

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1
 Stylesheet Version v1.2

EPAS ID: PAT5867575

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT
CONVEYING PARTY DATA	
Name	Execution Date
JOHN NICHOLAS AND KRISTIN GROSS TRUST U/A/D	11/07/2019
RECEIVING PARTY DATA	
Name:	HUMAN DIFFERENTIAL INTELLIGENCE, LLC
Street Address:	7215 BOSQUE BLVD., SUITE 150
City:	WACO
State/Country:	TEXAS
Postal Code:	76710
PROPERTY NUMBERS Total: 8	
Property Type	Number
Patent Number:	8752141
Patent Number:	9186579
Patent Number:	9192861
Patent Number:	9266023
Patent Number:	9295917
Patent Number:	9474978
Patent Number:	9789394
Application Number:	61076495
CORRESPONDENCE DATA	
Fax Number:	
<i>Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent using a fax number, if provided; if that is unsuccessful, it will be sent via US Mail.</i>	
Email:	ngross@hdintelligencellc.com
Correspondent Name:	HUMAN DIFFERENTIAL INTELLIGENCE, LLC
Address Line 1:	7215 BOSQUE BLVD., SUITE 150
Address Line 4:	WACO, TEXAS 76710
NAME OF SUBMITTER:	JOHN NICHOLAS GROSS
SIGNATURE:	/s/ John Nicholas Gross
DATE SIGNED:	12/13/2019
This document serves as an Oath/Declaration (37 CFR 1.63).	

Total Attachments: 4

source=2019.11.07 Exhibit B_Assignment of Patent Rights#page1.tif

source=2019.11.07 Exhibit B_Assignment of Patent Rights#page2.tif

source=2019.11.07 Exhibit B_Assignment of Patent Rights#page3.tif

source=2019.11.07 Exhibit B_Assignment of Patent Rights#page4.tif

ASSIGNMENT OF PATENT RIGHTS

For good and valuable consideration, the receipt of which is hereby acknowledged, John Nicholas and Kristin Gross Trust U/A/D, a revocable trust formed under the laws of the State of California, having offices at 1215 Oxford St., Berkeley, California 94709 (“**Assignor**”), does hereby sell, assign, transfer, and convey unto Human Differential Intelligence, LLC, a Texas limited liability company, with an address at 7215 Bosque Blvd., Suite 150, Waco, Texas 76710 (“**Assignee**”), or its designees, all right, title, and interest that exist today and may exist in the future in and to any and all of the following (collectively, the “**Patent Rights**”):

- (a) the patents listed in the table below (the “**Patents**”);
- (b) all patents and patent applications (i) to which any of the Patents directly or indirectly claims priority, and (ii) for which any of the Patents directly or indirectly forms a basis for priority;
- (c) all reissues, reexaminations, extensions, continuations, continuations in part, continuing prosecution applications, requests for continuing examinations, divisions, registrations of any item in any of the foregoing categories (a) and (b);
- (d) all foreign counterpart patents and foreign counterpart patent applications, that are related to any item in any of the foregoing categories (a) through (c), including, without limitation, certificates of invention, utility models, industrial design protection, design patent protection, and other governmental grants or issuances;
- (e) all items in any of the foregoing in categories (b) through (d), whether or not expressly listed as Patents below and whether or not claims in any of the foregoing have been rejected, withdrawn, cancelled, or the like;
- (f) all inventions, invention disclosures, and discoveries described in any item in any of the foregoing categories (a) through (e) and all other rights arising out of such inventions, invention disclosures, and discoveries;
- (g) all rights to apply in any or all countries of the world for patents, certificates of invention, utility models, industrial design protections, design patent protections, or other governmental grants or issuances of any type arising from any item in any of the foregoing categories (a) through (f), including, without limitation, under the Paris Convention for the Protection of Industrial Property, the International Patent Cooperation Treaty, or any other convention, treaty, agreement, or understanding;
- (i) to the extent they exist, all causes of action (whether known or unknown or whether currently pending, filed, or otherwise) and other enforcement rights under, or on account of, any of the Patents and/or any item in any of the foregoing

categories (b) through (g), including, without limitation, all causes of action and other enforcement rights for damages,
(ii) injunctive relief, and
(iii) any other remedies of any kind for past, current, and future infringement; and
all rights to collect royalties and other payments under or on account of any of the Patents and/or any item in any of the foregoing categories (b) through (h).

