON	ON	2023/02/21 12:57 PM

			TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)				
L88	40846	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. grant$4 near2 access WITH human	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/02/21 12:57 PM
L89	183	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND grant$4 near2 access WITH human	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/02/21 12:57 PM
L90	161	(G06F2221/2133).cpc. AND grant$4 near2 access WITH human	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/02/21 12:57 PM
L91	199	(G06F2221/2133).cpc. AND allow$4 near2 access WITH human	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA,	OR	ON	ON	2023/02/21 12:57 PM

			EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)				
L92	157	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/21 12:57 PM
L93	44	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood AND human WITH model	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/21 12:57 PM
L94	15	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood SAME human WITH model	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/21 12:57 PM
L95	7	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood SAME human near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/21 12:57 PM
L96	29	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood AND human near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/21 12:57 PM
L97	99	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND captcha AND human near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/21 12:57 PM
L98	232	captcha AND human near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/21 12:57 PM
L99	1	"20060280339".pn.	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/21 12:57 PM

L100	22	("5933498" "6460141" "7506170" "8694244" "8700259" "8706405" "8713657" "8738287" "8775235" "8775236" "8824659" "8825379" "8903052" "9047458" "9088652" "9152381" "9208461" "9240078" "9595008" "20080225870" "20090197815" "20130019290").pn.	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/21 12:57 PM
L101	0	human ADJ proof near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/21 12:57 PM
L102	4	human ADJ proof WITH model	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/21 12:57 PM
L103	33	human ADJ proof SAME model	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/21 12:57 PM
L104	38	human ADJ proof AND human near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/21 12:57 PM
L105	56	human ADJ proof AND human WITH model	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/21 12:57 PM
L106	737	human ADJ proof AND human WITH model	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/02/21 12:57 PM
L107	737	human ADJ proof AND human WITH model	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/02/21 12:57 PM

L108	457	human ADJ proof SAME model	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/02/21 12:57 PM
L109	274	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/02/21 12:57 PM
L110	17	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood WITH model	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/02/21 12:57 PM
L111	138	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human near3 likelihood	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL,	OR	ON	ON	2023/02/21 12:57 PM

			NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)				
L112	40846	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. grant$4 near2 access WITH human	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/02/21 12:57 PM
L113	183	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND grant$4 near2 access WITH human	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/02/21 12:57 PM
L114	161	(G06F2221/2133).cpc. AND grant$4 near2 access WITH human	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/02/21 12:57 PM
L115	199	(G06F2221/2133).cpc. AND allow$4 near2	(US-PGPUB; USPAT; USOCR; FIT (AP, AT,	OR	ON	ON	2023/02/21 12:57 PM

		access WITH human	AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)				
L116	1	"10423885".pn.	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/21 12:57 PM
L117	1	"8713657".pn.	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/21 12:57 PM
L118	1	"20130019290".pn.	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/21 12:57 PM
L119	18	("6405922" "7089241" "7895653" "8280993" "8838570" "20050198158" "20050278253" "20070106737" "20070165911" "20070192419" "20070239604" "20070255818" "20070255821" "20080086524" "20080114624" "20080147456" "20080319774" "20090024971").pn.	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/21 12:57 PM
L120	13	("6405922" "7089241" "7895653" "8280993" "8838570" "20050198158" "20050278253" "20070106737" "20070165911" "20070192419" "20070239604" "20070255818" "20070255821" "20080086524" "20080114624" "20080147456" "20080319774" "20090024971").pn. AND (likel$7 probab$7)	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/21 12:57 PM
L121	8	("6405922" "7089241" "7895653" "8280993" "8838570"	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/21 12:57 PM

		"20050198158" "20050278253" "20070106737" "20070165911" "20070192419" "20070239604" "20070255818" "20070255821" "20080086524" "20080114624" "20080147456" "20080319774" "20090024971").pn. AND (likel$7 probab$7) WITH (human person automat$7)					
L122	20726	activ$4 WITH passiv$4 AND (likel$7 probab$7) WITH (human person automat$7)	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/21 12:57 PM
L123	115	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND activ$4 WITH passiv$4 AND (likel$7 probab$7) WITH (human person automat$7 bot)	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/21 12:57 PM
L124	22	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND activ$4 WITH passiv$4 AND (likel$7 probab$7) WITH (human person automat$7 bot) AND captcha	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/21 12:57 PM
L125	6	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND activ$4 WITH passiv$4 AND (likel$7 probab$7) WITH (human person automat$7 bot) WITH compar$4 WITH (prior previous$4 histor$7)	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/21 12:57 PM
L126	13	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND (likel$7 probab$7) WITH (human person	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/21 12:57 PM

		automat$7 bot) WITH compar$4 WITH (prior previous$4 histor$7)					
L127	292	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND (human person automat$7 bot) WITH compar$4 WITH (prior previous$4 histor$7)	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/21 12:57 PM
L128	85	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND (human person automat$7 bot) WITH compar$4 near4 (prior previous$4 histor$7)	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/21 12:57 PM
L129	1	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND normal WITH (human person automat$7 bot) WITH compar$4 near4 (prior previous$4 histor$7)	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/21 12:57 PM
L130	9	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND normal WITH (human person automat$7 bot) WITH captcha	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/21 12:57 PM
L131	11	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND captcha WITH (human person automat$7 bot) WITH compar$4 near4 (prior previous$4 histor$7)	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/21 12:57 PM
L132	124	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND captcha WITH (human person automat$7 bot) WITH (prior previous$4 histor$7)	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/21 12:57 PM
L133	432	(G06N7/005 OR G06F21/316 OR	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/21 12:57 PM

		G06F21/50 OR G06F2221/2133).cpc. AND captcha AND (human person automat$7 bot) WITH (prior previous$4 histor$7)					
L134	7070	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc.	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/21 12:57 PM
L135	157	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/22 08:48 AM
L136	44	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood AND human WITH model	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/22 08:48 AM
L137	15	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood SAME human WITH model	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/22 08:48 AM
L138	7	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood SAME human near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/22 08:48 AM
L139	29	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood AND human near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/22 08:48 AM
L140	99	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND captcha AND human near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/22 08:48 AM
L141	232	captcha AND human near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/22 08:48 AM
L142	1	"20060280339".pn.	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/22 08:48 AM

L143	22	("5933498" "6460141" "7506170" "8694244" "8700259" "8706405" "8713657" "8738287" "8775235" "8775236" "8824659" "8825379" "8903052" "9047458" "9088652" "9152381" "9208461" "9240078" "9595008" "20080225870" "20090197815" "20130019290").pn.	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/22 08:48 AM
L144	0	human ADJ proof near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/22 08:48 AM
L145	4	human ADJ proof WITH model	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/22 08:48 AM
L146	33	human ADJ proof SAME model	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/22 08:48 AM
L147	38	human ADJ proof AND human near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/22 08:48 AM
L148	56	human ADJ proof AND human WITH model	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/22 08:48 AM
L149	737	human ADJ proof AND human WITH model	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/02/22 08:48 AM
L150	737	human ADJ proof AND human WITH model	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/02/22 08:48 AM

L151	457	human ADJ proof SAME model	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/02/22 08:48 AM
L152	274	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/02/22 08:48 AM
L153	17	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood WITH model	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/02/22 08:48 AM
L154	138	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human near3 likelihood	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL,	OR	ON	ON	2023/02/22 08:48 AM

			NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)				
L155	40846	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. grant$4 near2 access WITH human	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/02/22 08:48 AM
L156	183	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND grant$4 near2 access WITH human	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/02/22 08:48 AM
L157	161	(G06F2221/2133).cpc. AND grant$4 near2 access WITH human	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/02/22 08:48 AM
L158	199	(G06F2221/2133).cpc. AND allow$4 near2	(US-PGPUB; USPAT; USOCR; FIT (AP, AT,	OR	ON	ON	2023/02/22 08:48 AM

		access WITH human	AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)				
L159	157	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/22 08:48 AM
L160	44	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood AND human WITH model	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/22 08:48 AM
L161	15	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood SAME human WITH model	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/22 08:48 AM
L162	7	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood SAME human near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/22 08:48 AM
L163	29	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood AND human near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/22 08:48 AM
L164	99	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND captcha AND human near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/22 08:48 AM
L165	232	captcha AND human near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/22 08:48 AM

L166	1	"20060280339".pn.	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/22 08:48 AM
L167	22	("5933498" "6460141" "7506170" "8694244" "8700259" "8706405" "8713657" "8738287" "8775235" "8775236" "8824659" "8825379" "8903052" "9047458" "9088652" "9152381" "9208461" "9240078" "9595008" "20080225870" "20090197815" "20130019290").pn.	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/22 08:48 AM
L168	0	human ADJ proof near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/22 08:48 AM
L169	4	human ADJ proof WITH model	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/22 08:48 AM
L170	33	human ADJ proof SAME model	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/22 08:48 AM
L171	38	human ADJ proof AND human near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/22 08:48 AM
L172	56	human ADJ proof AND human WITH model	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/22 08:48 AM
L173	737	human ADJ proof AND human WITH model	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/02/22 08:48 AM
L174	737	human ADJ proof AND human WITH model	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO;	OR	ON	ON	2023/02/22 08:48 AM

			JPO; DERWENT; IBM_TDB)				
L175	457	human ADJ proof SAME model	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/02/22 08:48 AM
L176	274	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/02/22 08:48 AM
L177	17	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood WITH model	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/02/22 08:48 AM
L178	138	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human near3 likelihood	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS,	OR	ON	ON	2023/02/22 08:48 AM

			IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)				
L179	40846	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. grant$4 near2 access WITH human	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/02/22 08:48 AM
L180	183	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND grant$4 near2 access WITH human	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/02/22 08:48 AM
L181	161	(G06F2221/2133).cpc. AND grant$4 near2 access WITH human	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/02/22 08:48 AM

L182	199	(G06F2221/2133).cpc. AND allow$4 near2 access WITH human	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/02/22 08:48 AM
L183	1	"10423885".pn.	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/22 08:48 AM
L184	1	"8713657".pn.	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/22 08:48 AM
L185	1	"20130019290".pn.	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/22 08:48 AM
L186	18	("6405922" "7089241" "7895653" "8280993" "8838570" "20050198158" "20050278253" "20070106737" "20070165911" "20070192419" "20070239604" "20070255818" "20070255821" "20080086524" "20080114624" "20080147456" "20080319774" "20090024971").pn.	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/22 08:48 AM
L187	13	("6405922" "7089241" "7895653" "8280993" "8838570" "20050198158" "20050278253" "20070106737" "20070165911" "20070192419" "20070239604" "20070255818" "20070255821" "20080086524" "20080114624" "20080147456" "20080319774" "20090024971").pn. AND (likel$7 probab$7)	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/22 08:48 AM
L188	8	("6405922" "7089241"	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/22

		"7895653" "8280993" "8838570" "20050198158" "20050278253" "20070106737" "20070165911" "20070192419" "20070239604" "20070255818" "20070255821" "20080086524" "20080114624" "20080147456" "20080319774" "20090024971").pn. AND (likel$7 probab$7) WITH (human person automat$7)					08:48 AM
L189	20726	activ$4 WITH passiv$4 AND (likel$7 probab$7) WITH (human person automat$7)	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/22 08:48 AM
L190	115	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND activ$4 WITH passiv$4 AND (likel$7 probab$7) WITH (human person automat$7 bot)	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/22 08:48 AM
L191	22	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND activ$4 WITH passiv$4 AND (likel$7 probab$7) WITH (human person automat$7 bot) AND captcha	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/22 08:48 AM
L192	6	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND activ$4 WITH passiv$4 AND (likel$7 probab$7) WITH (human person automat$7 bot) WITH compar$4 WITH (prior previous$4 histor$7)	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/22 08:48 AM
L193	13	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc.	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/22 08:48 AM

		AND (likel$7 probab$7) WITH (human person automat$7 bot) WITH compar$4 WITH (prior previous$4 histor$7)					
L194	292	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND (human person automat$7 bot) WITH compar$4 WITH (prior previous$4 histor$7)	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/22 08:48 AM
L195	85	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND (human person automat$7 bot) WITH compar$4 near4 (prior previous$4 histor$7)	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/22 08:48 AM
L196	1	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND normal WITH (human person automat$7 bot) WITH compar$4 near4 (prior previous$4 histor$7)	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/22 08:48 AM
L197	9	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND normal WITH (human person automat$7 bot) WITH captcha	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/22 08:48 AM
L198	11	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND captcha WITH (human person automat$7 bot) WITH compar$4 near4 (prior previous$4 histor$7)	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/22 08:48 AM
L199	124	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND captcha WITH (human person automat$7 bot) WITH (prior previous$4 histor$7)	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/22 08:48 AM

L200	432	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND captcha AND (human person automat$7 bot) WITH (prior previous$4 histor$7)	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/22 08:48 AM
L201	7070	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc.	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/22 08:48 AM
L202	157	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/22 08:48 AM
L203	44	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood AND human WITH model	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/22 08:48 AM
L204	15	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood SAME human WITH model	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/22 08:48 AM
L205	7	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood SAME human near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/22 08:48 AM
L206	29	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood AND human near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/22 08:48 AM
L207	99	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND captcha AND human near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/22 08:48 AM
L208	232	captcha AND human near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/22 08:48 AM

L209	1	"20060280339".pn.	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/22 08:48 AM
L210	22	("5933498" "6460141" "7506170" "8694244" "8700259" "8706405" "8713657" "8738287" "8775235" "8775236" "8824659" "8825379" "8903052" "9047458" "9088652" "9152381" "9208461" "9240078" "9595008" "20080225870" "20090197815" "20130019290").pn.	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/22 08:48 AM
L211	0	human ADJ proof near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/22 08:48 AM
L212	4	human ADJ proof WITH model	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/22 08:48 AM
L213	33	human ADJ proof SAME model	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/22 08:48 AM
L214	38	human ADJ proof AND human near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/22 08:48 AM
L215	56	human ADJ proof AND human WITH model	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/22 08:48 AM
L216	737	human ADJ proof AND human WITH model	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/02/22 08:48 AM
L217	737	human ADJ proof AND human WITH model	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO;	OR	ON	ON	2023/02/22 08:48 AM

			JPO; DERWENT; IBM_TDB)				
L218	457	human ADJ proof SAME model	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/02/22 08:48 AM
L219	274	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/02/22 08:48 AM
L220	17	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood WITH model	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/02/22 08:48 AM
L221	138	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human near3 likelihood	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS,	OR	ON	ON	2023/02/22 08:48 AM

			IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)				
L222	40846	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. grant$4 near2 access WITH human	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/02/22 08:48 AM
L223	183	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND grant$4 near2 access WITH human	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/02/22 08:48 AM
L224	161	(G06F2221/2133).cpc. AND grant$4 near2 access WITH human	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/02/22 08:48 AM

L225	199	(G06F2221/2133).cpc. AND allow$4 near2 access WITH human	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/02/22 08:48 AM
L226	157	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/22 08:48 AM
L227	44	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood AND human WITH model	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/22 08:48 AM
L228	15	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood SAME human WITH model	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/22 08:48 AM
L229	7	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood SAME human near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/22 08:48 AM
L230	29	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood AND human near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/22 08:48 AM
L231	99	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND captcha AND human near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/22 08:48 AM

L232	232	captcha AND human near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/22 08:48 AM
L233	1	"20060280339".pn.	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/22 08:48 AM
L234	22	("5933498" "6460141" "7506170" "8694244" "8700259" "8706405" "8713657" "8738287" "8775235" "8775236" "8824659" "8825379" "8903052" "9047458" "9088652" "9152381" "9208461" "9240078" "9595008" "20080225870" "20090197815" "20130019290").pn.	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/22 08:48 AM
L235	0	human ADJ proof near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/22 08:48 AM
L236	4	human ADJ proof WITH model	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/22 08:48 AM
L237	33	human ADJ proof SAME model	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/22 08:48 AM
L238	38	human ADJ proof AND human near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/22 08:48 AM
L239	56	human ADJ proof AND human WITH model	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/22 08:48 AM
L240	737	human ADJ proof AND human WITH model	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/02/22 08:48 AM
L241	737	human ADJ proof AND human WITH model	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK,	OR	ON	ON	2023/02/22 08:48 AM

			TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)				
L242	457	human ADJ proof SAME model	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/02/22 08:48 AM
L243	274	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/02/22 08:48 AM
L244	17	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood WITH model	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/02/22 08:48 AM
L245	138	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human near3	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA,	OR	ON	ON	2023/02/22 08:48 AM

		likelihood	EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)				
L246	40846	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. grant$4 near2 access WITH human	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/02/22 08:48 AM
L247	183	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND grant$4 near2 access WITH human	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/02/22 08:48 AM
L248	161	(G06F2221/2133).cpc. AND grant$4 near2 access WITH human	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO;	OR	ON	ON	2023/02/22 08:48 AM

			JPO; DERWENT; IBM_TDB)				
L249	199	(G06F2221/2133).cpc. AND allow$4 near2 access WITH human	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/02/22 08:48 AM
L250	1	"10423885".pn.	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/22 08:48 AM
L251	1	"8713657".pn.	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/22 08:48 AM
L252	1	"20130019290".pn.	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/22 08:48 AM
L253	18	("6405922" "7089241" "7895653" "8280993" "8838570" "20050198158" "20050278253" "20070106737" "20070165911" "20070192419" "20070239604" "20070255818" "20070255821" "20080086524" "20080114624" "20080147456" "20080319774" "20090024971").pn.	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/22 08:48 AM
L254	13	("6405922" "7089241" "7895653" "8280993" "8838570" "20050198158" "20050278253" "20070106737" "20070165911" "20070192419" "20070239604" "20070255818" "20070255821" "20080086524" "20080114624" "20080147456" "20080319774" "20090024971").pn.	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/22 08:48 AM

		AND (likel$7 probab$7)					
L255	8	("6405922" "7089241" "7895653" "8280993" "8838570" "20050198158" "20050278253" "20070106737" "20070165911" "20070192419" "20070239604" "20070255818" "20070255821" "20080086524" "20080114624" "20080147456" "20080319774" "20090024971").pn. AND (likel$7 probab$7) WITH (human person automat$7)	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/22 08:48 AM
L256	20726	activ$4 WITH passiv$4 AND (likel$7 probab$7) WITH (human person automat$7)	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/22 08:48 AM
L257	115	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND activ$4 WITH passiv$4 AND (likel$7 probab$7) WITH (human person automat$7 bot)	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/22 08:48 AM
L258	22	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND activ$4 WITH passiv$4 AND (likel$7 probab$7) WITH (human person automat$7 bot) AND captcha	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/22 08:48 AM
L259	6	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND activ$4 WITH passiv$4 AND (likel$7 probab$7) WITH (human person automat$7 bot) WITH compar$4 WITH (prior previous$4 histor$7)	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/22 08:48 AM
L260	13	(G06N7/005 OR G06F21/316 OR	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/22 08:48 AM

		G06F21/50 OR G06F2221/2133).cpc. AND (likel$7 probab$7) WITH (human person automat$7 bot) WITH compar$4 WITH (prior previous$4 histor$7)					
L261	292	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND (human person automat$7 bot) WITH compar$4 WITH (prior previous$4 histor$7)	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/22 08:48 AM
L262	85	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND (human person automat$7 bot) WITH compar$4 near4 (prior previous$4 histor$7)	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/22 08:48 AM
L263	1	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND normal WITH (human person automat$7 bot) WITH compar$4 near4 (prior previous$4 histor$7)	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/22 08:48 AM
L264	9	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND normal WITH (human person automat$7 bot) WITH captcha	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/22 08:48 AM
L265	11	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND captcha WITH (human person automat$7 bot) WITH compar$4 near4 (prior previous$4 histor$7)	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/22 08:48 AM
L266	124	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND captcha WITH (human person automat$7 bot) WITH	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/22 08:48 AM

		(prior previous$4 histor$7)					
L267	432	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND captcha AND (human person automat$7 bot) WITH (prior previous$4 histor$7)	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/22 08:48 AM
L268	7070	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc.	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/22 08:48 AM
L269	16	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND captcha AND (passive).clm.	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/02/22 09:13 AM
L270	12	("5375244" "7680891" "7945952" "8056129" "8413250" "8938395" "20060015390" "20070038568" "20080127302" "20090044264" "20100070620" "20150112892").pn.	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/22 09:23 AM
L271	1	"20080114624".pn.	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/22 05:26 PM
L272	38	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND captcha AND (cookie).clm.	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO;	OR	ON	ON	2023/02/24 10:25 AM