Patent Application No.	Filing Date	US Patent No.	Title	Inventor(s)
12/494,083	6/29/09	8,752,141	Methods for Presenting and Determining the Efficacy of Progressive Pictorial and Motion-Based CAPTCHAs	John Nicholas Gross
12/494,065	6/29/09	9,186,579	Internet Based Pictorial Game System and Method	John Nicholas Gross
14/223,848	3/24/14	9,192,861	Motion, Orientation, and Touch-Based CAPTCHAs	John Nicholas Gross
12/494,013	6/29/09	9,266,023	Pictorial Game System and Method	John Nicholas Gross
14/223,824	3/24/14	9,295,917	Progressive Pictorial and Motion Based CAPTCHAs	John Nicholas Gross
14/873,727	10/2/15	9,474,978	Internet Based Pictorial Game System and Method with Advertising	John Nicholas Gross
15/268,309	9/16/16	9,789,394	Methods for Using Simultaneous Speech Inputs to Determine An Electronic Competitive Challenge Winner	John Nicholas Gross
61/076,495	6/27/08	NA	Pictorial Game System And Method	John Nicholas Gross

Assignor represents, warrants and covenants that it owns all right, title, and interest to the Patent Rights, including, without limitation, all right, title, and interest to sue for infringement of the Patents. The Patent Rights are free and clear of all Liens. There are no actions, suits, investigations, claims, or proceedings threatened, pending, or in progress relating in any way to the Patent Rights. Assignor has the full power and authority, and has obtained all third party consents, approvals and/or other authorizations required to enter into this Agreement and to carry out its obligations hereunder, including the assignment of the Patent Rights to Assignee.

Assignor hereby authorizes the respective patent office or governmental agency in each jurisdiction to issue any and all patents, certificates of invention, utility models or other governmental grants or issuances that may be granted upon any of the Patent Rights in the name of Assignee, as the assignee to the entire interest therein

The terms and conditions of this Assignment of Patent Rights will inure to the benefit of Assignee, its successors, assigns, and other legal representatives and will be binding upon Assignor, its successors, assigns, and other legal representatives.

IN WITNESS WHEREOF this Assignment of Patent Rights is executed at Berkeley
CA on November 7th 2009

ASSIGNOR:

John Nicholas and Kristin Gross Trust U/A/D April 13, 2010

By:

Name:

Title:

John Nicholas Gross
John Nicholas Gross
Trustee

(Signature *MUST* be notarized)

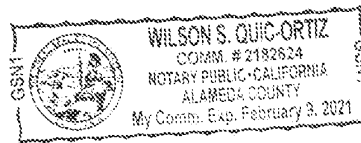
STATE OF California)
COUNTY OF Alameda) ss.

On 11/07/2014, before me, Wilson S. Quij-Ortiz,
Notary Public in and for said State, personally appeared John Nicholas Gross
personally known to me (or proved to me on the basis of satisfactory evidence) to be the
person whose name is subscribed to the within instrument and acknowledged to me that
he/she executed the same in his/her authorized capacity, and that by his/her signature on the
instrument the person, or the entity upon behalf of which the person acted, executed the
instrument.

WITNESS my hand and official seal

Signature

(Seal)





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 NUMBER	FILING OR 371(C) DATE	FIRST NAMED APPLICANT	ATTY. DOCKET NO./TITLE
14/223,848	03/24/2014	John Nicholas Gross	JNG 2009-6-DIV

CONFIRMATION NO. 4926

POA ACCEPTANCE LETTER

23694

Law Office of J. Nicholas Gross, Prof. Corp.
PO BOX 9489
BERKELEY, CA 94709



Date Mailed: 01/03/2017

NOTICE OF ACCEPTANCE OF POWER OF ATTORNEY

This is in response to the Power of Attorney filed 12/22/2016.

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.

/sleutchit/



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
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APPLICATION NUMBER	FILING OR 371(C) DATE	FIRST NAMED APPLICANT	ATTY. DOCKET NO./TITLE
14/223,848	03/24/2014	John Nicholas Gross	JNG 2009-6-DIV

CONFIRMATION NO. 4926

POWER OF ATTORNEY NOTICE



52447
PATENTBEST
1195 Park Avenue
Suite 202A
EMERYVILLE, CA 94608

Date Mailed: 01/03/2017

NOTICE REGARDING CHANGE OF POWER OF ATTORNEY

This is in response to the Power of Attorney filed 12/22/2016.

- 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).

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.

/sleutchit/

In re applications of John Nicholas Gross
Statement under 37 C.F.R. § 3.73(b) and Power of Attorney

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

IN RE PATENT APPLICATIONS OF:
John Nicholas Gross

* * *

STATEMENT UNDER 37 C.F.R. § 3.73(b) AND POWER OF ATTORNEY

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

Sir:

The John Nicholas and Kristin Gross Trust U/A/D April 13, 2010 (“the Trust”), states that it is the owner of the entire right, title, and interest in the patent applications identified below by virtue of assignments from the inventor(s) which were recorded in the assignment records of the U.S. Patent and Trademark Office on Reel 025204, at Frame 0115 on October 27, 2010.

As the assignee of the following patent applications, the Trust hereby revokes all prior powers of attorney and authorizations of agent and appoints the practitioners associated with **Customer Number 23694** as its attorney(s) and/or agent(s) to prosecute the patent applications identified below and to transact all business in the United States Patent and Trademark Office connected therewith. This Power of Attorney pertains to:

1. U.S. Provisional Patent Application No. 61/043,363, filed April 8, 2008 and given docket no. JNG 2008P-1.
2. U.S. Provisional Patent Application No. 61/074,979, filed June 23, 2008 and given docket no. JNG 2008-2P.
3. U.S. Provisional Patent Application No. 61/076,495, filed June 27, 2008 and given docket no. JNG 2008-3P.
4. U.S. Patent Application No. 12/484,800, filed June 15, 2009 and given docket no. JNG 2009-1.
5. U.S. Patent Application No. 12/484,837, filed June 15, 2009 and given docket no. JNG 2009-2.

6. U.S. Patent Application No. 12/484,870, filed June 15, 2009 and given docket no. JNG 2009-3.
7. U.S. Patent Application No. 12/494,013, filed June 29, 2009 and given docket no. JNG 2009-4.
8. U.S. Patent Application No. 12/494,065, filed June 29, 2009 and given docket no. JNG 2009-5.
9. U.S. Patent Application No. 12/494,083, filed June 29, 2009 and given docket no. JNG 2009-6.
10. U.S. Patent Application No. 12/335,247, filed December 15, 2008 and given docket no. JNG 2008-10.
11. U.S. Patent Application No. 13/193,847, filed July 29, 2011 and given docket no. JNG 2008-10C1. (A continuation of Application No. 12/335,247.)
12. U.S. Patent Application No. 13/651,279, filed October 12, 2012 and given docket no. JNG 2008-10C2. (A continuation of Application No. 12/335,247.)
13. U.S. Patent Application No. 13/651,171, filed October 12, 2012 and given docket no. JNG 2008-10DIV1. (A divisional of Application No. 12/335,247.)
14. U.S. Patent Application No. 13/651,197, filed October 12, 2012 and given docket no. JNG 2008-10DIV2. (A divisional of Application No. 12/335,247.)
15. U.S. Patent Application No. 13/651,229, filed October 12, 2012 and given docket no. JNG 2008-10DIV3. (A divisional of Application No. 12/335,247.)
16. U.S. Patent Application No. 13/651,243, filed October 12, 2012, and given docket no. JNG 2008-10DIV4. (A divisional of Application No. 12/335,247.)
17. U.S. Patent Application No. 13/651,254, filed October 12, 2012 and given docket no. JNG 2008-10DIV5. (A divisional of Application No. 12/335,247.)
18. U.S. Patent Application No. 13/651,267, filed October 12, 2012 and given docket no. JNG 2008-10DIV6. (A divisional of Application No. 12/335,247.)