			JPO; DERWENT; IBM_TDB)				
L273	50	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND captcha AND (human person automat$7 bot) WITH (prior previous$4 histor$7) WITH cookie	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/24 10:26 AM
L274	80	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND captcha AND (human person automat$7 bot) WITH cookie	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/24 10:27 AM
L275	162	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND (human person automat$7 bot) WITH cookie	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/24 10:27 AM
L276	44	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND (human person automat$7 bot) WITH normal near3 behav$4	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/24 10:38 AM
L277	33	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND (human) WITH (histor$7 prior pverious) near3 behav$4	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/24 10:41 AM
L278	61	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND (human bot machine) WITH (histor$7 prior pverious) near3 behav$4	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/24 10:42 AM
L279	68	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND (human bot machine) WITH (histor$7 prior previous) near3 behav$4	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/24 10:42 AM

L280	164	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood	(US-PGPUB; USPAT)	OR	ON	ON	2023/05/09 10:45 AM
L281	48	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood AND human WITH model	(US-PGPUB; USPAT)	OR	ON	ON	2023/05/09 10:45 AM
L282	19	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood SAME human WITH model	(US-PGPUB; USPAT)	OR	ON	ON	2023/05/09 10:45 AM
L283	7	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood SAME human near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2023/05/09 10:45 AM
L284	33	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood AND human near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2023/05/09 10:45 AM
L285	100	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND captcha AND human near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2023/05/09 10:45 AM
L286	235	captcha AND human near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2023/05/09 10:45 AM
L287	1	"20060280339".pn.	(US-PGPUB; USPAT)	OR	ON	ON	2023/05/09 10:45 AM
L288	22	("5933498" "6460141" "7506170" "8694244" "8700259" "8706405" "8713657" "8738287" "8775235" "8775236" "8824659" "8825379" "8903052" "9047458" "9088652" "9152381" "9208461" "9240078" "9595008" "20080225870"	(US-PGPUB; USPAT)	OR	ON	ON	2023/05/09 10:45 AM

		"20090197815" "20130019290").pn.					
L289	0	human ADJ proof near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2023/05/09 10:45 AM
L290	4	human ADJ proof WITH model	(US-PGPUB; USPAT)	OR	ON	ON	2023/05/09 10:45 AM
L291	38	human ADJ proof SAME model	(US-PGPUB; USPAT)	OR	ON	ON	2023/05/09 10:45 AM
L292	43	human ADJ proof AND human near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2023/05/09 10:45 AM
L293	61	human ADJ proof AND human WITH model	(US-PGPUB; USPAT)	OR	ON	ON	2023/05/09 10:45 AM
L294	799	human ADJ proof AND human WITH model	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/05/09 10:45 AM
L295	799	human ADJ proof AND human WITH model	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/05/09 10:45 AM
L296	496	human ADJ proof SAME model	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO,	OR	ON	ON	2023/05/09 10:45 AM

			RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)				
L297	288	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/05/09 10:45 AM
L298	22	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood WITH model	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/05/09 10:45 AM
L299	141	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human near3 likelihood	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/05/09 10:45 AM
L300	41597	(G06N7/005 G06F21/316 G06F21/50	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY,	OR	ON	ON	2023/05/09 10:45 AM

		G06F2221/2133).cpc. grant$4 near2 access WITH human	CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)				
L301	186	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND grant$4 near2 access WITH human	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/05/09 10:45 AM
L302	164	(G06F2221/2133).cpc. AND grant$4 near2 access WITH human	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/05/09 10:45 AM
L303	203	(G06F2221/2133).cpc. AND allow$4 near2 access WITH human	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH,	OR	ON	ON	2023/05/09 10:45 AM

			TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)				
L304	164	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood	(US-PGPUB; USPAT)	OR	ON	ON	2023/05/09 10:45 AM
L305	48	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood AND human WITH model	(US-PGPUB; USPAT)	OR	ON	ON	2023/05/09 10:45 AM
L306	19	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood SAME human WITH model	(US-PGPUB; USPAT)	OR	ON	ON	2023/05/09 10:45 AM
L307	7	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood SAME human near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2023/05/09 10:45 AM
L308	33	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood AND human near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2023/05/09 10:45 AM
L309	100	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND captcha AND human near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2023/05/09 10:45 AM
L310	235	captcha AND human near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2023/05/09 10:45 AM
L311	1	"20060280339".pn.	(US-PGPUB; USPAT)	OR	ON	ON	2023/05/09 10:45 AM
L312	22	("5933498" "6460141" "7506170" "8694244" "8700259" "8706405" "8713657" "8738287" "8775235" "8775236" "8824659" "8825379" "8903052" "9047458"	(US-PGPUB; USPAT)	OR	ON	ON	2023/05/09 10:45 AM

		"9088652" "9152381" "9208461" "9240078" "9595008" "20080225870" "20090197815" "20130019290").pn.					
L313	0	human ADJ proof near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2023/05/09 10:45 AM
L314	4	human ADJ proof WITH model	(US-PGPUB; USPAT)	OR	ON	ON	2023/05/09 10:45 AM
L315	38	human ADJ proof SAME model	(US-PGPUB; USPAT)	OR	ON	ON	2023/05/09 10:45 AM
L316	43	human ADJ proof AND human near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2023/05/09 10:45 AM
L317	61	human ADJ proof AND human WITH model	(US-PGPUB; USPAT)	OR	ON	ON	2023/05/09 10:45 AM
L318	799	human ADJ proof AND human WITH model	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/05/09 10:45 AM
L319	799	human ADJ proof AND human WITH model	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/05/09 10:45 AM
L320	496	human ADJ proof SAME model	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS,	OR	ON	ON	2023/05/09 10:45 AM

			IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)				
L321	288	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/05/09 10:45 AM
L322	22	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood WITH model	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/05/09 10:45 AM
L323	141	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human near3 likelihood	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/05/09 10:45 AM

L324	41597	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. grant$4 near2 access WITH human	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/05/09 10:45 AM
L325	186	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND grant$4 near2 access WITH human	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/05/09 10:45 AM
L326	164	(G06F2221/2133).cpc. AND grant$4 near2 access WITH human	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/05/09 10:45 AM
L327	203	(G06F2221/2133).cpc. AND allow$4 near2 access WITH human	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL,	OR	ON	ON	2023/05/09 10:45 AM

			NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)				
L328	1	"10423885".pn.	(US-PGPUB; USPAT)	OR	ON	ON	2023/05/09 10:45 AM
L329	1	"8713657".pn.	(US-PGPUB; USPAT)	OR	ON	ON	2023/05/09 10:45 AM
L330	1	"20130019290".pn.	(US-PGPUB; USPAT)	OR	ON	ON	2023/05/09 10:45 AM
L331	18	("6405922" "7089241" "7895653" "8280993" "8838570" "20050198158" "20050278253" "20070106737" "20070165911" "20070192419" "20070239604" "20070255818" "20070255821" "20080086524" "20080114624" "20080147456" "20080319774" "20090024971").pn.	(US-PGPUB; USPAT)	OR	ON	ON	2023/05/09 10:45 AM
L332	13	("6405922" "7089241" "7895653" "8280993" "8838570" "20050198158" "20050278253" "20070106737" "20070165911" "20070192419" "20070239604" "20070255818" "20070255821" "20080086524" "20080114624" "20080147456" "20080319774" "20090024971").pn. AND (likel$7 probab$7)	(US-PGPUB; USPAT)	OR	ON	ON	2023/05/09 10:45 AM
L333	8	("6405922" "7089241" "7895653" "8280993" "8838570" "20050198158" "20050278253" "20070106737" "20070165911" "20070192419" "20070239604" "20070255818"	(US-PGPUB; USPAT)	OR	ON	ON	2023/05/09 10:45 AM

		"20070255821" "20080086524" "20080114624" "20080147456" "20080319774" "20090024971").pn. AND (likel$7 probab$7) WITH (human person automat$7)					
L334	21215	activ$4 WITH passiv$4 AND (likel$7 probab$7) WITH (human person automat$7)	(US-PGPUB; USPAT)	OR	ON	ON	2023/05/09 10:45 AM
L335	119	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND activ$4 WITH passiv$4 AND (likel$7 probab$7) WITH (human person automat$7 bot)	(US-PGPUB; USPAT)	OR	ON	ON	2023/05/09 10:45 AM
L336	22	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND activ$4 WITH passiv$4 AND (likel$7 probab$7) WITH (human person automat$7 bot) AND captcha	(US-PGPUB; USPAT)	OR	ON	ON	2023/05/09 10:45 AM
L337	6	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND activ$4 WITH passiv$4 AND (likel$7 probab$7) WITH (human person automat$7 bot) WITH compar$4 WITH (prior previous$4 histor$7)	(US-PGPUB; USPAT)	OR	ON	ON	2023/05/09 10:45 AM
L338	13	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND (likel$7 probab$7) WITH (human person automat$7 bot) WITH compar$4 WITH (prior previous$4 histor$7)	(US-PGPUB; USPAT)	OR	ON	ON	2023/05/09 10:45 AM
L339	296	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc.	(US-PGPUB; USPAT)	OR	ON	ON	2023/05/09 10:45 AM

		AND (human person automat$7 bot) WITH compar$4 WITH (prior previous$4 histor$7)					
L340	87	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND (human person automat$7 bot) WITH compar$4 near4 (prior previous$4 histor$7)	(US-PGPUB; USPAT)	OR	ON	ON	2023/05/09 10:45 AM
L341	1	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND normal WITH (human person automat$7 bot) WITH compar$4 near4 (prior previous$4 histor$7)	(US-PGPUB; USPAT)	OR	ON	ON	2023/05/09 10:45 AM
L342	9	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND normal WITH (human person automat$7 bot) WITH captcha	(US-PGPUB; USPAT)	OR	ON	ON	2023/05/09 10:45 AM
L343	11	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND captcha WITH (human person automat$7 bot) WITH compar$4 near4 (prior previous$4 histor$7)	(US-PGPUB; USPAT)	OR	ON	ON	2023/05/09 10:45 AM
L344	125	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND captcha WITH (human person automat$7 bot) WITH (prior previous$4 histor$7)	(US-PGPUB; USPAT)	OR	ON	ON	2023/05/09 10:45 AM
L345	435	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND captcha AND (human person automat$7 bot) WITH (prior previous$4 histor$7)	(US-PGPUB; USPAT)	OR	ON	ON	2023/05/09 10:45 AM

L346	7186	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc.	(US-PGPUB; USPAT)	OR	ON	ON	2023/05/09 10:45 AM
L347	164	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood	(US-PGPUB; USPAT)	OR	ON	ON	2023/05/09 10:45 AM
L348	48	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood AND human WITH model	(US-PGPUB; USPAT)	OR	ON	ON	2023/05/09 10:45 AM
L349	19	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood SAME human WITH model	(US-PGPUB; USPAT)	OR	ON	ON	2023/05/09 10:45 AM
L350	7	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood SAME human near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2023/05/09 10:45 AM
L351	33	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood AND human near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2023/05/09 10:45 AM
L352	100	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND captcha AND human near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2023/05/09 10:45 AM
L353	235	captcha AND human near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2023/05/09 10:45 AM
L354	1	"20060280339".pn.	(US-PGPUB; USPAT)	OR	ON	ON	2023/05/09 10:45 AM
L355	22	("5933498" "6460141" "7506170" "8694244" "8700259" "8706405" "8713657" "8738287" "8775235" "8775236" "8824659" "8825379" "8903052" "9047458"	(US-PGPUB; USPAT)	OR	ON	ON	2023/05/09 10:45 AM

		"9088652" "9152381" "9208461" "9240078" "9595008" "20080225870" "20090197815" "20130019290").pn.					
L356	0	human ADJ proof near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2023/05/09 10:45 AM
L357	4	human ADJ proof WITH model	(US-PGPUB; USPAT)	OR	ON	ON	2023/05/09 10:45 AM
L358	38	human ADJ proof SAME model	(US-PGPUB; USPAT)	OR	ON	ON	2023/05/09 10:45 AM
L359	43	human ADJ proof AND human near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2023/05/09 10:45 AM
L360	61	human ADJ proof AND human WITH model	(US-PGPUB; USPAT)	OR	ON	ON	2023/05/09 10:45 AM
L361	799	human ADJ proof AND human WITH model	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/05/09 10:45 AM
L362	799	human ADJ proof AND human WITH model	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/05/09 10:45 AM
L363	496	human ADJ proof SAME model	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS,	OR	ON	ON	2023/05/09 10:45 AM

			IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)				
L364	288	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/05/09 10:45 AM
L365	22	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood WITH model	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/05/09 10:45 AM
L366	141	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human near3 likelihood	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/05/09 10:45 AM

L367	41597	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. grant$4 near2 access WITH human	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/05/09 10:45 AM
L368	186	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND grant$4 near2 access WITH human	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/05/09 10:45 AM
L369	164	(G06F2221/2133).cpc. AND grant$4 near2 access WITH human	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/05/09 10:45 AM
L370	203	(G06F2221/2133).cpc. AND allow$4 near2 access WITH human	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL,	OR	ON	ON	2023/05/09 10:45 AM

			NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)				
L371	164	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood	(US-PGPUB; USPAT)	OR	ON	ON	2023/05/09 10:45 AM
L372	48	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood AND human WITH model	(US-PGPUB; USPAT)	OR	ON	ON	2023/05/09 10:45 AM
L373	19	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood SAME human WITH model	(US-PGPUB; USPAT)	OR	ON	ON	2023/05/09 10:45 AM
L374	7	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood SAME human near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2023/05/09 10:45 AM
L375	33	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood AND human near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2023/05/09 10:45 AM
L376	100	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND captcha AND human near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2023/05/09 10:45 AM
L377	235	captcha AND human near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2023/05/09 10:45 AM
L378	1	"20060280339".pn.	(US-PGPUB; USPAT)	OR	ON	ON	2023/05/09 10:45 AM
L379	22	("5933498" "6460141" "7506170" "8694244" "8700259" "8706405" "8713657" "8738287"	(US-PGPUB; USPAT)	OR	ON	ON	2023/05/09 10:45 AM

		"8775235" "8775236" "8824659" "8825379" "8903052" "9047458" "9088652" "9152381" "9208461" "9240078" "9595008" "20080225870" "20090197815" "20130019290").pn.					
L380	0	human ADJ proof near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2023/05/09 10:45 AM
L381	4	human ADJ proof WITH model	(US-PGPUB; USPAT)	OR	ON	ON	2023/05/09 10:45 AM
L382	38	human ADJ proof SAME model	(US-PGPUB; USPAT)	OR	ON	ON	2023/05/09 10:45 AM
L383	43	human ADJ proof AND human near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2023/05/09 10:45 AM
L384	61	human ADJ proof AND human WITH model	(US-PGPUB; USPAT)	OR	ON	ON	2023/05/09 10:45 AM
L385	799	human ADJ proof AND human WITH model	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/05/09 10:45 AM
L386	799	human ADJ proof AND human WITH model	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/05/09 10:45 AM
L387	496	human ADJ proof SAME model	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU,	OR	ON	ON	2023/05/09 10:45 AM

			CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)				
L388	288	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/05/09 10:45 AM
L389	22	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood WITH model	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/05/09 10:45 AM
L390	141	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human near3 likelihood	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN,	OR	ON	ON	2023/05/09 10:45 AM

			WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)				
L391	41597	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. grant$4 near2 access WITH human	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/05/09 10:45 AM
L392	186	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND grant$4 near2 access WITH human	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/05/09 10:45 AM
L393	164	(G06F2221/2133).cpc. AND grant$4 near2 access WITH human	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/05/09 10:45 AM
L394	203	(G06F2221/2133).cpc. AND allow$4 near2 access WITH human	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB,	OR	ON	ON	2023/05/09 10:45 AM

			HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)				
L395	1	"10423885".pn.	(US-PGPUB; USPAT)	OR	ON	ON	2023/05/09 10:45 AM
L396	1	"8713657".pn.	(US-PGPUB; USPAT)	OR	ON	ON	2023/05/09 10:45 AM
L397	1	"20130019290".pn.	(US-PGPUB; USPAT)	OR	ON	ON	2023/05/09 10:45 AM
L398	18	("6405922" "7089241" "7895653" "8280993" "8838570" "20050198158" "20050278253" "20070106737" "20070165911" "20070192419" "20070239604" "20070255818" "20070255821" "20080086524" "20080114624" "20080147456" "20080319774" "20090024971").pn.	(US-PGPUB; USPAT)	OR	ON	ON	2023/05/09 10:45 AM
L399	13	("6405922" "7089241" "7895653" "8280993" "8838570" "20050198158" "20050278253" "20070106737" "20070165911" "20070192419" "20070239604" "20070255818" "20070255821" "20080086524" "20080114624" "20080147456" "20080319774" "20090024971").pn. AND (likel$7 probab$7)	(US-PGPUB; USPAT)	OR	ON	ON	2023/05/09 10:45 AM
L400	8	("6405922" "7089241" "7895653" "8280993" "8838570" "20050198158" "20050278253" "20070106737" "20070165911"	(US-PGPUB; USPAT)	OR	ON	ON	2023/05/09 10:45 AM

		"20070192419" "20070239604" "20070255818" "20070255821" "20080086524" "20080114624" "20080147456" "20080319774" "20090024971").pn. AND (likel$7 probab$7) WITH (human person automat$7)					
L401	21215	activ$4 WITH passiv$4 AND (likel$7 probab$7) WITH (human person automat$7)	(US-PGPUB; USPAT)	OR	ON	ON	2023/05/09 10:45 AM
L402	119	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND activ$4 WITH passiv$4 AND (likel$7 probab$7) WITH (human person automat$7 bot)	(US-PGPUB; USPAT)	OR	ON	ON	2023/05/09 10:45 AM
L403	22	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND activ$4 WITH passiv$4 AND (likel$7 probab$7) WITH (human person automat$7 bot) AND captcha	(US-PGPUB; USPAT)	OR	ON	ON	2023/05/09 10:45 AM
L404	6	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND activ$4 WITH passiv$4 AND (likel$7 probab$7) WITH (human person automat$7 bot) WITH compar$4 WITH (prior previous$4 histor$7)	(US-PGPUB; USPAT)	OR	ON	ON	2023/05/09 10:45 AM
L405	13	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND (likel$7 probab$7) WITH (human person automat$7 bot) WITH compar$4 WITH (prior previous$4 histor$7)	(US-PGPUB; USPAT)	OR	ON	ON	2023/05/09 10:45 AM
L406	296	(G06N7/005 OR	(US-PGPUB; USPAT)	OR	ON	ON	2023/05/09

		G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND (human person automat$7 bot) WITH compar$4 WITH (prior previous$4 histor$7)					10:45 AM
L407	87	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND (human person automat$7 bot) WITH compar$4 near4 (prior previous$4 histor$7)	(US-PGPUB; USPAT)	OR	ON	ON	2023/05/09 10:45 AM
L408	1	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND normal WITH (human person automat$7 bot) WITH compar$4 near4 (prior previous$4 histor$7)	(US-PGPUB; USPAT)	OR	ON	ON	2023/05/09 10:45 AM
L409	9	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND normal WITH (human person automat$7 bot) WITH captcha	(US-PGPUB; USPAT)	OR	ON	ON	2023/05/09 10:45 AM
L410	11	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND captcha WITH (human person automat$7 bot) WITH compar$4 near4 (prior previous$4 histor$7)	(US-PGPUB; USPAT)	OR	ON	ON	2023/05/09 10:45 AM
L411	125	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND captcha WITH (human person automat$7 bot) WITH (prior previous$4 histor$7)	(US-PGPUB; USPAT)	OR	ON	ON	2023/05/09 10:45 AM
L412	435	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND captcha AND (human person	(US-PGPUB; USPAT)	OR	ON	ON	2023/05/09 10:45 AM

		automat$7 bot) WITH (prior previous$4 histor$7)					
L413	7186	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc.	(US-PGPUB; USPAT)	OR	ON	ON	2023/05/09 10:45 AM
L414	164	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood	(US-PGPUB; USPAT)	OR	ON	ON	2023/05/09 10:45 AM
L415	48	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood AND human WITH model	(US-PGPUB; USPAT)	OR	ON	ON	2023/05/09 10:45 AM
L416	19	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood SAME human WITH model	(US-PGPUB; USPAT)	OR	ON	ON	2023/05/09 10:45 AM
L417	7	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood SAME human near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2023/05/09 10:45 AM
L418	33	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood AND human near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2023/05/09 10:45 AM
L419	100	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND captcha AND human near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2023/05/09 10:45 AM
L420	235	captcha AND human near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2023/05/09 10:45 AM
L421	1	"20060280339".pn.	(US-PGPUB; USPAT)	OR	ON	ON	2023/05/09 10:45 AM
L422	22	("5933498" "6460141" "7506170" "8694244" "8700259" "8706405" "8713657" "8738287"	(US-PGPUB; USPAT)	OR	ON	ON	2023/05/09 10:45 AM