In re applications of John Nicholas Gross
Statement under 37 C.F.R. § 3.73(b) and Power of Attorney

Please direct all correspondence in the above-identified patent applications to the correspondence address associated with **Customer No. 23694**. The undersigned is authorized to sign and act on behalf of the Trust in this matter.

Respectfully submitted,

Date: 12/22/2016

By: /J. Nicholas Gross/

J. Nicholas Gross
Trustee

Electronic Acknowledgement Receipt	
EFS ID:	27886467
Application Number:	14223848
International Application Number:	
Confirmation Number:	4926
Title of Invention:	Motion, Orientation, and Touch-Based CAPTCHAs
First Named Inventor/Applicant Name:	John Nicholas Gross
Customer Number:	52447
Filer:	Andrew James McAleavey/Christopher Dobel
Filer Authorized By:	Andrew James McAleavey
Attorney Docket Number:	JNG 2009-6-DIV
Receipt Date:	22-DEC-2016
Filing Date:	24-MAR-2014
Time Stamp:	17:38:49
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	no
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File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Power of Attorney	PoAand373-rev.pdf	72039	no	3
			e05153e71e821eaf5c96e3422affa2962bb3e097		

Warnings:

Information:	
Total Files Size (in bytes):	72039
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. <u>New Applications Under 35 U.S.C. 111</u> 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. <u>National Stage of an International Application under 35 U.S.C. 371</u> 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. <u>New International Application Filed with the USPTO as a Receiving Office</u> 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
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
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Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	ISSUE DATE	PATENT NO.	ATTORNEY DOCKET NO.	CONFIRMATION NO.
14/223,848	11/24/2015	9192861	JNG 2009-6-DIV	4926

52447 7590 11/04/2015
PATENTBEST
1195 Park Avenue
Suite 202A
EMERYVILLE, CA 94608

ISSUE NOTIFICATION

The projected patent number and issue date are specified above.

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 Application Information Retrieval (PAIR) WEB site (<http://pair.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 Data Management (ODM) at (571)-272-4200.

APPLICANT(s) (Please see PAIR WEB site <http://pair.uspto.gov> for additional applicants):

The John Nicholas and Kristin Gross Trust U/A/D April 13, 2010, Berkeley, CA;
John Nicholas Gross, Berkeley, CA;

The United States represents the largest, most dynamic marketplace in the world and is an unparalleled location for business investment, innovation, and commercialization of new technologies. The USA offers tremendous resources and advantages for those who invest and manufacture goods here. Through SelectUSA, our nation works to encourage and facilitate business investment. To learn more about why the USA is the best country in the world to develop technology, manufacture products, and grow your business, visit SelectUSA.gov.

PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), to: **Mail** **Mail Stop ISSUE FEE**
Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450
or Fax (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)

52447 7590 07/27/2015
PATENTBEST
1195 Park Avenue
Suite 202A
EMERYVILLE, CA 94608

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 facsimile transmitted to the USPTO (571) 273-2885, on the date indicated below.

(Depositor's name)
(Signature)
(Date)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
14/223,848	03/24/2014	John Nicholas Gross	JNG 2009-6-DIV	4926

TITLE OF INVENTION: PROGRESSIVE PICTORIAL & MOTION BASED CAPTCHAS

APPLN. TYPE	ENTITY STATUS	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	SMALL	\$480	\$0	\$0	\$480	10/27/2015

EXAMINER	ART UNIT	CLASS-SUBCLASS
LANEAU, RONALD	3714	463-009000

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 03-02 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 PatentBest

2 Andrew McAleavey

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 has been filed for recordation as set forth in 37 CFR 3.11. Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE

(B) RESIDENCE: (CITY and STATE OR COUNTRY)

John Nicholas and Kristin Gross Trust U/A/D
April 13, 2010

Berkeley, CA

Please check the appropriate assignee category or categories (will not be printed on the patent): ☐ Individual ☒ Corporation or other private group entity ☐ Government

4a. The following fee(s) are submitted:

- ☒ Issue Fee
- ☒ Publication Fee (No small entity discount permitted)
- ☐ Advance Order - # of Copies _____

4b. Payment of Fee(s): (Please first reapply any previously paid issue fee shown above)

- ☐ A check is enclosed.
- ☐ Payment by credit card. Form PTO-2038 is attached.
- ☒ The director is hereby authorized to charge the required fee(s), any deficiency, or credits any overpayment, to Deposit Account Number 501-244 (enclose an extra copy of this form).