		"8775235" "8775236" "8824659" "8825379" "8903052" "9047458" "9088652" "9152381" "9208461" "9240078" "9595008" "20080225870" "20090197815" "20130019290").pn.					
L423	0	human ADJ proof near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2023/05/09 10:45 AM
L424	4	human ADJ proof WITH model	(US-PGPUB; USPAT)	OR	ON	ON	2023/05/09 10:45 AM
L425	38	human ADJ proof SAME model	(US-PGPUB; USPAT)	OR	ON	ON	2023/05/09 10:45 AM
L426	43	human ADJ proof AND human near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2023/05/09 10:45 AM
L427	61	human ADJ proof AND human WITH model	(US-PGPUB; USPAT)	OR	ON	ON	2023/05/09 10:45 AM
L428	799	human ADJ proof AND human WITH model	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/05/09 10:45 AM
L429	799	human ADJ proof AND human WITH model	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/05/09 10:45 AM
L430	496	human ADJ proof SAME model	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU,	OR	ON	ON	2023/05/09 10:45 AM

			CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)				
L431	288	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/05/09 10:45 AM
L432	22	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood WITH model	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/05/09 10:45 AM
L433	141	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human near3 likelihood	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN,	OR	ON	ON	2023/05/09 10:45 AM

			WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)				
L434	41597	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. grant$4 near2 access WITH human	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/05/09 10:45 AM
L435	186	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND grant$4 near2 access WITH human	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/05/09 10:45 AM
L436	164	(G06F2221/2133).cpc. AND grant$4 near2 access WITH human	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/05/09 10:45 AM
L437	203	(G06F2221/2133).cpc. AND allow$4 near2 access WITH human	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB,	OR	ON	ON	2023/05/09 10:45 AM

			HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)				
L438	164	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood	(US-PGPUB; USPAT)	OR	ON	ON	2023/05/09 10:45 AM
L439	48	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood AND human WITH model	(US-PGPUB; USPAT)	OR	ON	ON	2023/05/09 10:45 AM
L440	19	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood SAME human WITH model	(US-PGPUB; USPAT)	OR	ON	ON	2023/05/09 10:45 AM
L441	7	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood SAME human near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2023/05/09 10:45 AM
L442	33	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood AND human near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2023/05/09 10:45 AM
L443	100	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND captcha AND human near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2023/05/09 10:45 AM
L444	235	captcha AND human near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2023/05/09 10:45 AM
L445	1	"20060280339".pn.	(US-PGPUB; USPAT)	OR	ON	ON	2023/05/09 10:45 AM
L446	22	("5933498" "6460141"	(US-PGPUB; USPAT)	OR	ON	ON	2023/05/09

		"7506170" "8694244" "8700259" "8706405" "8713657" "8738287" "8775235" "8775236" "8824659" "8825379" "8903052" "9047458" "9088652" "9152381" "9208461" "9240078" "9595008" "20080225870" "20090197815" "20130019290").pn.					10:45 AM
L447	0	human ADJ proof near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2023/05/09 10:45 AM
L448	4	human ADJ proof WITH model	(US-PGPUB; USPAT)	OR	ON	ON	2023/05/09 10:45 AM
L449	38	human ADJ proof SAME model	(US-PGPUB; USPAT)	OR	ON	ON	2023/05/09 10:45 AM
L450	43	human ADJ proof AND human near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2023/05/09 10:45 AM
L451	61	human ADJ proof AND human WITH model	(US-PGPUB; USPAT)	OR	ON	ON	2023/05/09 10:45 AM
L452	799	human ADJ proof AND human WITH model	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/05/09 10:45 AM
L453	799	human ADJ proof AND human WITH model	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/05/09 10:45 AM
L454	496	human ADJ proof	(US-PGPUB; USPAT;	OR	ON	ON	2023/05/09

		SAME model	USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)				10:45 AM
L455	288	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/05/09 10:45 AM
L456	22	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood WITH model	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/05/09 10:45 AM
L457	141	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human near3 likelihood	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL,	OR	ON	ON	2023/05/09 10:45 AM

			PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)				
L458	41597	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. grant$4 near2 access WITH human	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/05/09 10:45 AM
L459	186	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND grant$4 near2 access WITH human	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/05/09 10:45 AM
L460	164	(G06F2221/2133).cpc. AND grant$4 near2 access WITH human	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/05/09 10:45 AM
L461	203	(G06F2221/2133).cpc. AND allow$4 near2 access WITH human	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY,	OR	ON	ON	2023/05/09 10:45 AM

			CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)				
L462	1	"10423885".pn.	(US-PGPUB; USPAT)	OR	ON	ON	2023/05/09 10:45 AM
L463	1	"8713657".pn.	(US-PGPUB; USPAT)	OR	ON	ON	2023/05/09 10:45 AM
L464	1	"20130019290".pn.	(US-PGPUB; USPAT)	OR	ON	ON	2023/05/09 10:45 AM
L465	18	("6405922" "7089241" "7895653" "8280993" "8838570" "20050198158" "20050278253" "20070106737" "20070165911" "20070192419" "20070239604" "20070255818" "20070255821" "20080086524" "20080114624" "20080147456" "20080319774" "20090024971").pn.	(US-PGPUB; USPAT)	OR	ON	ON	2023/05/09 10:45 AM
L466	13	("6405922" "7089241" "7895653" "8280993" "8838570" "20050198158" "20050278253" "20070106737" "20070165911" "20070192419" "20070239604" "20070255818" "20070255821" "20080086524" "20080114624" "20080147456" "20080319774" "20090024971").pn. AND (likel$7 probab$7)	(US-PGPUB; USPAT)	OR	ON	ON	2023/05/09 10:45 AM
L467	8	("6405922" "7089241" "7895653" "8280993" "8838570" "20050198158"	(US-PGPUB; USPAT)	OR	ON	ON	2023/05/09 10:45 AM

		"20050278253" "20070106737" "20070165911" "20070192419" "20070239604" "20070255818" "20070255821" "20080086524" "20080114624" "20080147456" "20080319774" "20090024971").pn. AND (likel$7 probab$7) WITH (human person automat$7)					
L468	21215	activ$4 WITH passiv$4 AND (likel$7 probab$7) WITH (human person automat$7)	(US-PGPUB; USPAT)	OR	ON	ON	2023/05/09 10:45 AM
L469	119	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND activ$4 WITH passiv$4 AND (likel$7 probab$7) WITH (human person automat$7 bot)	(US-PGPUB; USPAT)	OR	ON	ON	2023/05/09 10:45 AM
L470	22	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND activ$4 WITH passiv$4 AND (likel$7 probab$7) WITH (human person automat$7 bot) AND captcha	(US-PGPUB; USPAT)	OR	ON	ON	2023/05/09 10:45 AM
L471	6	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND activ$4 WITH passiv$4 AND (likel$7 probab$7) WITH (human person automat$7 bot) WITH compar$4 WITH (prior previous$4 histor$7)	(US-PGPUB; USPAT)	OR	ON	ON	2023/05/09 10:45 AM
L472	13	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND (likel$7 probab$7) WITH (human person automat$7 bot) WITH	(US-PGPUB; USPAT)	OR	ON	ON	2023/05/09 10:45 AM

		compar$4 WITH (prior previous$4 histor$7)					
L473	296	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND (human person automat$7 bot) WITH compar$4 WITH (prior previous$4 histor$7)	(US-PGPUB; USPAT)	OR	ON	ON	2023/05/09 10:45 AM
L474	87	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND (human person automat$7 bot) WITH compar$4 near4 (prior previous$4 histor$7)	(US-PGPUB; USPAT)	OR	ON	ON	2023/05/09 10:45 AM
L475	1	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND normal WITH (human person automat$7 bot) WITH compar$4 near4 (prior previous$4 histor$7)	(US-PGPUB; USPAT)	OR	ON	ON	2023/05/09 10:45 AM
L476	9	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND normal WITH (human person automat$7 bot) WITH captcha	(US-PGPUB; USPAT)	OR	ON	ON	2023/05/09 10:45 AM
L477	11	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND captcha WITH (human person automat$7 bot) WITH compar$4 near4 (prior previous$4 histor$7)	(US-PGPUB; USPAT)	OR	ON	ON	2023/05/09 10:45 AM
L478	125	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND captcha WITH (human person automat$7 bot) WITH (prior previous$4 histor$7)	(US-PGPUB; USPAT)	OR	ON	ON	2023/05/09 10:45 AM
L479	435	(G06N7/005 OR G06F21/316 OR G06F21/50 OR	(US-PGPUB; USPAT)	OR	ON	ON	2023/05/09 10:45 AM

		G06F2221/2133).cpc. AND captcha AND (human person automat$7 bot) WITH (prior previous$4 histor$7)					
L480	7186	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc.	(US-PGPUB; USPAT)	OR	ON	ON	2023/05/09 10:45 AM
L481	164	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood	(US-PGPUB; USPAT)	OR	ON	ON	2023/05/09 10:45 AM
L482	48	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood AND human WITH model	(US-PGPUB; USPAT)	OR	ON	ON	2023/05/09 10:45 AM
L483	19	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood SAME human WITH model	(US-PGPUB; USPAT)	OR	ON	ON	2023/05/09 10:45 AM
L484	7	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood SAME human near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2023/05/09 10:45 AM
L485	33	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood AND human near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2023/05/09 10:45 AM
L486	100	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND captcha AND human near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2023/05/09 10:45 AM
L487	235	captcha AND human near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2023/05/09 10:45 AM
L488	1	"20060280339".pn.	(US-PGPUB; USPAT)	OR	ON	ON	2023/05/09 10:45 AM
L489	22	("5933498" "6460141"	(US-PGPUB; USPAT)	OR	ON	ON	2023/05/09

		"7506170" "8694244" "8700259" "8706405" "8713657" "8738287" "8775235" "8775236" "8824659" "8825379" "8903052" "9047458" "9088652" "9152381" "9208461" "9240078" "9595008" "20080225870" "20090197815" "20130019290").pn.					10:45 AM
L490	0	human ADJ proof near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2023/05/09 10:45 AM
L491	4	human ADJ proof WITH model	(US-PGPUB; USPAT)	OR	ON	ON	2023/05/09 10:45 AM
L492	38	human ADJ proof SAME model	(US-PGPUB; USPAT)	OR	ON	ON	2023/05/09 10:45 AM
L493	43	human ADJ proof AND human near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2023/05/09 10:45 AM
L494	61	human ADJ proof AND human WITH model	(US-PGPUB; USPAT)	OR	ON	ON	2023/05/09 10:45 AM
L495	799	human ADJ proof AND human WITH model	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/05/09 10:45 AM
L496	799	human ADJ proof AND human WITH model	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/05/09 10:45 AM
L497	496	human ADJ proof	(US-PGPUB; USPAT;	OR	ON	ON	2023/05/09

		SAME model	USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)				10:45 AM
L498	288	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/05/09 10:45 AM
L499	22	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood WITH model	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/05/09 10:45 AM
L500	141	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human near3 likelihood	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL,	OR	ON	ON	2023/05/09 10:45 AM

			PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)				
L501	41597	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. grant$4 near2 access WITH human	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/05/09 10:45 AM
L502	186	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND grant$4 near2 access WITH human	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/05/09 10:45 AM
L503	164	(G06F2221/2133).cpc. AND grant$4 near2 access WITH human	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/05/09 10:45 AM
L504	203	(G06F2221/2133).cpc. AND allow$4 near2	(US-PGPUB; USPAT; USOCR; FIT (AP, AT,	OR	ON	ON	2023/05/09 10:45 AM

		access WITH human	AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)				
L505	164	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood	(US-PGPUB; USPAT)	OR	ON	ON	2023/05/09 10:45 AM
L506	48	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood AND human WITH model	(US-PGPUB; USPAT)	OR	ON	ON	2023/05/09 10:45 AM
L507	19	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood SAME human WITH model	(US-PGPUB; USPAT)	OR	ON	ON	2023/05/09 10:45 AM
L508	7	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood SAME human near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2023/05/09 10:45 AM
L509	33	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood AND human near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2023/05/09 10:45 AM
L510	100	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND captcha AND human near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2023/05/09 10:45 AM
L511	235	captcha AND human near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2023/05/09 10:45 AM

L512	1	"20060280339".pn.	(US-PGPUB; USPAT)	OR	ON	ON	2023/05/09 10:45 AM
L513	22	("5933498" "6460141" "7506170" "8694244" "8700259" "8706405" "8713657" "8738287" "8775235" "8775236" "8824659" "8825379" "8903052" "9047458" "9088652" "9152381" "9208461" "9240078" "9595008" "20080225870" "20090197815" "20130019290").pn.	(US-PGPUB; USPAT)	OR	ON	ON	2023/05/09 10:45 AM
L514	0	human ADJ proof near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2023/05/09 10:45 AM
L515	4	human ADJ proof WITH model	(US-PGPUB; USPAT)	OR	ON	ON	2023/05/09 10:45 AM
L516	38	human ADJ proof SAME model	(US-PGPUB; USPAT)	OR	ON	ON	2023/05/09 10:45 AM
L517	43	human ADJ proof AND human near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2023/05/09 10:45 AM
L518	61	human ADJ proof AND human WITH model	(US-PGPUB; USPAT)	OR	ON	ON	2023/05/09 10:45 AM
L519	799	human ADJ proof AND human WITH model	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/05/09 10:45 AM
L520	799	human ADJ proof AND human WITH model	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO;	OR	ON	ON	2023/05/09 10:45 AM

			JPO; DERWENT; IBM_TDB)				
L521	496	human ADJ proof SAME model	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/05/09 10:45 AM
L522	288	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/05/09 10:45 AM
L523	22	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood WITH model	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/05/09 10:45 AM
L524	141	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human near3 likelihood	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS,	OR	ON	ON	2023/05/09 10:45 AM

			IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)				
L525	41597	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. grant$4 near2 access WITH human	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/05/09 10:45 AM
L526	186	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND grant$4 near2 access WITH human	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/05/09 10:45 AM
L527	164	(G06F2221/2133).cpc. AND grant$4 near2 access WITH human	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/05/09 10:45 AM

L528	203	(G06F2221/2133).cpc. AND allow$4 near2 access WITH human	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/05/09 10:45 AM
L529	1	"10423885".pn.	(US-PGPUB; USPAT)	OR	ON	ON	2023/05/09 10:45 AM
L530	1	"8713657".pn.	(US-PGPUB; USPAT)	OR	ON	ON	2023/05/09 10:45 AM
L531	1	"20130019290".pn.	(US-PGPUB; USPAT)	OR	ON	ON	2023/05/09 10:45 AM
L532	18	("6405922" "7089241" "7895653" "8280993" "8838570" "20050198158" "20050278253" "20070106737" "20070165911" "20070192419" "20070239604" "20070255818" "20070255821" "20080086524" "20080114624" "20080147456" "20080319774" "20090024971").pn.	(US-PGPUB; USPAT)	OR	ON	ON	2023/05/09 10:45 AM
L533	13	("6405922" "7089241" "7895653" "8280993" "8838570" "20050198158" "20050278253" "20070106737" "20070165911" "20070192419" "20070239604" "20070255818" "20070255821" "20080086524" "20080114624" "20080147456" "20080319774" "20090024971").pn. AND (likel$7 probab$7)	(US-PGPUB; USPAT)	OR	ON	ON	2023/05/09 10:45 AM
L534	8	("6405922" "7089241"	(US-PGPUB; USPAT)	OR	ON	ON	2023/05/09

		"7895653" "8280993" "8838570" "20050198158" "20050278253" "20070106737" "20070165911" "20070192419" "20070239604" "20070255818" "20070255821" "20080086524" "20080114624" "20080147456" "20080319774" "20090024971").pn. AND (likel$7 probab$7) WITH (human person automat$7)					10:45 AM
L535	21215	activ$4 WITH passiv$4 AND (likel$7 probab$7) WITH (human person automat$7)	(US-PGPUB; USPAT)	OR	ON	ON	2023/05/09 10:45 AM
L536	119	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND activ$4 WITH passiv$4 AND (likel$7 probab$7) WITH (human person automat$7 bot)	(US-PGPUB; USPAT)	OR	ON	ON	2023/05/09 10:45 AM
L537	22	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND activ$4 WITH passiv$4 AND (likel$7 probab$7) WITH (human person automat$7 bot) AND captcha	(US-PGPUB; USPAT)	OR	ON	ON	2023/05/09 10:45 AM
L538	6	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND activ$4 WITH passiv$4 AND (likel$7 probab$7) WITH (human person automat$7 bot) WITH compar$4 WITH (prior previous$4 histor$7)	(US-PGPUB; USPAT)	OR	ON	ON	2023/05/09 10:45 AM
L539	13	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc.	(US-PGPUB; USPAT)	OR	ON	ON	2023/05/09 10:45 AM

		AND (likel$7 probab$7) WITH (human person automat$7 bot) WITH compar$4 WITH (prior previous$4 histor$7)					
L540	296	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND (human person automat$7 bot) WITH compar$4 WITH (prior previous$4 histor$7)	(US-PGPUB; USPAT)	OR	ON	ON	2023/05/09 10:45 AM
L541	87	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND (human person automat$7 bot) WITH compar$4 near4 (prior previous$4 histor$7)	(US-PGPUB; USPAT)	OR	ON	ON	2023/05/09 10:45 AM
L542	1	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND normal WITH (human person automat$7 bot) WITH compar$4 near4 (prior previous$4 histor$7)	(US-PGPUB; USPAT)	OR	ON	ON	2023/05/09 10:45 AM
L543	9	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND normal WITH (human person automat$7 bot) WITH captcha	(US-PGPUB; USPAT)	OR	ON	ON	2023/05/09 10:45 AM
L544	11	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND captcha WITH (human person automat$7 bot) WITH compar$4 near4 (prior previous$4 histor$7)	(US-PGPUB; USPAT)	OR	ON	ON	2023/05/09 10:45 AM
L545	125	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND captcha WITH (human person automat$7 bot) WITH (prior previous$4 histor$7)	(US-PGPUB; USPAT)	OR	ON	ON	2023/05/09 10:45 AM

L546	435	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND captcha AND (human person automat$7 bot) WITH (prior previous$4 histor$7)	(US-PGPUB; USPAT)	OR	ON	ON	2023/05/09 10:45 AM
L547	7186	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc.	(US-PGPUB; USPAT)	OR	ON	ON	2023/05/09 10:45 AM
L548	16	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND captcha AND (passive).clm.	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/05/09 10:45 AM
L549	12	("5375244" "7680891" "7945952" "8056129" "8413250" "8938395" "20060015390" "20070038568" "20080127302" "20090044264" "20100070620" "20150112892").pn.	(US-PGPUB; USPAT)	OR	ON	ON	2023/05/09 10:45 AM
L550	1	"20080114624".pn.	(US-PGPUB; USPAT)	OR	ON	ON	2023/05/09 10:45 AM
L551	38	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND captcha AND (cookie).clm.	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/05/09 10:45 AM

L552	50	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND captcha AND (human person automat$7 bot) WITH (prior previous$4 histor$7) WITH cookie	(US-PGPUB; USPAT)	OR	ON	ON	2023/05/09 10:45 AM
L553	80	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND captcha AND (human person automat$7 bot) WITH cookie	(US-PGPUB; USPAT)	OR	ON	ON	2023/05/09 10:45 AM
L554	163	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND (human person automat$7 bot) WITH cookie	(US-PGPUB; USPAT)	OR	ON	ON	2023/05/09 10:45 AM
L555	47	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND (human person automat$7 bot) WITH normal near3 behav$4	(US-PGPUB; USPAT)	OR	ON	ON	2023/05/09 10:45 AM
L556	33	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND (human) WITH (histor$7 prior pverious) near3 behav$4	(US-PGPUB; USPAT)	OR	ON	ON	2023/05/09 10:45 AM
L557	62	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND (human bot machine) WITH (histor$7 prior pverious) near3 behav$4	(US-PGPUB; USPAT)	OR	ON	ON	2023/05/09 10:45 AM
L558	69	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND (human bot machine) WITH (histor$7 prior previous) near3 behav$4	(US-PGPUB; USPAT)	OR	ON	ON	2023/05/09 10:45 AM
L559	1	"20050278253".pn.	(US-PGPUB; USPAT)	OR	ON	ON	2023/05/09 02:07 PM