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 /Andrew McAleavey/

Typed or printed name Andrew McAleavey

Date October 19, 2015

Registration No. 50,535

Electronic Patent Application Fee Transmittal				
Application Number:		14223848		
Filing Date:		24-Mar-2014		
Title of Invention:		Motion, Orientation, and Touch-Based CAPTCHAs		
First Named Inventor/Applicant Name:		John Nicholas Gross		
Filer:		Andrew James McAleavey		
Attorney Docket Number:		JNG 2009-6-DIV		
Filed as Small Entity				
Filing Fees for Utility under 35 USC 111(a)				
Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
Basic Filing:				
Pages:				
Claims:				
Miscellaneous-Filing:				
Petition:				
Patent-Appeals-and-Interference:				
Post-Allowance-and-Post-Issuance:				

Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
Utility Appl Issue Fee	2501	1	480	480
Publ. Fee- Early, Voluntary, or Normal	1504	1	0	0
Extension-of-Time:				
Miscellaneous:				
Total in USD (\$)				480

Electronic Acknowledgement Receipt	
EFS ID:	23821733
Application Number:	14223848
International Application Number:	
Confirmation Number:	4926
Title of Invention:	Motion, Orientation, and Touch-Based CAPTCHAs
First Named Inventor/Applicant Name:	John Nicholas Gross
Customer Number:	52447
Filer:	Andrew James McAleavey
Filer Authorized By:	
Attorney Docket Number:	JNG 2009-6-DIV
Receipt Date:	19-OCT-2015
Filing Date:	24-MAR-2014
Time Stamp:	14:41:47
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	Deposit Account
Payment was successfully received in RAM	\$480
RAM confirmation Number	1101
Deposit Account	501244
Authorized User	GROSS, J NICHOLAS
The Director of the USPTO is hereby authorized to charge indicated fees and credit any overpayment as follows: Charge any Additional Fees required under 37 C.F.R. Section 1.16 (National application filing, search, and examination fees) Charge any Additional Fees required under 37 C.F.R. Section 1.17 (Patent application and reexamination processing fees)	

Charge any Additional Fees required under 37 C.F.R. Section 1.19 (Document supply fees)					
Charge any Additional Fees required under 37 C.F.R. Section 1.20 (Post Issuance fees)					
Charge any Additional Fees required under 37 C.F.R. Section 1.21 (Miscellaneous fees and charges)					
File Listing:					
Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Oath or Declaration filed	Declaration.pdf	51597 f49ed9db4ccb0db425f8e66d88d41801dba ba15	no	1
Warnings:					
Information:					
2	Issue Fee Payment (PTO-85B)	IFTransmittal.pdf	87511 3214557751f0d806c30ead7bbfd6af7bc12c 286f	no	1
Warnings:					
Information:					
3	Fee Worksheet (SB06)	fee-info.pdf	32255 4df16c68a2ce58ab5e3544a2bd4b6f81d11 91c06	no	2
Warnings:					
Information:					
Total Files Size (in bytes):			171363		
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. <u>New Applications Under 35 U.S.C. 111</u> 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. <u>National Stage of an International Application under 35 U.S.C. 371</u> 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. <u>New International Application Filed with the USPTO as a Receiving Office</u> 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.					

DECLARATION

(FOR AN APPLICATION WITH AN APPLICATION DATA SHEET)

As the below named inventor(s), I/we declare that:

This declaration is directed to

 X Application No. 14/223,848, filed on March 24, 2014, entitled
“Progressive Pictorial & Motion Based Captchas”
and assigned Docket No. JNG 2009-6-DIV

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 (5) years, or both.