L560	62	captcha WITH geographic near3 location	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/05/09 02:18 PM
L561	0	captcha WITH geographic near3 location WITH prior	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/05/09 02:22 PM
L562	76	captcha AND geographic near3 location WITH prior	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/05/09 02:22 PM
L563	0	captcha SAME geographic near3 location WITH prior	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO,	OR	ON	ON	2023/05/09 02:22 PM

			MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)				
L564	0	captcha AND geographic near3 location WITH prior WITH human	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/05/09 02:22 PM
L565	10	captcha AND location WITH prior WITH human	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/05/09 02:22 PM
L566	47	location WITH prior WITH human near2 (proof prov$4)	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/05/09 08:19 PM
L567	40	captcha AND geographic near3	(US-PGPUB; USPAT; USOCR; FIT (AP, AT,	OR	ON	ON	2023/05/09 08:19 PM

		location WITH human	AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)				
L568	6395	geographic near3 location WITH human	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/05/09 08:20 PM
L569	120	geographic near3 location WITH human near2 (proof prov$4)	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/05/09 08:20 PM
L570	35	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND captcha AND (human person automat$7 bot) WITH geographic near3 location	(US-PGPUB; USPAT)	OR	ON	ON	2023/05/09 08:21 PM
L571	104	(G06N7/005 OR G06F21/316 OR	(US-PGPUB; USPAT)	OR	ON	ON	2023/05/09 08:21 PM

		G06F21/50 OR G06F2221/2133).cpc. AND (human person automat$7 bot) WITH geographic near3 location					
L572	164	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L573	48	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood AND human WITH model	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L574	19	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood SAME human WITH model	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L575	7	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood SAME human near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L576	33	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood AND human near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L577	100	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND captcha AND human near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L578	236	captcha AND human near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L579	1	"20060280339".pn.	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L580	22	("5933498" "6460141" "7506170" "8694244" "8700259" "8706405" "8713657" "8738287" "8775235" "8775236"	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM

		"8824659" "8825379" "8903052" "9047458" "9088652" "9152381" "9208461" "9240078" "9595008" "20080225870" "20090197815" "20130019290").pn.					
L581	0	human ADJ proof near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L582	4	human ADJ proof WITH model	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L583	41	human ADJ proof SAME model	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L584	46	human ADJ proof AND human near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L585	64	human ADJ proof AND human WITH model	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L586	819	human ADJ proof AND human WITH model	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/06/15 09:57 AM
L587	819	human ADJ proof AND human WITH model	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/06/15 09:57 AM
L588	506	human ADJ proof SAME model	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA,	OR	ON	ON	2023/06/15 09:57 AM

			EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)				
L589	289	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/06/15 09:57 AM
L590	22	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood WITH model	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/06/15 09:57 AM
L591	142	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human near3 likelihood	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO;	OR	ON	ON	2023/06/15 09:57 AM

			JPO; DERWENT; IBM_TDB)				
L592	41781	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. grant$4 near2 access WITH human	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/06/15 09:57 AM
L593	187	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND grant$4 near2 access WITH human	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/06/15 09:57 AM
L594	165	(G06F2221/2133).cpc. AND grant$4 near2 access WITH human	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/06/15 09:57 AM
L595	203	(G06F2221/2133).cpc. AND allow$4 near2 access WITH human	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS,	OR	ON	ON	2023/06/15 09:57 AM

			IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)				
L596	164	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L597	48	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood AND human WITH model	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L598	19	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood SAME human WITH model	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L599	7	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood SAME human near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L600	33	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood AND human near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L601	100	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND captcha AND human near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L602	236	captcha AND human near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L603	1	"20060280339".pn.	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L604	22	("5933498" "6460141" "7506170" "8694244"	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM

		"8700259" "8706405" "8713657" "8738287" "8775235" "8775236" "8824659" "8825379" "8903052" "9047458" "9088652" "9152381" "9208461" "9240078" "9595008" "20080225870" "20090197815" "20130019290").pn.					
L605	0	human ADJ proof near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L606	4	human ADJ proof WITH model	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L607	41	human ADJ proof SAME model	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L608	46	human ADJ proof AND human near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L609	64	human ADJ proof AND human WITH model	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L610	819	human ADJ proof AND human WITH model	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/06/15 09:57 AM
L611	819	human ADJ proof AND human WITH model	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/06/15 09:57 AM
L612	506	human ADJ proof SAME model	(US-PGPUB; USPAT; USOCR; FIT (AU, AP,	OR	ON	ON	2023/06/15 09:57 AM

			AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)				
L613	289	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/06/15 09:57 AM
L614	22	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood WITH model	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/06/15 09:57 AM
L615	142	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human near3 likelihood	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE,	OR	ON	ON	2023/06/15 09:57 AM

			SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)				
L616	41781	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. grant$4 near2 access WITH human	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/06/15 09:57 AM
L617	187	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND grant$4 near2 access WITH human	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/06/15 09:57 AM
L618	165	(G06F2221/2133).cpc. AND grant$4 near2 access WITH human	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/06/15 09:57 AM
L619	203	(G06F2221/2133).cpc. AND allow$4 near2 access WITH human	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU,	OR	ON	ON	2023/06/15 09:57 AM

			CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)				
L620	1	"10423885".pn.	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L621	1	"8713657".pn.	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L622	1	"20130019290".pn.	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L623	18	("6405922" "7089241" "7895653" "8280993" "8838570" "20050198158" "20050278253" "20070106737" "20070165911" "20070192419" "20070239604" "20070255818" "20070255821" "20080086524" "20080114624" "20080147456" "20080319774" "20090024971").pn.	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L624	13	("6405922" "7089241" "7895653" "8280993" "8838570" "20050198158" "20050278253" "20070106737" "20070165911" "20070192419" "20070239604" "20070255818" "20070255821" "20080086524" "20080114624" "20080147456" "20080319774" "20090024971").pn. AND (likel$7 probab$7)	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L625	8	("6405922" "7089241" "7895653" "8280993" "8838570" "20050198158" "20050278253"	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM

		"20070106737" "20070165911" "20070192419" "20070239604" "20070255818" "20070255821" "20080086524" "20080114624" "20080147456" "20080319774" "20090024971").pn. AND (likel$7 probab$7) WITH (human person automat$7)					
L626	21499	activ$4 WITH passiv$4 AND (likel$7 probab$7) WITH (human person automat$7)	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L627	119	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND activ$4 WITH passiv$4 AND (likel$7 probab$7) WITH (human person automat$7 bot)	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L628	22	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND activ$4 WITH passiv$4 AND (likel$7 probab$7) WITH (human person automat$7 bot) AND captcha	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L629	6	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND activ$4 WITH passiv$4 AND (likel$7 probab$7) WITH (human person automat$7 bot) WITH compar$4 WITH (prior previous$4 histor$7)	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L630	14	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND (likel$7 probab$7) WITH (human person automat$7 bot) WITH compar$4 WITH (prior	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM

		previous$4 histor$7)					
L631	300	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND (human person automat$7 bot) WITH compar$4 WITH (prior previous$4 histor$7)	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L632	89	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND (human person automat$7 bot) WITH compar$4 near4 (prior previous$4 histor$7)	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L633	2	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND normal WITH (human person automat$7 bot) WITH compar$4 near4 (prior previous$4 histor$7)	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L634	10	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND normal WITH (human person automat$7 bot) WITH captcha	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L635	11	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND captcha WITH (human person automat$7 bot) WITH compar$4 near4 (prior previous$4 histor$7)	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L636	126	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND captcha WITH (human person automat$7 bot) WITH (prior previous$4 histor$7)	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L637	437	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc.	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM

		AND captcha AND (human person automat$7 bot) WITH (prior previous$4 histor$7)					
L638	7239	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc.	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L639	164	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L640	48	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood AND human WITH model	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L641	19	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood SAME human WITH model	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L642	7	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood SAME human near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L643	33	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood AND human near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L644	100	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND captcha AND human near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L645	236	captcha AND human near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L646	1	"20060280339".pn.	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L647	22	("5933498" "6460141" "7506170" "8694244"	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM

		"8700259" "8706405" "8713657" "8738287" "8775235" "8775236" "8824659" "8825379" "8903052" "9047458" "9088652" "9152381" "9208461" "9240078" "9595008" "20080225870" "20090197815" "20130019290").pn.					
L648	0	human ADJ proof near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L649	4	human ADJ proof WITH model	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L650	41	human ADJ proof SAME model	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L651	46	human ADJ proof AND human near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L652	64	human ADJ proof AND human WITH model	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L653	819	human ADJ proof AND human WITH model	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/06/15 09:57 AM
L654	819	human ADJ proof AND human WITH model	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/06/15 09:57 AM
L655	506	human ADJ proof SAME model	(US-PGPUB; USPAT; USOCR; FIT (AU, AP,	OR	ON	ON	2023/06/15 09:57 AM

			AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)				
L656	289	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/06/15 09:57 AM
L657	22	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood WITH model	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/06/15 09:57 AM
L658	142	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human near3 likelihood	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE,	OR	ON	ON	2023/06/15 09:57 AM

			SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)				
L659	41781	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. grant$4 near2 access WITH human	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/06/15 09:57 AM
L660	187	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND grant$4 near2 access WITH human	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/06/15 09:57 AM
L661	165	(G06F2221/2133).cpc. AND grant$4 near2 access WITH human	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/06/15 09:57 AM
L662	203	(G06F2221/2133).cpc. AND allow$4 near2 access WITH human	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU,	OR	ON	ON	2023/06/15 09:57 AM

			CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)				
L663	164	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L664	48	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood AND human WITH model	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L665	19	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood SAME human WITH model	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L666	7	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood SAME human near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L667	33	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood AND human near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L668	100	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND captcha AND human near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L669	236	captcha AND human near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L670	1	"20060280339".pn.	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15

							09:57 AM
L671	22	("5933498" "6460141" "7506170" "8694244" "8700259" "8706405" "8713657" "8738287" "8775235" "8775236" "8824659" "8825379" "8903052" "9047458" "9088652" "9152381" "9208461" "9240078" "9595008" "20080225870" "20090197815" "20130019290").pn.	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L672	0	human ADJ proof near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L673	4	human ADJ proof WITH model	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L674	41	human ADJ proof SAME model	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L675	46	human ADJ proof AND human near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L676	64	human ADJ proof AND human WITH model	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L677	819	human ADJ proof AND human WITH model	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/06/15 09:57 AM
L678	819	human ADJ proof AND human WITH model	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT;	OR	ON	ON	2023/06/15 09:57 AM

			IBM_TDB)				
L679	506	human ADJ proof SAME model	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/06/15 09:57 AM
L680	289	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/06/15 09:57 AM
L681	22	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood WITH model	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/06/15 09:57 AM
L682	142	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human near3 likelihood	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV,	OR	ON	ON	2023/06/15 09:57 AM

			MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)				
L683	41781	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. grant$4 near2 access WITH human	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/06/15 09:57 AM
L684	187	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND grant$4 near2 access WITH human	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/06/15 09:57 AM
L685	165	(G06F2221/2133).cpc. AND grant$4 near2 access WITH human	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/06/15 09:57 AM
L686	203	(G06F2221/2133).cpc.	(US-PGPUB; USPAT;	OR	ON	ON	2023/06/15

		AND allow$4 near2 access WITH human	USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)				09:57 AM
L687	1	"10423885".pn.	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L688	1	"8713657".pn.	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L689	1	"20130019290".pn.	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L690	18	("6405922" "7089241" "7895653" "8280993" "8838570" "20050198158" "20050278253" "20070106737" "20070165911" "20070192419" "20070239604" "20070255818" "20070255821" "20080086524" "20080114624" "20080147456" "20080319774" "20090024971").pn.	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L691	13	("6405922" "7089241" "7895653" "8280993" "8838570" "20050198158" "20050278253" "20070106737" "20070165911" "20070192419" "20070239604" "20070255818" "20070255821" "20080086524" "20080114624" "20080147456" "20080319774" "20090024971").pn. AND (likel$7 probab$7)	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L692	8	("6405922" "7089241" "7895653" "8280993"	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM

		"8838570" "20050198158" "20050278253" "20070106737" "20070165911" "20070192419" "20070239604" "20070255818" "20070255821" "20080086524" "20080114624" "20080147456" "20080319774" "20090024971").pn. AND (likel$7 probab$7) WITH (human person automat$7)					
L693	21499	activ$4 WITH passiv$4 AND (likel$7 probab$7) WITH (human person automat$7)	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L694	119	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND activ$4 WITH passiv$4 AND (likel$7 probab$7) WITH (human person automat$7 bot)	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L695	22	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND activ$4 WITH passiv$4 AND (likel$7 probab$7) WITH (human person automat$7 bot) AND captcha	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L696	6	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND activ$4 WITH passiv$4 AND (likel$7 probab$7) WITH (human person automat$7 bot) WITH compar$4 WITH (prior previous$4 histor$7)	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L697	14	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND (likel$7 probab$7)	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM

		WITH (human person automat$7 bot) WITH compar$4 WITH (prior previous$4 histor$7)					
L698	300	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND (human person automat$7 bot) WITH compar$4 WITH (prior previous$4 histor$7)	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L699	89	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND (human person automat$7 bot) WITH compar$4 near4 (prior previous$4 histor$7)	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L700	2	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND normal WITH (human person automat$7 bot) WITH compar$4 near4 (prior previous$4 histor$7)	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L701	10	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND normal WITH (human person automat$7 bot) WITH captcha	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L702	11	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND captcha WITH (human person automat$7 bot) WITH compar$4 near4 (prior previous$4 histor$7)	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L703	126	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND captcha WITH (human person automat$7 bot) WITH (prior previous$4 histor$7)	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM

L704	437	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND captcha AND (human person automat$7 bot) WITH (prior previous$4 histor$7)	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L705	7239	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc.	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L706	164	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L707	48	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood AND human WITH model	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L708	19	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood SAME human WITH model	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L709	7	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood SAME human near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L710	33	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood AND human near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L711	100	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND captcha AND human near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L712	236	captcha AND human near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM

L713	1	"20060280339".pn.	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L714	22	("5933498" "6460141" "7506170" "8694244" "8700259" "8706405" "8713657" "8738287" "8775235" "8775236" "8824659" "8825379" "8903052" "9047458" "9088652" "9152381" "9208461" "9240078" "9595008" "20080225870" "20090197815" "20130019290").pn.	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L715	0	human ADJ proof near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L716	4	human ADJ proof WITH model	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L717	41	human ADJ proof SAME model	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L718	46	human ADJ proof AND human near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L719	64	human ADJ proof AND human WITH model	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L720	819	human ADJ proof AND human WITH model	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/06/15 09:57 AM
L721	819	human ADJ proof AND human WITH model	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO;	OR	ON	ON	2023/06/15 09:57 AM

			JPO; DERWENT; IBM_TDB)				
L722	506	human ADJ proof SAME model	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/06/15 09:57 AM
L723	289	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/06/15 09:57 AM
L724	22	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood WITH model	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/06/15 09:57 AM
L725	142	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human near3 likelihood	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS,	OR	ON	ON	2023/06/15 09:57 AM

			IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)				
L726	41781	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. grant$4 near2 access WITH human	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/06/15 09:57 AM
L727	187	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND grant$4 near2 access WITH human	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/06/15 09:57 AM
L728	165	(G06F2221/2133).cpc. AND grant$4 near2 access WITH human	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/06/15 09:57 AM

L729	203	(G06F2221/2133).cpc. AND allow$4 near2 access WITH human	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/06/15 09:57 AM
L730	164	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L731	48	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood AND human WITH model	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L732	19	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood SAME human WITH model	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L733	7	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood SAME human near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L734	33	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood AND human near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L735	100	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND captcha AND human near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM

L736	236	captcha AND human near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L737	1	"20060280339".pn.	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L738	22	("5933498" "6460141" "7506170" "8694244" "8700259" "8706405" "8713657" "8738287" "8775235" "8775236" "8824659" "8825379" "8903052" "9047458" "9088652" "9152381" "9208461" "9240078" "9595008" "20080225870" "20090197815" "20130019290").pn.	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L739	0	human ADJ proof near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L740	4	human ADJ proof WITH model	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L741	41	human ADJ proof SAME model	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L742	46	human ADJ proof AND human near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L743	64	human ADJ proof AND human WITH model	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L744	819	human ADJ proof AND human WITH model	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/06/15 09:57 AM
L745	819	human ADJ proof AND human WITH model	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK,	OR	ON	ON	2023/06/15 09:57 AM

			TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)				
L746	506	human ADJ proof SAME model	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/06/15 09:57 AM
L747	289	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/06/15 09:57 AM
L748	22	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood WITH model	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/06/15 09:57 AM
L749	142	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human near3	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA,	OR	ON	ON	2023/06/15 09:57 AM

		likelihood	EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)				
L750	41781	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. grant$4 near2 access WITH human	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/06/15 09:57 AM
L751	187	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND grant$4 near2 access WITH human	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/06/15 09:57 AM
L752	165	(G06F2221/2133).cpc. AND grant$4 near2 access WITH human	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO;	OR	ON	ON	2023/06/15 09:57 AM

			JPO; DERWENT; IBM_TDB)				
L753	203	(G06F2221/2133).cpc. AND allow$4 near2 access WITH human	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/06/15 09:57 AM
L754	1	"10423885".pn.	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L755	1	"8713657".pn.	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L756	1	"20130019290".pn.	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L757	18	("6405922" "7089241" "7895653" "8280993" "8838570" "20050198158" "20050278253" "20070106737" "20070165911" "20070192419" "20070239604" "20070255818" "20070255821" "20080086524" "20080114624" "20080147456" "20080319774" "20090024971").pn.	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L758	13	("6405922" "7089241" "7895653" "8280993" "8838570" "20050198158" "20050278253" "20070106737" "20070165911" "20070192419" "20070239604" "20070255818" "20070255821" "20080086524" "20080114624" "20080147456" "20080319774" "20090024971").pn.	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM

		AND (likel$7 probab$7)					
L759	8	("6405922" "7089241" "7895653" "8280993" "8838570" "20050198158" "20050278253" "20070106737" "20070165911" "20070192419" "20070239604" "20070255818" "20070255821" "20080086524" "20080114624" "20080147456" "20080319774" "20090024971").pn. AND (likel$7 probab$7) WITH (human person automat$7)	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L760	21499	activ$4 WITH passiv$4 AND (likel$7 probab$7) WITH (human person automat$7)	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L761	119	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND activ$4 WITH passiv$4 AND (likel$7 probab$7) WITH (human person automat$7 bot)	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L762	22	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND activ$4 WITH passiv$4 AND (likel$7 probab$7) WITH (human person automat$7 bot) AND captcha	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L763	6	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND activ$4 WITH passiv$4 AND (likel$7 probab$7) WITH (human person automat$7 bot) WITH compar$4 WITH (prior previous$4 histor$7)	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L764	14	(G06N7/005 OR G06F21/316 OR	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM

		G06F21/50 OR G06F2221/2133).cpc. AND (likel$7 probab$7) WITH (human person automat$7 bot) WITH compar$4 WITH (prior previous$4 histor$7)					
L765	300	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND (human person automat$7 bot) WITH compar$4 WITH (prior previous$4 histor$7)	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L766	89	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND (human person automat$7 bot) WITH compar$4 near4 (prior previous$4 histor$7)	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L767	2	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND normal WITH (human person automat$7 bot) WITH compar$4 near4 (prior previous$4 histor$7)	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L768	10	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND normal WITH (human person automat$7 bot) WITH captcha	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L769	11	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND captcha WITH (human person automat$7 bot) WITH compar$4 near4 (prior previous$4 histor$7)	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L770	126	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND captcha WITH (human person automat$7 bot) WITH	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM

		(prior previous$4 histor$7)					
L771	437	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND captcha AND (human person automat$7 bot) WITH (prior previous$4 histor$7)	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L772	7239	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc.	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L773	164	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L774	48	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood AND human WITH model	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L775	19	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood SAME human WITH model	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L776	7	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood SAME human near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L777	33	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood AND human near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L778	100	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND captcha AND human near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM

L779	236	captcha AND human near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L780	1	"20060280339".pn.	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L781	22	("5933498" "6460141" "7506170" "8694244" "8700259" "8706405" "8713657" "8738287" "8775235" "8775236" "8824659" "8825379" "8903052" "9047458" "9088652" "9152381" "9208461" "9240078" "9595008" "20080225870" "20090197815" "20130019290").pn.	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L782	0	human ADJ proof near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L783	4	human ADJ proof WITH model	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L784	41	human ADJ proof SAME model	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L785	46	human ADJ proof AND human near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L786	64	human ADJ proof AND human WITH model	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L787	819	human ADJ proof AND human WITH model	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/06/15 09:57 AM
L788	819	human ADJ proof AND human WITH model	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK,	OR	ON	ON	2023/06/15 09:57 AM

			TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)				
L789	506	human ADJ proof SAME model	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/06/15 09:57 AM
L790	289	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/06/15 09:57 AM
L791	22	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood WITH model	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/06/15 09:57 AM
L792	142	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human near3	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA,	OR	ON	ON	2023/06/15 09:57 AM

		likelihood	EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)				
L793	41781	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. grant$4 near2 access WITH human	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/06/15 09:57 AM
L794	187	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND grant$4 near2 access WITH human	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/06/15 09:57 AM
L795	165	(G06F2221/2133).cpc. AND grant$4 near2 access WITH human	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO;	OR	ON	ON	2023/06/15 09:57 AM

			JPO; DERWENT; IBM_TDB)				
L796	203	(G06F2221/2133).cpc. AND allow$4 near2 access WITH human	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/06/15 09:57 AM
L797	164	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L798	48	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood AND human WITH model	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L799	19	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood SAME human WITH model	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L800	7	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood SAME human near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L801	33	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood AND human near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L802	100	(G06N7/005 G06F21/316 G06F21/50	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM

		G06F2221/2133).cpc. AND captcha AND human near5 model					
L803	236	captcha AND human near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L804	1	"20060280339".pn.	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L805	22	("5933498" "6460141" "7506170" "8694244" "8700259" "8706405" "8713657" "8738287" "8775235" "8775236" "8824659" "8825379" "8903052" "9047458" "9088652" "9152381" "9208461" "9240078" "9595008" "20080225870" "20090197815" "20130019290").pn.	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L806	0	human ADJ proof near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L807	4	human ADJ proof WITH model	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L808	41	human ADJ proof SAME model	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L809	46	human ADJ proof AND human near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L810	64	human ADJ proof AND human WITH model	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L811	819	human ADJ proof AND human WITH model	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/06/15 09:57 AM
L812	819	human ADJ proof AND human WITH model	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO,	OR	ON	ON	2023/06/15 09:57 AM

			MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)				
L813	506	human ADJ proof SAME model	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/06/15 09:57 AM
L814	289	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/06/15 09:57 AM
L815	22	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood WITH model	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/06/15 09:57 AM
L816	142	(G06N7/005 G06F21/316	(US-PGPUB; USPAT; USOCR; FIT (AP, AT,	OR	ON	ON	2023/06/15 09:57 AM

		G06F21/50 G06F2221/2133).cpc. AND human near3 likelihood	AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)				
L817	41781	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. grant$4 near2 access WITH human	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/06/15 09:57 AM
L818	187	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND grant$4 near2 access WITH human	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/06/15 09:57 AM
L819	165	(G06F2221/2133).cpc. AND grant$4 near2 access WITH human	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE,	OR	ON	ON	2023/06/15 09:57 AM

			SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)				
L820	203	(G06F2221/2133).cpc. AND allow$4 near2 access WITH human	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/06/15 09:57 AM
L821	1	"10423885".pn.	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L822	1	"8713657".pn.	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L823	1	"20130019290".pn.	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L824	18	("6405922" "7089241" "7895653" "8280993" "8838570" "20050198158" "20050278253" "20070106737" "20070165911" "20070192419" "20070239604" "20070255818" "20070255821" "20080086524" "20080114624" "20080147456" "20080319774" "20090024971").pn.	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L825	13	("6405922" "7089241" "7895653" "8280993" "8838570" "20050198158" "20050278253" "20070106737" "20070165911" "20070192419" "20070239604" "20070255818" "20070255821" "20080086524" "20080114624"	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM

		"20080147456" "20080319774" "20090024971").pn. AND (likel$7 probab$7)					
L826	8	("6405922" "7089241" "7895653" "8280993" "8838570" "20050198158" "20050278253" "20070106737" "20070165911" "20070192419" "20070239604" "20070255818" "20070255821" "20080086524" "20080114624" "20080147456" "20080319774" "20090024971").pn. AND (likel$7 probab$7) WITH (human person automat$7)	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L827	21499	activ$4 WITH passiv$4 AND (likel$7 probab$7) WITH (human person automat$7)	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L828	119	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND activ$4 WITH passiv$4 AND (likel$7 probab$7) WITH (human person automat$7 bot)	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L829	22	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND activ$4 WITH passiv$4 AND (likel$7 probab$7) WITH (human person automat$7 bot) AND captcha	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L830	6	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND activ$4 WITH passiv$4 AND (likel$7 probab$7) WITH (human person automat$7 bot) WITH compar$4 WITH (prior	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM

		previous$4 histor$7)					
L831	14	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND (likel$7 probab$7) WITH (human person automat$7 bot) WITH compar$4 WITH (prior previous$4 histor$7)	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L832	300	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND (human person automat$7 bot) WITH compar$4 WITH (prior previous$4 histor$7)	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L833	89	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND (human person automat$7 bot) WITH compar$4 near4 (prior previous$4 histor$7)	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L834	2	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND normal WITH (human person automat$7 bot) WITH compar$4 near4 (prior previous$4 histor$7)	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L835	10	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND normal WITH (human person automat$7 bot) WITH captcha	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L836	11	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND captcha WITH (human person automat$7 bot) WITH compar$4 near4 (prior previous$4 histor$7)	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L837	126	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc.	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM

		AND captcha WITH (human person automat$7 bot) WITH (prior previous$4 histor$7)					
L838	437	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND captcha AND (human person automat$7 bot) WITH (prior previous$4 histor$7)	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L839	7239	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc.	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L840	16	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND captcha AND (passive).clm.	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/06/15 09:57 AM
L841	12	("5375244" "7680891" "7945952" "8056129" "8413250" "8938395" "20060015390" "20070038568" "20080127302" "20090044264" "20100070620" "20150112892").pn.	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L842	1	"20080114624".pn.	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L843	40	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND captcha AND (cookie).clm.	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE,	OR	ON	ON	2023/06/15 09:57 AM

			SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)				
L844	50	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND captcha AND (human person automat$7 bot) WITH (prior previous$4 histor$7) WITH cookie	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L845	80	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND captcha AND (human person automat$7 bot) WITH cookie	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L846	164	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND (human person automat$7 bot) WITH cookie	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L847	48	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND (human person automat$7 bot) WITH normal near3 behav$4	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L848	33	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND (human) WITH (histor$7 prior pverious) near3 behav$4	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L849	63	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND (human bot machine) WITH (histor$7 prior pverious) near3 behav$4	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L850	70	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND (human bot	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM

		machine) WITH (histor$7 prior previous) near3 behav$4					
L851	164	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L852	48	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood AND human WITH model	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L853	19	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood SAME human WITH model	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L854	7	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood SAME human near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L855	33	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood AND human near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L856	100	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND captcha AND human near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L857	236	captcha AND human near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L858	1	"20060280339".pn.	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L859	22	("5933498" "6460141" "7506170" "8694244" "8700259" "8706405" "8713657" "8738287" "8775235" "8775236" "8824659" "8825379" "8903052" "9047458" "9088652" "9152381"	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM

		"9208461" "9240078" "9595008" "20080225870" "20090197815" "20130019290").pn.					
L860	0	human ADJ proof near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L861	4	human ADJ proof WITH model	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L862	41	human ADJ proof SAME model	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L863	46	human ADJ proof AND human near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L864	64	human ADJ proof AND human WITH model	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L865	819	human ADJ proof AND human WITH model	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/06/15 09:57 AM
L866	819	human ADJ proof AND human WITH model	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/06/15 09:57 AM
L867	506	human ADJ proof SAME model	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV,	OR	ON	ON	2023/06/15 09:57 AM

			MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)				
L868	289	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/06/15 09:57 AM
L869	22	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood WITH model	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/06/15 09:57 AM
L870	142	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human near3 likelihood	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/06/15 09:57 AM
L871	41781	(G06N7/005	(US-PGPUB; USPAT;	OR	ON	ON	2023/06/15

		G06F21/316 G06F21/50 G06F2221/2133).cpc. grant$4 near2 access WITH human	USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)				09:57 AM
L872	187	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND grant$4 near2 access WITH human	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/06/15 09:57 AM
L873	165	(G06F2221/2133).cpc. AND grant$4 near2 access WITH human	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/06/15 09:57 AM
L874	203	(G06F2221/2133).cpc. AND allow$4 near2 access WITH human	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL,	OR	ON	ON	2023/06/15 09:57 AM

			PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)				
L875	164	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L876	48	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood AND human WITH model	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L877	19	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood SAME human WITH model	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L878	7	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood SAME human near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L879	33	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood AND human near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L880	100	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND captcha AND human near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L881	236	captcha AND human near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L882	1	"20060280339".pn.	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L883	22	("5933498" "6460141" "7506170" "8694244" "8700259" "8706405" "8713657" "8738287" "8775235" "8775236"	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM

		"8824659" "8825379" "8903052" "9047458" "9088652" "9152381" "9208461" "9240078" "9595008" "20080225870" "20090197815" "20130019290").pn.					
L884	0	human ADJ proof near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L885	4	human ADJ proof WITH model	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L886	41	human ADJ proof SAME model	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L887	46	human ADJ proof AND human near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L888	64	human ADJ proof AND human WITH model	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L889	819	human ADJ proof AND human WITH model	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/06/15 09:57 AM
L890	819	human ADJ proof AND human WITH model	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/06/15 09:57 AM
L891	506	human ADJ proof SAME model	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA,	OR	ON	ON	2023/06/15 09:57 AM

			EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)				
L892	289	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/06/15 09:57 AM
L893	22	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood WITH model	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/06/15 09:57 AM
L894	142	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human near3 likelihood	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO;	OR	ON	ON	2023/06/15 09:57 AM

			JPO; DERWENT; IBM_TDB)				
L895	41781	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. grant$4 near2 access WITH human	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/06/15 09:57 AM
L896	187	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND grant$4 near2 access WITH human	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/06/15 09:57 AM
L897	165	(G06F2221/2133).cpc. AND grant$4 near2 access WITH human	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/06/15 09:57 AM
L898	203	(G06F2221/2133).cpc. AND allow$4 near2 access WITH human	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS,	OR	ON	ON	2023/06/15 09:57 AM

			IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)				
L899	1	"10423885".pn.	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L900	1	"8713657".pn.	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L901	1	"20130019290".pn.	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L902	18	("6405922" "7089241" "7895653" "8280993" "8838570" "20050198158" "20050278253" "20070106737" "20070165911" "20070192419" "20070239604" "20070255818" "20070255821" "20080086524" "20080114624" "20080147456" "20080319774" "20090024971").pn.	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L903	13	("6405922" "7089241" "7895653" "8280993" "8838570" "20050198158" "20050278253" "20070106737" "20070165911" "20070192419" "20070239604" "20070255818" "20070255821" "20080086524" "20080114624" "20080147456" "20080319774" "20090024971").pn. AND (likel$7 probab$7)	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L904	8	("6405922" "7089241" "7895653" "8280993" "8838570" "20050198158" "20050278253" "20070106737" "20070165911" "20070192419"	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM

		"20070239604" "20070255818" "20070255821" "20080086524" "20080114624" "20080147456" "20080319774" "20090024971").pn. AND (likel$7 probab$7) WITH (human person automat$7)					
L905	21499	activ$4 WITH passiv$4 AND (likel$7 probab$7) WITH (human person automat$7)	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L906	119	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND activ$4 WITH passiv$4 AND (likel$7 probab$7) WITH (human person automat$7 bot)	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L907	22	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND activ$4 WITH passiv$4 AND (likel$7 probab$7) WITH (human person automat$7 bot) AND captcha	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L908	6	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND activ$4 WITH passiv$4 AND (likel$7 probab$7) WITH (human person automat$7 bot) WITH compar$4 WITH (prior previous$4 histor$7)	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L909	14	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND (likel$7 probab$7) WITH (human person automat$7 bot) WITH compar$4 WITH (prior previous$4 histor$7)	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L910	300	(G06N7/005 OR G06F21/316 OR	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM

		G06F21/50 OR G06F2221/2133).cpc. AND (human person automat$7 bot) WITH compar$4 WITH (prior previous$4 histor$7)					
L911	89	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND (human person automat$7 bot) WITH compar$4 near4 (prior previous$4 histor$7)	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L912	2	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND normal WITH (human person automat$7 bot) WITH compar$4 near4 (prior previous$4 histor$7)	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L913	10	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND normal WITH (human person automat$7 bot) WITH captcha	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L914	11	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND captcha WITH (human person automat$7 bot) WITH compar$4 near4 (prior previous$4 histor$7)	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L915	126	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND captcha WITH (human person automat$7 bot) WITH (prior previous$4 histor$7)	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L916	437	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND captcha AND (human person automat$7 bot) WITH	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM

		(prior previous$4 histor$7)					
L917	7239	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc.	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L918	164	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L919	48	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood AND human WITH model	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L920	19	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood SAME human WITH model	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L921	7	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood SAME human near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L922	33	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood AND human near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L923	100	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND captcha AND human near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L924	236	captcha AND human near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L925	1	"20060280339".pn.	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L926	22	("5933498" "6460141" "7506170" "8694244" "8700259" "8706405" "8713657" "8738287" "8775235" "8775236"	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM

		"8824659" "8825379" "8903052" "9047458" "9088652" "9152381" "9208461" "9240078" "9595008" "20080225870" "20090197815" "20130019290").pn.					
L927	0	human ADJ proof near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L928	4	human ADJ proof WITH model	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L929	41	human ADJ proof SAME model	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L930	46	human ADJ proof AND human near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L931	64	human ADJ proof AND human WITH model	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L932	819	human ADJ proof AND human WITH model	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/06/15 09:57 AM
L933	819	human ADJ proof AND human WITH model	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/06/15 09:57 AM
L934	506	human ADJ proof SAME model	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA,	OR	ON	ON	2023/06/15 09:57 AM

			EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)				
L935	289	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/06/15 09:57 AM
L936	22	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood WITH model	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/06/15 09:57 AM
L937	142	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human near3 likelihood	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO;	OR	ON	ON	2023/06/15 09:57 AM

			JPO; DERWENT; IBM_TDB)				
L938	41781	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. grant$4 near2 access WITH human	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/06/15 09:57 AM
L939	187	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND grant$4 near2 access WITH human	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/06/15 09:57 AM
L940	165	(G06F2221/2133).cpc. AND grant$4 near2 access WITH human	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/06/15 09:57 AM
L941	203	(G06F2221/2133).cpc. AND allow$4 near2 access WITH human	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS,	OR	ON	ON	2023/06/15 09:57 AM

			IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)				
L942	164	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L943	48	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood AND human WITH model	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L944	19	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood SAME human WITH model	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L945	7	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood SAME human near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L946	33	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood AND human near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L947	100	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND captcha AND human near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L948	236	captcha AND human near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L949	1	"20060280339".pn.	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L950	22	("5933498" "6460141" "7506170" "8694244"	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM

		"8700259" "8706405" "8713657" "8738287" "8775235" "8775236" "8824659" "8825379" "8903052" "9047458" "9088652" "9152381" "9208461" "9240078" "9595008" "20080225870" "20090197815" "20130019290").pn.					
L951	0	human ADJ proof near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L952	4	human ADJ proof WITH model	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L953	41	human ADJ proof SAME model	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L954	46	human ADJ proof AND human near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L955	64	human ADJ proof AND human WITH model	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L956	819	human ADJ proof AND human WITH model	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/06/15 09:57 AM
L957	819	human ADJ proof AND human WITH model	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/06/15 09:57 AM
L958	506	human ADJ proof SAME model	(US-PGPUB; USPAT; USOCR; FIT (AU, AP,	OR	ON	ON	2023/06/15 09:57 AM

			AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)				
L959	289	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/06/15 09:57 AM
L960	22	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood WITH model	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/06/15 09:57 AM
L961	142	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human near3 likelihood	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE,	OR	ON	ON	2023/06/15 09:57 AM

			SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)				
L962	41781	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. grant$4 near2 access WITH human	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/06/15 09:57 AM
L963	187	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND grant$4 near2 access WITH human	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/06/15 09:57 AM
L964	165	(G06F2221/2133).cpc. AND grant$4 near2 access WITH human	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/06/15 09:57 AM
L965	203	(G06F2221/2133).cpc. AND allow$4 near2 access WITH human	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU,	OR	ON	ON	2023/06/15 09:57 AM

			CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)				
L966	1	"10423885".pn.	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L967	1	"8713657".pn.	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L968	1	"20130019290".pn.	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L969	18	("6405922" "7089241" "7895653" "8280993" "8838570" "20050198158" "20050278253" "20070106737" "20070165911" "20070192419" "20070239604" "20070255818" "20070255821" "20080086524" "20080114624" "20080147456" "20080319774" "20090024971").pn.	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L970	13	("6405922" "7089241" "7895653" "8280993" "8838570" "20050198158" "20050278253" "20070106737" "20070165911" "20070192419" "20070239604" "20070255818" "20070255821" "20080086524" "20080114624" "20080147456" "20080319774" "20090024971").pn. AND (likel$7 probab$7)	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L971	8	("6405922" "7089241" "7895653" "8280993" "8838570" "20050198158" "20050278253"	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM

		"20070106737" "20070165911" "20070192419" "20070239604" "20070255818" "20070255821" "20080086524" "20080114624" "20080147456" "20080319774" "20090024971").pn. AND (likel$7 probab$7) WITH (human person automat$7)					
L972	21499	activ$4 WITH passiv$4 AND (likel$7 probab$7) WITH (human person automat$7)	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L973	119	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND activ$4 WITH passiv$4 AND (likel$7 probab$7) WITH (human person automat$7 bot)	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L974	22	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND activ$4 WITH passiv$4 AND (likel$7 probab$7) WITH (human person automat$7 bot) AND captcha	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L975	6	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND activ$4 WITH passiv$4 AND (likel$7 probab$7) WITH (human person automat$7 bot) WITH compar$4 WITH (prior previous$4 histor$7)	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L976	14	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND (likel$7 probab$7) WITH (human person automat$7 bot) WITH compar$4 WITH (prior	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM

		previous$4 histor$7)					
L977	300	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND (human person automat$7 bot) WITH compar$4 WITH (prior previous$4 histor$7)	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L978	89	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND (human person automat$7 bot) WITH compar$4 near4 (prior previous$4 histor$7)	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L979	2	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND normal WITH (human person automat$7 bot) WITH compar$4 near4 (prior previous$4 histor$7)	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L980	10	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND normal WITH (human person automat$7 bot) WITH captcha	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L981	11	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND captcha WITH (human person automat$7 bot) WITH compar$4 near4 (prior previous$4 histor$7)	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L982	126	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND captcha WITH (human person automat$7 bot) WITH (prior previous$4 histor$7)	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L983	437	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc.	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM

		AND captcha AND (human person automat$7 bot) WITH (prior previous$4 histor$7)					
L984	7239	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc.	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L985	164	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L986	48	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood AND human WITH model	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L987	19	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood SAME human WITH model	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L988	7	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood SAME human near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L989	33	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood AND human near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L990	100	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND captcha AND human near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L991	236	captcha AND human near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L992	1	"20060280339".pn.	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L993	22	("5933498" "6460141" "7506170" "8694244"	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM

		"8700259" "8706405" "8713657" "8738287" "8775235" "8775236" "8824659" "8825379" "8903052" "9047458" "9088652" "9152381" "9208461" "9240078" "9595008" "20080225870" "20090197815" "20130019290").pn.					
L994	0	human ADJ proof near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L995	4	human ADJ proof WITH model	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L996	41	human ADJ proof SAME model	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L997	46	human ADJ proof AND human near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L998	64	human ADJ proof AND human WITH model	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L999	819	human ADJ proof AND human WITH model	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/06/15 09:57 AM
L1000	819	human ADJ proof AND human WITH model	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/06/15 09:57 AM
L1001	506	human ADJ proof SAME model	(US-PGPUB; USPAT; USOCR; FIT (AU, AP,	OR	ON	ON	2023/06/15 09:57 AM

			AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)				
L1002	289	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/06/15 09:57 AM
L1003	22	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood WITH model	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/06/15 09:57 AM
L1004	142	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human near3 likelihood	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE,	OR	ON	ON	2023/06/15 09:57 AM

			SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)				
L1005	41781	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. grant$4 near2 access WITH human	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/06/15 09:57 AM
L1006	187	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND grant$4 near2 access WITH human	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/06/15 09:57 AM
L1007	165	(G06F2221/2133).cpc. AND grant$4 near2 access WITH human	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/06/15 09:57 AM
L1008	203	(G06F2221/2133).cpc. AND allow$4 near2 access WITH human	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU,	OR	ON	ON	2023/06/15 09:57 AM

			CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)				
L1009	164	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L1010	48	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood AND human WITH model	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L1011	19	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood SAME human WITH model	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L1012	7	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood SAME human near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L1013	33	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood AND human near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L1014	100	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND captcha AND human near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L1015	236	captcha AND human near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L1016	1	"20060280339".pn.	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15

							09:57 AM
L1017	22	("5933498" "6460141" "7506170" "8694244" "8700259" "8706405" "8713657" "8738287" "8775235" "8775236" "8824659" "8825379" "8903052" "9047458" "9088652" "9152381" "9208461" "9240078" "9595008" "20080225870" "20090197815" "20130019290").pn.	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L1018	0	human ADJ proof near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L1019	4	human ADJ proof WITH model	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L1020	41	human ADJ proof SAME model	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L1021	46	human ADJ proof AND human near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L1022	64	human ADJ proof AND human WITH model	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L1023	819	human ADJ proof AND human WITH model	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/06/15 09:57 AM
L1024	819	human ADJ proof AND human WITH model	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT;	OR	ON	ON	2023/06/15 09:57 AM

			IBM_TDB)				
L1025	506	human ADJ proof SAME model	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/06/15 09:57 AM
L1026	289	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/06/15 09:57 AM
L1027	22	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood WITH model	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/06/15 09:57 AM
L1028	142	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human near3 likelihood	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV,	OR	ON	ON	2023/06/15 09:57 AM

			MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)				
L1029	41781	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. grant$4 near2 access WITH human	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/06/15 09:57 AM
L1030	187	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND grant$4 near2 access WITH human	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/06/15 09:57 AM
L1031	165	(G06F2221/2133).cpc. AND grant$4 near2 access WITH human	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/06/15 09:57 AM
L1032	203	(G06F2221/2133).cpc.	(US-PGPUB; USPAT;	OR	ON	ON	2023/06/15

		AND allow$4 near2 access WITH human	USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)				09:57 AM
L1033	1	"10423885".pn.	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L1034	1	"8713657".pn.	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L1035	1	"20130019290".pn.	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L1036	18	("6405922" "7089241" "7895653" "8280993" "8838570" "20050198158" "20050278253" "20070106737" "20070165911" "20070192419" "20070239604" "20070255818" "20070255821" "20080086524" "20080114624" "20080147456" "20080319774" "20090024971").pn.	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L1037	13	("6405922" "7089241" "7895653" "8280993" "8838570" "20050198158" "20050278253" "20070106737" "20070165911" "20070192419" "20070239604" "20070255818" "20070255821" "20080086524" "20080114624" "20080147456" "20080319774" "20090024971").pn. AND (likel$7 probab$7)	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L1038	8	("6405922" "7089241" "7895653" "8280993"	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM

		"8838570" "20050198158" "20050278253" "20070106737" "20070165911" "20070192419" "20070239604" "20070255818" "20070255821" "20080086524" "20080114624" "20080147456" "20080319774" "20090024971").pn. AND (likel$7 probab$7) WITH (human person automat$7)					
L1039	21499	activ$4 WITH passiv$4 AND (likel$7 probab$7) WITH (human person automat$7)	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L1040	119	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND activ$4 WITH passiv$4 AND (likel$7 probab$7) WITH (human person automat$7 bot)	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L1041	22	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND activ$4 WITH passiv$4 AND (likel$7 probab$7) WITH (human person automat$7 bot) AND captcha	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L1042	6	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND activ$4 WITH passiv$4 AND (likel$7 probab$7) WITH (human person automat$7 bot) WITH compar$4 WITH (prior previous$4 histor$7)	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L1043	14	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND (likel$7 probab$7)	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM

		WITH (human person automat$7 bot) WITH compar$4 WITH (prior previous$4 histor$7)					
L1044	300	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND (human person automat$7 bot) WITH compar$4 WITH (prior previous$4 histor$7)	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L1045	89	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND (human person automat$7 bot) WITH compar$4 near4 (prior previous$4 histor$7)	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L1046	2	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND normal WITH (human person automat$7 bot) WITH compar$4 near4 (prior previous$4 histor$7)	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L1047	10	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND normal WITH (human person automat$7 bot) WITH captcha	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L1048	11	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND captcha WITH (human person automat$7 bot) WITH compar$4 near4 (prior previous$4 histor$7)	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L1049	126	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND captcha WITH (human person automat$7 bot) WITH (prior previous$4 histor$7)	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L1050	437	(G06N7/005 OR	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15

		G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND captcha AND (human person automat$7 bot) WITH (prior previous$4 histor$7)					09:57 AM
L1051	7239	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc.	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L1052	164	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L1053	48	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood AND human WITH model	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L1054	19	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood SAME human WITH model	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L1055	7	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood SAME human near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L1056	33	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood AND human near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L1057	100	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND captcha AND human near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L1058	236	captcha AND human near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L1059	1	"20060280339".pn.	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15

							09:57 AM
L1060	22	("5933498" "6460141" "7506170" "8694244" "8700259" "8706405" "8713657" "8738287" "8775235" "8775236" "8824659" "8825379" "8903052" "9047458" "9088652" "9152381" "9208461" "9240078" "9595008" "20080225870" "20090197815" "20130019290").pn.	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L1061	0	human ADJ proof near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L1062	4	human ADJ proof WITH model	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L1063	41	human ADJ proof SAME model	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L1064	46	human ADJ proof AND human near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L1065	64	human ADJ proof AND human WITH model	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L1066	819	human ADJ proof AND human WITH model	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/06/15 09:57 AM
L1067	819	human ADJ proof AND human WITH model	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT;	OR	ON	ON	2023/06/15 09:57 AM

			IBM_TDB)				
L1068	506	human ADJ proof SAME model	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/06/15 09:57 AM
L1069	289	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/06/15 09:57 AM
L1070	22	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood WITH model	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/06/15 09:57 AM
L1071	142	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human near3 likelihood	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV,	OR	ON	ON	2023/06/15 09:57 AM

			MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)				
L1072	41781	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. grant$4 near2 access WITH human	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/06/15 09:57 AM
L1073	187	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND grant$4 near2 access WITH human	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/06/15 09:57 AM
L1074	165	(G06F2221/2133).cpc. AND grant$4 near2 access WITH human	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/06/15 09:57 AM
L1075	203	(G06F2221/2133).cpc.	(US-PGPUB; USPAT;	OR	ON	ON	2023/06/15

		AND allow$4 near2 access WITH human	USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)				09:57 AM
L1076	164	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L1077	48	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood AND human WITH model	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L1078	19	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood SAME human WITH model	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L1079	7	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood SAME human near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L1080	33	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood AND human near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L1081	100	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND captcha AND human near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L1082	236	captcha AND human	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15

		near5 model					09:57 AM
L1083	1	"20060280339".pn.	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L1084	22	("5933498" "6460141" "7506170" "8694244" "8700259" "8706405" "8713657" "8738287" "8775235" "8775236" "8824659" "8825379" "8903052" "9047458" "9088652" "9152381" "9208461" "9240078" "9595008" "20080225870" "20090197815" "20130019290").pn.	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L1085	0	human ADJ proof near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L1086	4	human ADJ proof WITH model	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L1087	41	human ADJ proof SAME model	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L1088	46	human ADJ proof AND human near5 model	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L1089	64	human ADJ proof AND human WITH model	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L1090	819	human ADJ proof AND human WITH model	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/06/15 09:57 AM
L1091	819	human ADJ proof AND human WITH model	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA,	OR	ON	ON	2023/06/15 09:57 AM

			VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)				
L1092	506	human ADJ proof SAME model	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/06/15 09:57 AM
L1093	289	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/06/15 09:57 AM
L1094	22	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human WITH likelihood WITH model	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/06/15 09:57 AM
L1095	142	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND human near3 likelihood	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB,	OR	ON	ON	2023/06/15 09:57 AM

			HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)				
L1096	41781	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. grant$4 near2 access WITH human	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/06/15 09:57 AM
L1097	187	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND grant$4 near2 access WITH human	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/06/15 09:57 AM
L1098	165	(G06F2221/2133).cpc. AND grant$4 near2 access WITH human	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT;	OR	ON	ON	2023/06/15 09:57 AM

			IBM_TDB)				
L1099	203	(G06F2221/2133).cpc. AND allow$4 near2 access WITH human	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/06/15 09:57 AM
L1100	1	"10423885".pn.	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L1101	1	"8713657".pn.	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L1102	1	"20130019290".pn.	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L1103	18	("6405922" "7089241" "7895653" "8280993" "8838570" "20050198158" "20050278253" "20070106737" "20070165911" "20070192419" "20070239604" "20070255818" "20070255821" "20080086524" "20080114624" "20080147456" "20080319774" "20090024971").pn.	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L1104	13	("6405922" "7089241" "7895653" "8280993" "8838570" "20050198158" "20050278253" "20070106737" "20070165911" "20070192419" "20070239604" "20070255818" "20070255821" "20080086524" "20080114624" "20080147456" "20080319774" "20090024971").pn. AND (likel$7 probab$7)	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM

L1105	8	("6405922" "7089241" "7895653" "8280993" "8838570" "20050198158" "20050278253" "20070106737" "20070165911" "20070192419" "20070239604" "20070255818" "20070255821" "20080086524" "20080114624" "20080147456" "20080319774" "20090024971").pn. AND (likel$7 probab$7) WITH (human person automat$7)	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L1106	21499	activ$4 WITH passiv$4 AND (likel$7 probab$7) WITH (human person automat$7)	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L1107	119	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND activ$4 WITH passiv$4 AND (likel$7 probab$7) WITH (human person automat$7 bot)	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L1108	22	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND activ$4 WITH passiv$4 AND (likel$7 probab$7) WITH (human person automat$7 bot) AND captcha	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L1109	6	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND activ$4 WITH passiv$4 AND (likel$7 probab$7) WITH (human person automat$7 bot) WITH compar$4 WITH (prior previous$4 histor$7)	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L1110	14	(G06N7/005 OR G06F21/316 OR G06F21/50 OR	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM

		G06F2221/2133).cpc. AND (likel$7 probab$7) WITH (human person automat$7 bot) WITH compar$4 WITH (prior previous$4 histor$7)					
L1111	300	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND (human person automat$7 bot) WITH compar$4 WITH (prior previous$4 histor$7)	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L1112	89	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND (human person automat$7 bot) WITH compar$4 near4 (prior previous$4 histor$7)	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L1113	2	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND normal WITH (human person automat$7 bot) WITH compar$4 near4 (prior previous$4 histor$7)	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L1114	10	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND normal WITH (human person automat$7 bot) WITH captcha	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L1115	11	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND captcha WITH (human person automat$7 bot) WITH compar$4 near4 (prior previous$4 histor$7)	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L1116	126	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND captcha WITH (human person automat$7 bot) WITH (prior previous$4	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM

		histor$7)					
L1117	437	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND captcha AND (human person automat$7 bot) WITH (prior previous$4 histor$7)	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L1118	7239	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc.	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L1119	16	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND captcha AND (passive).clm.	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/06/15 09:57 AM
L1120	12	("5375244" "7680891" "7945952" "8056129" "8413250" "8938395" "20060015390" "20070038568" "20080127302" "20090044264" "20100070620" "20150112892").pn.	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L1121	1	"20080114624".pn.	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L1122	40	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND captcha AND (cookie).clm.	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT;	OR	ON	ON	2023/06/15 09:57 AM

			IBM_TDB)				
L1123	50	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND captcha AND (human person automat$7 bot) WITH (prior previous$4 histor$7) WITH cookie	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L1124	80	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND captcha AND (human person automat$7 bot) WITH cookie	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L1125	164	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND (human person automat$7 bot) WITH cookie	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L1126	48	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND (human person automat$7 bot) WITH normal near3 behav$4	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L1127	33	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND (human) WITH (histor$7 prior pverious) near3 behav$4	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L1128	63	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND (human bot machine) WITH (histor$7 prior pverious) near3 behav$4	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L1129	70	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND (human bot machine) WITH (histor$7 prior previous) near3 behav$4	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM

L1130	1	"20050278253".pn.	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L1131	63	captcha WITH geographic near3 location	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/06/15 09:57 AM
L1132	0	captcha WITH geographic near3 location WITH prior	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/06/15 09:57 AM
L1133	76	captcha AND geographic near3 location WITH prior	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/06/15 09:57 AM
L1134	0	captcha SAME geographic near3 location WITH prior	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS,	OR	ON	ON	2023/06/15 09:57 AM

			IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)				
L1135	0	captcha AND geographic near3 location WITH prior WITH human	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/06/15 09:57 AM
L1136	10	captcha AND location WITH prior WITH human	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/06/15 09:57 AM
L1137	46	location WITH prior WITH human near2 (proof prov$4)	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/06/15 09:57 AM

L1138	40	captcha AND geographic near3 location WITH human	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/06/15 09:57 AM
L1139	6428	geographic near3 location WITH human	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/06/15 09:57 AM
L1140	120	geographic near3 location WITH human near2 (proof prov$4)	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2023/06/15 09:57 AM
L1141	35	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND captcha AND (human person automat$7 bot) WITH geographic near3 location	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM

L1142	104	(G06N7/005 OR G06F21/316 OR G06F21/50 OR G06F2221/2133).cpc. AND (human person automat$7 bot) WITH geographic near3 location	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 09:57 AM
L1143	50	("6195698" "7373524" "7516220" "7606915" "7657849" "7721107" "7785180" "7877707" "7917491" "7917508" "7980953" "8032483" "8214891" "8353764" "8510795" "8601538" "8682718" "8684839" "8793135" "20050008148" "20050015257" "20050066201" "20060136294" "20070016689" "20070018393" "20070192849" "20070201745" "20070240230" "20070250920" "20070259716" "20070300077" "20080040653" "20080049969" "20080066014" "20080091453" "20080162200" "20080162227" "20080281606" "20080288303" "20090055193" "20090094311" "20090113294" "20090150986" "20090241174" "20090249477" "20090307028" "20090320123" "20100037147" "20110029902" "20110113388").pn.	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 11:36 AM

PE2E SEARCH - Search History (Interference)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	British Equivalents	Time Stamp
N1	0	captcha WITH anal$4 near3 passive	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/22 09:02 AM
N2	13	captcha WITH passive	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/22

							09:02 AM
N3	0	(captcha WITH passive).clm.	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/22 09:02 AM
N4	2	(captcha SAME passive).clm.	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/22 09:02 AM
N5	12	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND captcha AND (passive).clm.	(US-PGPUB; USPAT)	OR	ON	ON	2023/02/22 09:13 AM
N6	0	captcha WITH anal$4 near3 passive	(US-PGPUB; USPAT)	OR	ON	ON	2023/05/09 08:06 PM
N7	13	captcha WITH passive	(US-PGPUB; USPAT)	OR	ON	ON	2023/05/09 08:06 PM
N8	0	(captcha WITH passive).clm.	(US-PGPUB; USPAT)	OR	ON	ON	2023/05/09 08:06 PM
N9	2	(captcha SAME passive).clm.	(US-PGPUB; USPAT)	OR	ON	ON	2023/05/09 08:06 PM
N10	12	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND captcha AND (passive).clm.	(US-PGPUB; USPAT)	OR	ON	ON	2023/05/09 08:06 PM
N11	0	captcha WITH anal$4 near3 passive	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 11:33 AM
N12	14	captcha WITH passive	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 11:33 AM
N13	0	(captcha WITH passive).clm.	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 11:33 AM
N14	2	(captcha SAME passive).clm.	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 11:33 AM
N15	12	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND captcha AND (passive).clm.	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 11:33 AM
N16	0	captcha WITH anal$4 near3 passive	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 11:33 AM
N17	14	captcha WITH passive	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 11:33 AM
N18	0	(captcha WITH passive).clm.	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 11:33 AM
N19	2	(captcha SAME passive).clm.	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 11:33 AM
N20	12	(G06N7/005 G06F21/316 G06F21/50 G06F2221/2133).cpc. AND captcha AND	(US-PGPUB; USPAT)	OR	ON	ON	2023/06/15 11:33 AM

		(passive).clm.					

UNITED STATES PATENT AND TRADEMARK OFFICE

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United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

NOTICE OF ALLOWANCE AND FEE(S) DUE

29150 7590 07/06/2023

LEE & HAYES, P.C.
601 W. RIVERSIDE AVENUE
SUITE 1400
SPOKANE, WA 99201

EXAMINER	
LIPMAN, JACOB	
ART UNIT	PAPER NUMBER
2434	

DATE MAILED: 07/06/2023

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
17/882,082	08/05/2022	Timothy P. Heikell	N106-0002USC4	4844

TITLE OF INVENTION: Systems, Methods and Apparatus for Evaluating Status of Computing Device User

APPLN. TYPE	ENTITY STATUS	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	SMALL	$480	$0.00	$0.00	$480	10/06/2023

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

HOW TO REPLY TO THIS NOTICE:

I. Review the ENTITY STATUS shown above. If the ENTITY STATUS is shown as SMALL or MICRO, verify whether entitlement to that entity status still applies.

If the ENTITY STATUS is the same as shown above, pay the TOTAL FEE(S) DUE shown above.

If the ENTITY STATUS is changed from that shown above, on PART B - FEE(S) TRANSMITTAL, complete section number 5 titled "Change in Entity Status (from status indicated above)".

For purposes of this notice, small entity fees are 40% the amount of undiscounted fees, and micro entity fees are 20% the amount of undiscounted fees.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Maintenance fees are due in utility patents issuing on applications filed on or after Dec. 12, 1980. It is patentee's responsibility to ensure timely payment of maintenance fees when due. More information is available at www.uspto.gov/PatentMaintenanceFees.

PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), by mail or fax, or via EFS-Web.

By mail, send to: Mail Stop ISSUE FEE
Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450

By fax, send to: (571)-273-2885

INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where appropriate. All further correspondence will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee notifications. **Because electronic patent issuance may occur shortly after issue fee payment, any desired continuing application should preferably be filed prior to payment of this issue fee in order not to jeopardize copendency.**

CURRENT CORRESPONDENCE ADDRESS (Note: Use Block 1 for any change of address)

29150 7590 07/06/2023
LEE & HAYES, P.C.
601 W. RIVERSIDE AVENUE
SUITE 1400
SPOKANE, WA 99201

Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission.

Certificate of Mailing or Transmission

I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUE FEE address above, or being transmitted to the USPTO via EFS-Web or by facsimile to (571) 273-2885, on the date below.

(Typed or printed name)
(Signature)
(Date)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
17/882,082	08/05/2022	Timothy P. Heikell	N106-0002USC4	4844

TITLE OF INVENTION: Systems, Methods and Apparatus for Evaluating Status of Computing Device User

APPLN. TYPE	ENTITY STATUS	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	SMALL	$480	$0.00	$0.00	$480	10/06/2023

EXAMINER	ART UNIT	CLASS-SUBCLASS
LIPMAN, JACOB	2434	706-052000

1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).

❑ Change of correspondence address (or Change of Correspondence Address form PTO/AIA/122 or PTO/SB/122) attached.

❑ "Fee Address" indication (or "Fee Address" Indication form PTO/AIA/47 or PTO/SB/47; Rev 03-02 or more recent) attached. **Use of a Customer Number is required.**

2. For printing on the patent front page, list
(1) The names of up to 3 registered patent attorneys or agents OR, alternatively,
(2) The name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed.

1_____
2_____
3_____

3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)

PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. If an assignee is identified below, the document must have been previously recorded, or filed for recordation, as set forth in 37 CFR 3.11 and 37 CFR 3.81(a). Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE (B) RESIDENCE: (CITY and STATE OR COUNTRY)

Please check the appropriate assignee category or categories (will not be printed on the patent) : ❑ Individual ❑ Corporation or other private group entity ❑ Government

4a. Fees submitted: ❑Issue Fee ❑Publication Fee (if required)

4b. Method of Payment: *(Please first reapply any previously paid fee shown above)*

❑ Electronic Payment via Patent Center or EFS-Web ❑ Enclosed check ❑ Non-electronic payment by credit card (Attach form PTO-2038)

❑ The Director is hereby authorized to charge the required fee(s), any deficiency, or credit any overpayment to Deposit Account No. _____

5. **Change in Entity Status** (from status indicated above)

❑ Applicant certifying micro entity status. See 37 CFR 1.29
NOTE: Absent a valid certification of Micro Entity Status (see forms PTO/SB/15A and 15B), issue fee payment in the micro entity amount will not be accepted at the risk of application abandonment.

❑ Applicant asserting small entity status. See 37 CFR 1.27
NOTE: If the application was previously under micro entity status, checking this box will be taken to be a notification of loss of entitlement to micro entity status.

❑ Applicant changing to regular undiscounted fee status.
NOTE: Checking this box will be taken to be a notification of loss of entitlement to small or micro entity status, as applicable.

NOTE: This form must be signed in accordance with 37 CFR 1.31 and 1.33. See 37 CFR 1.4 for signature requirements and certifications.

Authorized Signature _____ Date _____

Typed or printed name _____ Registration No. _____

UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
17/882,082	08/05/2022	Timothy P. Heikell	N106-0002USC4	4844

29150 7590 07/06/2023

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601 W. RIVERSIDE AVENUE
SUITE 1400
SPOKANE, WA 99201

EXAMINER	
LIPMAN, JACOB	
ART UNIT	PAPER NUMBER
2434	

DATE MAILED: 07/06/2023

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)
(Applications filed on or after May 29, 2000)

The Office has discontinued providing a Patent Term Adjustment (PTA) calculation with the Notice of Allowance.

Section 1(h)(2) of the AIA Technical Corrections Act amended 35 U.S.C. 154(b)(3)(B)(i) to eliminate the requirement that the Office provide a patent term adjustment determination with the notice of allowance. See Revisions to Patent Term Adjustment, 78 Fed. Reg. 19416, 19417 (Apr. 1, 2013). Therefore, the Office is no longer providing an initial patent term adjustment determination with the notice of allowance. The Office will continue to provide a patent term adjustment determination with the Issue Notification Letter that is mailed to applicant approximately three weeks prior to the issue date of the patent, and will include the patent term adjustment on the patent. Any request for reconsideration of the patent term adjustment determination (or reinstatement of patent term adjustment) should follow the process outlined in 37 CFR 1.705.

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

OMB Clearance and PRA Burden Statement for PTOL-85 Part B

The Paperwork Reduction Act (PRA) of 1995 requires Federal agencies to obtain Office of Management and Budget approval before requesting most types of information from the public. When OMB approves an agency request to collect information from the public, OMB (i) provides a valid OMB Control Number and expiration date for the agency to display on the instrument that will be used to collect the information and (ii) requires the agency to inform the public about the OMB Control Number's legal significance in accordance with 5 CFR 1320.5(b).

The information collected by PTOL-85 Part B is required by 37 CFR 1.311. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 30 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, Virginia 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450. Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

Privacy Act Statement

The Privacy Act of 1974 (P.L. 93-579) requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b)(2); (2) furnishing of the information solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent application or patent. If you do not furnish the requested information, the U.S. Patent and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abandonment of the application or expiration of the patent.

The information provided by you in this form will be subject to the following routine uses:

1. The information on this form will be treated confidentially to the extent allowed under the Freedom of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C 552a). Records from this system of records may be disclosed to the Department of Justice to determine whether disclosure of these records is required by the Freedom of Information Act.
2. A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.
3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.
4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).
5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.
6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).
7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (i.e., GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.
8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspection or an issued patent.
9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

Notice of Allowability	Application No. 17/882,082	Applicant(s) Heikell, Timothy P.	
	Examiner JACOB LIPMAN	Art Unit 2434	AIA (FITF) Status No

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☑ This communication is responsive to the RCE filed 7 June 2023.
   ☐ A declaration(s)/affidavit(s) under **37 CFR 1.130(b)** was/were filed on _____.

2. ☐ An election was made by the applicant in response to a restriction requirement set forth during the interview on _____; the restriction requirement and election have been incorporated into this action.

3. ☑ The allowed claim(s) is/are 1-30 . As a result of the allowed claim(s), you may be eligible to benefit from the **Patent Prosecution Highway** program at a participating intellectual property office for the corresponding application. For more information, please see **http://www.uspto.gov/patents/init_events/pph/index.jsp** or send an inquiry to **PPHfeedback@uspto.gov.**

4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

   Certified copies:

   a) ☐ All b) ☐ Some* c) ☐ None of the:

   1. ☐ Certified copies of the priority documents have been received.
   2. ☐ Certified copies of the priority documents have been received in Application No. _____ .
   3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

   * Certified copies not received: _____ .

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
   ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____ .

   Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☑ Notice of References Cited (PTO-892)
2. ☑ Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date 6/7/23.
3. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material _____.
4. ☑ Interview Summary (PTO-413), Paper No./Mail Date. _____.
5. ☐ Examiner's Amendment/Comment
6. ☑ Examiner's Statement of Reasons for Allowance
7. ☐ Other _____.

/JACOB LIPMAN/
Primary Examiner, Art Unit 2434

DETAILED ACTION

Notice of Pre-AIA or AIA Status

1. The present application is being examined under the pre-AIA first to invent provisions.

Information Disclosure Statement

2. The information disclosure statement (IDS) submitted on 7 June 2023 has been considered by the examiner.

Allowable Subject Matter

3. Claims 1-30 are allowed.

4. The following is an examiner's statement of reasons for allowance:

5. The reasons for allowance are outlined in a notice for allowance dates 8 March 2023.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

References Cited

6. McGeehan et al., USPN 2010/0211997, discloses a system using captcha (0032) and uses cookies to identify a human user (0048), but is not seen as reading on the instant claims, nor is it seen as prior art.

Conclusion

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to JACOB LIPMAN whose telephone number is (571)272-3837. The examiner can normally be reached 5:30AM-6:00PM.

Examiner interviews are available via telephone, in-person, and video conferencing using a USPTO supplied web-based collaboration tool. To schedule an interview, applicant is encouraged to use the USPTO Automated Interview Request (AIR) at http://www.uspto.gov/interviewpractice.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kambiz Zand can be reached on 571-272-3811. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of published or unpublished applications may be obtained from Patent Center. Unpublished application information in Patent Center is available to registered users. To file and manage patent submissions in Patent Center, visit: https://patentcenter.uspto.gov. Visit https://www.uspto.gov/patents/apply/patent-center for more information about Patent Center and https://www.uspto.gov/patents/docx for information about filing in DOCX format. For additional questions, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/JACOB LIPMAN/
Primary Examiner, Art Unit 2434

UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
17/882,082	08/05/2022	Timothy P. Heikell	N106-0002USC4	4844

29150 7590 07/14/2023

LEE & HAYES, P.C.
601 W. RIVERSIDE AVENUE
SUITE 1400
SPOKANE, WA 99201

EXAMINER	
LIPMAN, JACOB	

ART UNIT	PAPER NUMBER
2434	

NOTIFICATION DATE	DELIVERY MODE
07/14/2023	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

lhpto@leehayes.com

Notice of Allowability	Application No. 17/882,082	Applicant(s) Heikell, Timothy P.	
	Examiner JACOB LIPMAN	Art Unit 2434	AIA (FITF) Status No

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

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1. ☑ This communication is responsive to the RCE filed 7 June 2023.
   ☐ A declaration(s)/affidavit(s) under **37 CFR 1.130(b)** was/were filed on _____.

2. ☐ An election was made by the applicant in response to a restriction requirement set forth during the interview on _____; the restriction requirement and election have been incorporated into this action.

3. ☑ The allowed claim(s) is/are 1-30 . As a result of the allowed claim(s), you may be eligible to benefit from the **Patent Prosecution Highway** program at a participating intellectual property office for the corresponding application. For more information, please see **http://www.uspto.gov/patents/init_events/pph/index.jsp** or send an inquiry to **PPHfeedback@uspto.gov.**

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   Certified copies:

   a) ☐ All b) ☐ Some* c) ☐ None of the:

   1. ☐ Certified copies of the priority documents have been received.
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2. ☑ Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date 6/21/23.
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4. ☐ Interview Summary (PTO-413), Paper No./Mail Date. _____.
5. ☐ Examiner's Amendment/Comment
6. ☐ Examiner's Statement of Reasons for Allowance
7. ☐ Other _____.

/JACOB LIPMAN/
Primary Examiner, Art Unit 2434

Doc code: IDS
Doc description: Information Disclosure Statement (IDS) Filed

PTO/SB/08a (01-22)
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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(**Not for submission under 37 CFR 1.99)**

Application Number	17882082
Filing Date	2022-08-05
First Named Inventor	Timothy P. Heikell
Art Unit	2434
Examiner Name	Jacob Lipman
Attorney Docket Number	N106-0002USC4

U.S.PATENTS Remove

Examiner Initial*	Cite No	Patent Number	Kind Code[1]	Issue Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear
	1					

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Examiner Initial*	Cite No	Publication Number	Kind Code[1]	Publication Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear
	1					

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FOREIGN PATENT DOCUMENTS Remove

Examiner Initial*	Cite No	Foreign Document Number[3]	Country Code[2] i	Kind Code[4]	Publication Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear	T[5]
	1							☐

If you wish to add additional Foreign Patent Document citation information please click the Add button Add

NON-PATENT LITERATURE DOCUMENTS Remove

Examiner Initials*	Cite No	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc), date, pages(s), volume-issue number(s), publisher, city and/or country where published.	T[5]

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /J.L/

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)		
	Application Number	17882082
	Filing Date	2022-08-05
	First Named Inventor	Timothy P. Heikell
	Art Unit	2434
	Examiner Name	Jacob Lipman
	Attorney Docket Number	N106-0002USC4

	1	"Most people have at least 15 username and password combinations to remember" retrieved from the internet on August 16, 2018 at <<https://web.archive.org/web/20050111041404/http://www.microsoft.com:80/hardware/mouseandkeyboard/features/docs/fingerprint.html >>, 12 pgs	☐

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EXAMINER SIGNATURE

Examiner Signature	/JACOB LIPMAN/	Date Considered	07/12/2023

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through a citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

[1] See Kind Codes of USPTO Patent Documents at www.USPTO.GOV or MPEP 901.04. [2] Enter office that issued the document, by the two-letter code (WIPO Standard ST.3). [3] For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. [4] Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. [5] Applicant is to place a check mark here if English language translation is attached.

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /J.L/

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)		
	Application Number	17882082
	Filing Date	2022-08-05
	First Named Inventor	Timothy P. Heikell
	Art Unit	2434
	Examiner Name	Jacob Lipman
	Attorney Docket Number	N106-0002USC4

CERTIFICATION STATEMENT

Please see 37 CFR 1.97 and 1.98 to make the appropriate selection(s):

☐ That each item of information contained in the information disclosure statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of the information disclosure statement. See 37 CFR 1.97(e)(1).

OR

☐ That no item of information contained in the information disclosure statement was cited in a communication from a foreign patent office in a counterpart foreign application, and, to the knowledge of the person signing the certification after making reasonable inquiry, no item of information contained in the information disclosure statement was known to any individual designated in 37 CFR 1.56(c) more than three months prior to the filing of the information disclosure statement. See 37 CFR 1.97(e)(2).

☐ See attached certification statement.

☐ The fee set forth in 37 CFR 1.17 (p) has been submitted herewith.

☒ A certification statement is not submitted herewith.

SIGNATURE

A signature of the applicant or representative is required in accordance with CFR 1.33, 10.18. Please see CFR 1.4(d) for the form of the signature.

Signature	/Bea Koempel-Thomas 58213/	Date (YYYY-MM-DD)	2023-06-21
Name/Print	Beatrice L. Koempel-Thomas	Registration Number	58213

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 1 hour to complete, including gathering, preparing and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /J.L/

Privacy Act Statement

The Privacy Act of 1974 (P.L. 93-579) requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b)(2); (2) furnishing of the information solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent application or patent. If you do not furnish the requested information, the U.S. Patent and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abandonment of the application or expiration of the patent.

The information provided by you in this form will be subject to the following routine uses:

1. The information on this form will be treated confidentially to the extent allowed under the Freedom of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C. 552a). Records from this system of records may be disclosed to the Department of Justice to determine whether the Freedom of Information Act requires disclosure of these record s.

2. A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.

3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.

4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).

5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.

6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).

7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (i.e., GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.

8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspections or an issued patent.

9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /J.L/

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE (USPTO)	
Application Serial Number	17/882,082
Confirmation Number	4844
Filing Date	August 5, 2022
Title of Application	Systems, Methods and Apparatus for Evaluating Status of Computing Device User
First Named Inventor	Timothy P. Heikell
Applicant	Nobots LLC
Group Art Unit	2434
Examiner	Jacob Lipman
Attorney Docket Number	N106-0002USC4

To: Commissioner for Patents
PO Box 1450
Alexandria, VA 22313-1450

From: Beatrice L. Koempel-Thomas (Tel. 509-324-9256; Fax 509-323-8979)
Lee & Hayes, P.C.
601 W. Riverside Ave, Suite 1400
Spokane, WA 99201

Customer Number 29150

Statement of the Substance of the Interview

Applicant's attorney believes that no fees are due with this filing; however, Applicant's attorney hereby authorizes the Commissioner to charge any deficiency of fees and credit any overpayments to Deposit Account Number 12-0769.

Remarks

Applicant would sincerely like to thank Examiner Lipman for conducting a telephonic interview with Applicant's attorney, Beatrice L. Koempel-Thomas on June 20, 2023. During the call she and the Examiner discussed apparent discrepancies and Applicant's representatives' difficulty confirming proper upload of documents cited via IDS in the instant application including inconsistencies between the USPTO's Private PAIR and the USPTO's Patent Center.

After determining that the documents had properly uploaded in application SN: 16/578,823 (N106-0002USC2), which is the parent application of application SN: 17/882,082 (N106-0002USC4) and application SN: 17/874,137 (N106-0002USC3), in an effort to avoid any issues regarding missing or incomplete document citations, Applicant's attorney determined to proceed with citation by reference to the citations in the priority application SN: 16/578,823 (N106-0002USC2). Applicant's attorney understood the Examiner to agree to review the citations for the instant application. Applicant thanks the Examiner for the courtesy extended via the interview to expedite issuance of this patent application.

Conclusion

If any issues remain that would prevent issuance of this application, **Applicant requests that the Examiner contact the undersigned representative before issuing a subsequent Office Action or Communication.**

Respectfully Submitted,

Lee & Hayes, P.C.
Representatives for Applicant

By: /Bea Koempel-Thomas 58213/ Dated: July 25, 2023

Beatrice L. Koempel-Thomas
(bea@leehayes.com; 509-944-4759)
Registration No. 58213

UNITED STATES
PATENT AND TRADEMARK OFFICE

P.O. Box 1450
Alexandria, VA 22313 - 1450
www.uspto.gov

ELECTRONIC ACKNOWLEDGEMENT RECEIPT

APPLICATION #	RECEIPT DATE / TIME	ATTORNEY DOCKET #
17/882,082	**07/26/2023 04:01:47 PM ET**	**N106-0002USC4**

Title of Invention

Systems, Methods and Apparatus for Evaluating Status of Computing Device User

Application Information

APPLICATION TYPE	Utility - Nonprovisional Application under 35 USC 111(a)	PATENT #	-
CONFIRMATION #	4844	FILED BY	Laura Bishop
PATENT CENTER #	62509890	FILING DATE	08/05/2022
CUSTOMER #	29150	FIRST NAMED INVENTOR	Timothy P. Heikell
CORRESPONDENCE ADDRESS	-	AUTHORIZED BY	Beatrice Koempel-Thomas

Documents

TOTAL DOCUMENTS: 1

DOCUMENT	PAGES	DESCRIPTION	SIZE (KB)
Statement of Substance of Interview.PDF	2	Applicant summary of interview with examiner	39 KB

Digest

DOCUMENT	MESSAGE DIGEST(SHA-512)
Statement of Substance of Interview.PDF	0D119D1A3D97A11C02013E6A4AD25BD59F06E818FC0E1AA03804511ECF03BF125B1F417F6F25FC7412119D2911527DF06CB4BD0964CB84FF658746C4B3450D5A

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New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application

National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE (USPTO)	
Application Serial Number	17/882,082
Confirmation Number	4844
Filing Date	August 05, 2022
Title of Application	Systems, Methods and Apparatus for Evaluating Status of Computing Device User
First Named Inventor	Timothy P. Heikell
Assignee	Nobots LLC
Group Art Unit	2434
Examiner	Jacob Lipman
Attorney Docket Number	N106-0002USC4

To: Commissioner for Patents
PO Box 1450
Alexandria, VA 22313-1450

From: Beatrice L. Koempel-Thomas (Tel. 509-944-4759; Fax 509-323-8979)
Lee & Hayes, P.C.
601 W. Riverside Ave, Suite 1400
Spokane, WA 99201

Customer Number 29150

COMMENTS ON STATEMENT OF REASONS FOR ALLOWANCE

Applicant acknowledges with appreciation the allowance by the Examiner of the subject application in the Notice of Allowance dated July 6, 2023, which includes an Examiner's Statement of Reasons for Allowance ("Statement"). To the extent that the Statement characterizes, instead of reciting verbatim, the language of any of the allowed claims, Applicant expressly traverses the Statement and submits that the claims are allowable for the features that they each recite.

In addition, Applicant reserves the right to present claims having different and/or broader scope in a continuation application.

Respectfully Submitted,

Lee & Hayes, P.C.
Representatives for Applicant

By: /Bea Koempel-Thomas 58213/ Dated: October 5, 2023

Beatrice L. Koempel-Thomas
(bea@leehayes.com; 509-944-4759)
Registration No. 58213

David A. Divine
(Daved@leehayes.com; 509-944-4733
Registration No. 51275

UNITED STATES
PATENT AND TRADEMARK OFFICE

P.O. Box 1450
Alexandria, VA 22313 - 1450
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ELECTRONIC PAYMENT RECEIPT

APPLICATION #	RECEIPT DATE / TIME	ATTORNEY DOCKET #
17/882,082	**10/05/2023 08:46:15 PM ET**	**N106-0002USC4**

Title of Invention

Systems, Methods and Apparatus for Evaluating Status of Computing Device User

Application Information

APPLICATION TYPE	Utility - Nonprovisional Application under 35 USC 111(a)	PATENT #	-
CONFIRMATION #	4844	FILED BY	Laura Bishop
PATENT CENTER #	62940529	AUTHORIZED BY	Beatrice Koempel-Thomas
CUSTOMER #	29150	FILING DATE	08/05/2022
CORRESPONDENCE ADDRESS	-	FIRST NAMED INVENTOR	Timothy P. Heikell

Payment Information

PAYMENT METHOD	PAYMENT TRANSACTION ID	PAYMENT AUTHORIZED BY
CARD / 2040	**E202305K47345949**	**Laura Bishop**

FEE CODE	DESCRIPTION	ITEM PRICE($)	QUANTITY	ITEM TOTAL($)
2501	UTILITY ISSUE FEE	480.00	1	480.00
			TOTAL AMOUNT:	**$480.00**

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New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application

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submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

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ELECTRONIC ACKNOWLEDGEMENT RECEIPT

APPLICATION #	RECEIPT DATE / TIME	ATTORNEY DOCKET #
17/882,082	**10/05/2023 08:46:15 PM ET**	**N106-0002USC4**

Title of Invention

Systems, Methods and Apparatus for Evaluating Status of Computing Device User

Application Information

APPLICATION TYPE	Utility - Nonprovisional Application under 35 USC 111(a)	PATENT #	-
CONFIRMATION #	4844	FILED BY	Laura Bishop
PATENT CENTER #	62940529	FILING DATE	08/05/2022
CUSTOMER #	29150	FIRST NAMED INVENTOR	Timothy P. Heikell
CORRESPONDENCE ADDRESS	-	AUTHORIZED BY	Beatrice Koempel-Thomas

Documents

TOTAL DOCUMENTS: 2

DOCUMENT	PAGES	DESCRIPTION	SIZE (KB)
Comments on Examiner's Reasons for Allowance.PDF	2	Post Allowance Communication - Incoming	29 KB
PDF Issue Fee Form.PDF	1	Issue Fee Payment (PTO-85B)	137 KB

Digest

DOCUMENT	MESSAGE DIGEST(SHA-512)
Comments on Examiner's Reasons for Allowance.PDF	1403D1ED0484554A898E2BFCFF2868E412838A77EBFF33EEC5AAE43F4AFC8566882557C130C4F24C75FD8592C3FE7329BAFE182935748A786B2450A5DD2FA4F4

PDF Issue Fee Form.PDF BE070E2976EC25B861498DD24B96BA1E421DE9D06AE9073F466F5771E62756F6BB402C4EFDD6DC224A0811AC1AF9D6A75867BEFD7443ED4626672E03C403BBA9

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PART B – FEE(S) TRANSMITTAL

Complete and send this form, together with the applicable fee(s), by mail or fax, or via EFS-Web.

By mail, send to: Mail Stop ISSUE FEE
Commissioner for Patents
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Alexandria, VA 22313-1450

By fax, send to: (571) 273-2885

INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee notifications.

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Customer Number 29150

Lee & Hayes P.C.
601 W Riverside Ave Suite 1400
Spokane, WA 99201

Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission.

Certificate of Mailing or Transmission

I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUE FEE address above, or being transmitted to the USPTO via EFS-Web or by facsimile to (571) 273-2885, on the date below.

Laura Bishop	(Typed or printed name)
/Laura Bishop/	(Signature)
October 5, 2023	(Date)

APPLICATION NO	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO	CONFIRMATION NO
17/882,082	8/5/2022	Timothy P. Heikell	N106 _ 0002USC4	4844

TITLE OF INVENTION: Systems, Methods and Apparatus for Evaluating Status of Computing Device User

APPLN. TYPE	ENTITY STATUS	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
Nonprovisional	SMALL	480	0		480	10/6/2023

EXAMINER	ART UNIT	CLASS-SUBCLASS
Jacob Lipman	2434	706-052000

1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363)

☐ Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.

☐ "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-09 or more recent) attached. **Use of a Customer Number is required.**

2. For printing on the patent front page, list

(1) The names of up to 3 registered patent attorneys or agents OR, alternatively,

(2) The name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed.

1. Lee & Hayes, P.C.
2. Bea Koempel-Thomas
3.

3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)

PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. If an assignee is identified below, the document must have been previously recorded, or filed for recordation, as set forth in 37 CFR 3.11 and 37 CFR 3.81(a). Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE	(B) RESIDENCE: (CITY and STATE or COUNTRY)	
Nobots LLC	Renton	WA

Please check the appropriate assignee category or categories (will not be printed on the patent): ☐ Individual ☐ Corporation or other private group entity ☐ Government

4a. Fees Submitted: ☑ Issue Fee ☐ Publication Fee (if required) ☐ Advance Order - # of Copies _____

4b. Method of Payment (*Please first reapply any previously paid fee shown above*):

☑ Electronic Payment via EFS-Web ☐ Enclosed check ☐ Non-electronic payment by credit card (Attach form PTO-2038)

☑ The Director is hereby authorized to charge the required fee(s), any deficiency, or credit any overpayment to Deposit Account No. 12-0769

5. Change of Entity Status (from status indicated above)

☐ Applicant certifying micro entity status. See 37 CFR 1.29. NOTE: Absent a valid Certification of Micro Entity Status (see forms PTO/SB/15A and 15B), issue fee payment in the micro entity amount will not be accepted at the risk of application abandonment.

☐ Applicant asserting small entity status. See 37 CFR 1.27. NOTE: If the application was previously under micro entity status, checking this box will be taken as a notification of loss of entitlement to micro entity status.

☐ Applicant changing to regular undiscounted fee status. NOTE: Checking this box will be taken as a notification of loss of entitlement to small or micro entity status, as applicable.

NOTE: This form must be signed in accordance with 37 CFR 1.31 and 1.33. See 37 CFR 1.4 for signature requirements and certifications.

Authorized Signature /Bea Koempel-Thomas 58213/ Date October 5, 2023

Typed or printed name Beatrice L. Koempel-Thomas Registration No. 58213

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)		
	Application Number	17882082
	Filing Date	2022-08-05
	First Named Inventor	Timothy P. Heikell
	Art Unit	2434
	Examiner Name	
	Attorney Docket Number	N106-0002USC4

	2	20070038568	A1	2007-02-15	Greene, et al.	
	3	20080127302	A1	05/2008 ~~2013-12-03~~	Qvarfordt, et al.	
Change(s) applied to document, /B.P./ 3/21/2023	4	20090044264	A1	12/2009 ~~2013-07-25~~	Ramanathan, et al.	
	5	20100070620	A1	03/2010 ~~2013-04-30~~	Awadallah, et al.	
	6	20150112892	A1	2015-04-23	Kaminsky, et al.	

If you wish to add additional U.S. Published Application citation information please click the Add button.

FOREIGN PATENT DOCUMENTS

Examiner Initial*	Cite No	Foreign Document Number[3]	Country Code[2]	Kind Code[4]	Publication Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear	T[5]
	1	JP2007213409	JP	A	2007-08-23	FUJITSU LTD		☐
	2	WO2007090605	WO	A1	2007-08-16	MEDIAKEY LTD		☐

If you wish to add additional Foreign Patent Document citation information please click the Add button

NON-PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc), date, pages(s), volume-issue number(s), publisher, city and/or country where published.	T[5]
	1	Ahn, et al., "CAPTCHA: Using Hard AI Problems for Security", Lecture Notes in Computer Science, Vol LNCS 2656, 2003, pp. 294-331	☐

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /J.L/

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)		
	Application Number	17882082
	Filing Date	2022-08-05
	First Named Inventor	Timothy P. Heikell
	Art Unit	2434
	Examiner Name	Jacob Lipman
	Attorney Docket Number	N106-0002USC4

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U.S.PATENT APPLICATION PUBLICATIONS Remove

Examiner Initial*	Cite No	Publication Number	Kind Code[1]	Publication Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear
	1	20050008148	A1	2005-01-13	Dov Jacobson	
	2	20050015257	A1	2005-01-20	Alexandre Bronstein	
	3	20050066201	A1	2005-03-24	Joshua Goodman, et al.	
	4	20060136294	A1	2006-06-22	John Linden, et al.	
	5	20070016689	A1	2007-01-18	Michael Birch	
	6	20070018393	A1	2007-01-25	Janice Ritter, et al.	
	7	20070192849	A1	2007-08-16	Philippe Golle, et al.	
	8	20070201745	A1	2007-08-30	James Wang, et al.	
Change(s) applied to document, /T.W./ 10/9/2023	9	20070240230	A1	2007-10-11	~~Brian O' et al.~~ O'Connell et al.	

EFS Web 2.1.18

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)		
	Application Number	17882082
	Filing Date	2022-08-05
	First Named Inventor	Timothy P. Heikell
	Art Unit	2434
	Examiner Name	Jacob Lipman
	Attorney Docket Number	N106-0002USC4

	10	20070250920	A1	2007-10-25	Jeffrey Dean Lindsay	
	11	20070259716	A1	2007-11-08	Harold Mattice, et al.	
	12	20070300077	A1	2007-12-27	Seshadri Mani, et al.	
	13	20080040653	A1	2008-02-14	Christopher Levine	
	14	20080049969	A1	2008-02-28	Jason David Koziol	
	15	20080066014	A1	2008-03-13	Deapesh Misra	
	16	20080091453	A1	2008-04-17	Timothy Meehan, et al.	
Change(s) applied to document /T.W./ 10/9/2023	17	20080162200	A1	2008-07-03	~~Patrick J. O&#39, et al.~~ O'Sullivan et al.	
	18	20080162227	A1	2008-07-03	Bjorn Markus Jakobsson, et al.	
	19	20080281606	A1	2008-11-13	Brendan J. Kitts, et al.	
	20	20080288303	A1	2008-11-20	Richard J. Gray, et al.	

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APPLICATION NO.	ISSUE DATE	PATENT NO.	ATTORNEY DOCKET NO.	CONFIRMATION NO.
17/882,082	11/07/2023	11810014	N106-0002USC4	4844

29150 7590 10/18/2023

LEE & HAYES, P.C.
601 W. RIVERSIDE AVENUE
SUITE 1400
SPOKANE, WA 99201

ISSUE NOTIFICATION

The projected patent number and issue date are specified above. The patent will issue electronically. The electronically issued patent is the official patent grant pursuant to 35 U.S.C. § 153. The patent may be accessed on or after the issue date through Patent Center at https://patentcenter.uspto.gov/. The patent will be available in both the public and the private sides of Patent Center. Further assistance in electronically accessing the patent, or about Patent Center, is available by calling the Patent Electronic Business Center at 1-888-217-9197.

The USPTO is implementing electronic patent issuance with a transition period, during which period the USPTO will mail a ceremonial paper copy of the electronic patent grant to the correspondence address of record. Additional copies of the patent (i.e., certified and presentation copies) may be ordered for a fee from the USPTO's Certified Copy Center at https://certifiedcopycenter.uspto.gov/index.html. The Certified Copy Center may be reached at (800)972-6382.

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)
(application filed on or after May 29, 2000)

The Patent Term Adjustment is 0 day(s). Any patent to issue from the above-identified application will include an indication of the adjustment on the front page.

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Center (https://patentcenter.uspto.gov).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Application Assistance Unit (AAU) of the Office of Patents Stakeholder Experience (OPSE), Stakeholder Support Division (SSD) at (571)-272-4200.

INVENTOR(s) (Please see PATENT CENTER site https://patentcenter.uspto.gov for additional inventors):

Timothy P. Heikell, Renton, WA;

APPLICANT(s) (Please see PATENT CENTER site https://patentcenter.uspto.gov for additional applicants):

Nobots LLC, Renton, WA;

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
17/882,082	08/05/2022	Timothy P. Heikell	N106-0002USC4	4844

29150 7590 11/07/2023

LEE & HAYES, P.C.
601 W. RIVERSIDE AVENUE
SUITE 1400
SPOKANE, WA 99201

EXAMINER	
LIPMAN, JACOB	

ART UNIT	PAPER NUMBER
2434	

NOTIFICATION DATE	DELIVERY MODE
11/07/2023	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

lhpto@leehayes.com

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United States Patent and Trademark Office
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Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	ISSUE DATE	PATENT NO.
17/882,082	07-Nov-2023	11810014

LEE & HAYES, P.C.
601 W. RIVERSIDE AVENUE
SPOKANE, WA 99201

EGRANT NOTIFICATION

Your electronic patent grant (eGrant) is now available, which can be accessed via Patent Center at https://patentcenter.uspto.gov

The electronic patent grant is the official patent grant under 35 U.S.C. 153. For more information, please visit https://www.uspto.gov/electronicgrants

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ELECTRONIC ACKNOWLEDGEMENT RECEIPT

APPLICATION #	RECEIPT DATE / TIME	ATTORNEY DOCKET #
17/882,082	**04/07/2025 06:29:10 PM Z ET**	**N106-0002USC4**

Title of Invention

Systems, Methods and Apparatus for Evaluating Status of Computing Device User

Application Information

APPLICATION TYPE	Utility - Nonprovisional Application under 35 USC 111(a)	PATENT #	11810014
CONFIRMATION #	4844	FILED BY	BEATRICE KOEMPEL THOMAS
PATENT CENTER #	69903245	FILING DATE	08/05/2022
CUSTOMER #	29150	FIRST NAMED INVENTOR	Timothy P. Heikell
CORRESPONDENCE ADDRESS	-	AUTHORIZED BY	-

Documents

TOTAL DOCUMENTS: 1

DOCUMENT	PAGES	DESCRIPTION	SIZE (KB)
NB1-0002USC4 aia0082_fill POA TBF.pdf	2	Power of Attorney	1494 KB

Digest

DOCUMENT	MESSAGE DIGEST(SHA-512)
NB1-0002USC4 aia0082_fill POA TBF.pdf	400BB023EBDE144A4F7F895592EC2B0171DD71E68B93A6A0422CAA89E4EACD494E3FF72215C843B0BFC8A0C543C8A9B7F5C56E28BAD960ACD5AECF7C81904C4B

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application

National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

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Doc Code: PA..
Document Description: Power of Attorney

PTO/AIA/82A (07-13)
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Application Number	17/882,082
Filing Date	2022-08-05
First Named Inventor	Timothy Heikell
Title	SYSTEMS, METHODS AND APPARATUS FOR EVALUATING STATUS OF COMPUTING DEVICE USER
Art Unit	2434
Examiner Name	Lipman
Attorney Docket Number	~~N106-0002USC4~~ NB1-0002USC4

SIGNATURE of Applicant or Patent Practitioner

Signature	/Bea Koempel-Thomas 58213/	Date (Optional)	
Name	Beatrice L. Koempel-Thomas	Registration Number	58213
Title (if Applicant is a juristic entity)	Patent Attorney		
Applicant Name (if Applicant is a juristic entity)	Nobots LLC		

NOTE: This form must be signed in accordance with 37 CFR 1.33. See 37 CFR 1.4(d) for signature requirements and certifications. If more than one applicant, use multiple forms.

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I hereby revoke all previous powers of attorney given in the application identified in either the attached transmittal letter or the boxes below.

Application Number	Filing Date

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I am the Applicant (if the Applicant is a juristic entity, list the Applicant name in the box):

Nobots LLC

☐ Inventor or Joint Inventor (title not required below)

☐ Legal Representative of a Deceased or Legally Incapacitated Inventor (title not required below)

☑ Assignee or Person to Whom the Inventor is Under an Obligation to Assign (provide signer's title if applicant is a juristic entity)

☐ Person Who Otherwise Shows Sufficient Proprietary Interest (e.g., a petition under 37 CFR 1.46(b)(2) was granted in the application or is concurrently being filed with this document) (provide signer's title if applicant is a juristic entity)

SIGNATURE of Applicant for Patent

The undersigned (whose title is supplied below) is authorized to act on behalf of the applicant (e.g., where the applicant is a juristic entity).

Signature	/Timothy P. Heikell/	Date (Optional)	
Name	Timothy P. Heikell		
Title	Registered Agent		

NOTE: Signature - This form must be signed by the applicant in accordance with 37 CFR 1.33. See 37 CFR 1.4 for signature requirements and certifications. If more than one applicant, use multiple forms.

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Application

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Application Number	17/882,082
Filing Date	2022-08-05
First Named Inventor	Timothy Heikell
Art Unit	2434
Examiner Name	Lipman
Attorney Docket Number	~~N106-0002USC4~~ NB1-0002USC4

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☐ Assignee of record of the entire interest.
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☑ Attorney or agent of record. Registration Number 58213.

☐ Registered practitioner named in the application transmittal letter in an application without an executed oath or declaration. See 37 CFR 1.33(a)(1). Registration Number_____

Signature	/Bea Koempel-Thomas 58213/
Typed or Printed Name	Bea Koempel-Thomas
Date April 7, 2025	Telephone 509-263-9233

NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below*.

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APPLICATION #	RECEIPT DATE / TIME	ATTORNEY DOCKET #
17/882,082	**04/07/2025 07:15:11 PM Z ET**	**N106-0002USC4**

Title of Invention

Systems, Methods and Apparatus for Evaluating Status of Computing Device User

Application Information

APPLICATION TYPE	Utility - Nonprovisional Application under 35 USC 111(a)	PATENT #	11810014
CONFIRMATION #	4844	FILED BY	BEATRICE KOEMPEL THOMAS
PATENT CENTER #	69903866	FILING DATE	08/05/2022
CUSTOMER #	29150	FIRST NAMED INVENTOR	Timothy P. Heikell
CORRESPONDENCE ADDRESS	-	AUTHORIZED BY	-

Documents

TOTAL DOCUMENTS: 1

DOCUMENT	PAGES	DESCRIPTION	SIZE (KB)
NB1-0002USC4 sb0122_fill TBF.pdf	2	Change of Address	187 KB

Digest

DOCUMENT	MESSAGE DIGEST(SHA-512)
NB1-0002USC4 sb0122_fill TBF.pdf	64BD5F7AE647985D45CA354C2A7A40D2DC4D36216D3554BC 1F3C2B6113939668181F10C121E3E368E5B714A2641D580BFD E672245E8CA5D727A576540D656E3D

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National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

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APPLICATION NUMBER	FILING OR 371(C) DATE	FIRST NAMED APPLICANT	ATTY. DOCKET NO./TITLE
17/882,082	08/05/2022	Timothy P. Heikell	N106-0002USC4

CONFIRMATION NO. 4844

29150
LEE & HAYES, P.C.
601 W. RIVERSIDE AVENUE
SUITE 1400
SPOKANE, WA 99201

POWER OF ATTORNEY NOTICE

OC000000087162624

Date Mailed: 04/11/2025

NOTICE REGARDING CHANGE OF POWER OF ATTORNEY

This is in response to the Power of Attorney filed 04/07/2025.

- The Power of Attorney to you in this application has been revoked by the applicant. Future correspondence will be mailed to the new address of record(37 CFR 1.33).

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/nhassani/

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APPLICATION NUMBER	FILING OR 371(C) DATE	FIRST NAMED APPLICANT	ATTY. DOCKET NO./TITLE
17/882,082	08/05/2022	Timothy P. Heikell	NB1-0002USC4

CONFIRMATION NO. 4844

202392
K-T Legal, PLLC
315 W. Riverside Ave. Ste 603
Spokane, WA 99201

POA ACCEPTANCE LETTER

OC000000087162728

Date Mailed: 04/11/2025

NOTICE OF ACCEPTANCE OF POWER OF ATTORNEY

This is in response to the Power of Attorney filed 04/07/2025.

The Power of Attorney in this application is accepted. Correspondence in this application will be mailed to the above address as provided by 37 CFR 1.33.

Questions about the contents of this notice and the requirements it sets forth should be directed to the Office of Data Management, Application Assistance Unit, at **(571) 272-4000** or **(571) 272-4200** or **1-888-786-0101**.

/nhassani/

AO 120 (Rev. 08/10)

TO:	REPORT ON THE FILING OR DETERMINATION OF AN ACTION REGARDING A PATENT OR TRADEMARK
Mail Stop 8 Director of the U.S. Patent and Trademark Office P.O. Box 1450 Alexandria, VA 22313-1450	

In Compliance with 35 U.S.C. § 290 and/or 15 U.S.C. § 1116 you are hereby advised that a court action has been filed in the U.S. District Court Western District of Texas - Austin Division on the following

☐ Trademarks or ☑ Patents. (☐ the patent action involves 35 U.S.C. § 292.):

DOCKET NO.	DATE FILED	U.S. DISTRICT COURT
1:22-cv-00585-ADA	12/13/2021	Western District of Texas - Austin Division

PLAINTIFF	DEFENDANT
Nobots LLC	Google LLC

	PATENT OR TRADEMARK NO.	DATE OF PATENT OR TRADEMARK	HOLDER OF PATENT OR TRADEMARK
1	9,595,008	3/14/2017	Nobots LLC
2			
3			
4			
5			

In the above---entitled case, the following patent(s)/ trademark(s) have been included:

DATE INCLUDED	INCLUDED BY ☑ Amendment ☐ Answer ☐ Cross Bill ☐ Other Pleading	
PATENT OR TRADEMARK NO.	DATE OF PATENT OR TRADEMARK	HOLDER OF PATENT OR TRADEMARK
1 11,810,014	11/7/2023	Nobots LLC
2		
3		
4		
5		

In the above---entitled case, the following decision has been rendered or judgement issued:

DECISION/JUDGEMENT

CLERK	(BY) DEPUTY CLERK	DATE

Copy 1—Upon initiation of action, mail this copy to Director Copy 3—Upon termination of action, mail this copy to Director
Copy 2—Upon filing document adding patent(s), mail this copy to Director Copy 4—Case file copy

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