Inventor: John Nicholas Gross

Signature: _____/John Nicholas Gross/____

Date: October 19, 2015



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
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P.O. Box 1450
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
14/223,848	03/24/2014	3714	800	JNG 2009-6-DIV	12	2

CONFIRMATION NO. 4926
CORRECTED FILING RECEIPT

52447
PATENTBEST
1195 Park Avenue
Suite 202A
EMERYVILLE, CA 94608



0000000078088411

Date Mailed: 10/16/2015

Receipt is acknowledged of this non-provisional 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 APPLICANT, 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 Filing Receipt Correction. Please provide a copy of this Filing Receipt with the changes noted thereon. If you received a "Notice to File Missing Parts" for this application, please submit any corrections 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**

Inventor(s)

John Nicholas Gross, Berkeley, CA;

Applicant(s)

The John Nicholas and Kristin Gross Trust U/A/D April 13, 2010, Berkeley, CA;

Assignment For Published Patent Application

The John Nicholas and Kristin Gross Trust U/A/D April 30, 2010, Berkeley, CA

Power of Attorney: The patent practitioners associated with Customer Number 52447

Domestic Priority data as claimed by applicant

This application is a DIV of 12/494,083 06/29/2009 PAT 8752141
which claims benefit of 61/076,495 06/27/2008

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.

If Required, Foreign Filing License Granted: 04/15/2014

The country code and number of your priority application, to be used for filing abroad under the Paris Convention, is **US 14/223,848**

Projected Publication Date: Not Applicable

Non-Publication Request: No

Early Publication Request: No

**** SMALL ENTITY ****

Title

Motion, Orientation, and Touch-Based CAPTCHAs

Preliminary Class

463

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 Assets Control, 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).

SelectUSA

The United States represents the largest, most dynamic marketplace in the world and is an unparalleled location for business investment, innovation, and commercialization of new technologies. The U.S. offers tremendous resources and advantages for those who invest and manufacture goods here. Through SelectUSA, our nation works to promote and facilitate business investment. SelectUSA provides information assistance to the international investor community; serves as an ombudsman for existing and potential investors; advocates on behalf of U.S. cities, states, and regions competing for global investment; and counsels U.S. economic development organizations on investment attraction best practices. To learn more about why the United States is the best country in the world to develop technology, manufacture products, deliver services, and grow your business, visit <http://www.SelectUSA.gov> or call +1-202-482-6800.



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

NOTICE OF ALLOWANCE AND FEE(S) DUE

52447 7590 07/27/2015
PATENTBEST
1195 Park Avenue
Suite 202A
EMERYVILLE, CA 94608

EXAMINER

LANEAU, RONALD

ART UNIT

PAPER NUMBER

3714

DATE MAILED: 07/27/2015

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
14/223,848	03/24/2014	John Nicholas Gross	JNG 2009-6-DIV	4926

TITLE OF INVENTION: PROGRESSIVE PICTORIAL & MOTION BASED CAPTCHAS

APPLN. TYPE	ENTITY STATUS	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	SMALL	\$480	\$0	\$0	\$480	10/27/2015

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 1/2 the amount of undiscounted fees, and micro entity fees are 1/2 the amount of small entity 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 and an extra copy of the form should be submitted. 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: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

PART B - FEE(S) TRANSMITTAL

**Complete and send this form, together with applicable fee(s), to: Mail Mail Stop ISSUE FEE
Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450
or Fax (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)

52447 7590 07/27/2015
PATENTBEST
1195 Park Avenue
Suite 202A
EMERYVILLE, CA 94608

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 facsimile transmitted to the USPTO (571) 273-2885, on the date indicated below.

(Depositor's name)
(Signature)
(Date)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
14/223,848	03/24/2014	John Nicholas Gross	JNG 2009-6-DIV	4926

TITLE OF INVENTION: PROGRESSIVE PICTORIAL & MOTION BASED CAPTCHAS

APPLN. TYPE	ENTITY STATUS	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	SMALL	\$480	\$0	\$0	\$480	10/27/2015

EXAMINER	ART UNIT	CLASS-SUBCLASS
LANEAU, RONALD	3714	463-009000

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 03-02 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 has been filed for recordation as set forth in 37 CFR 3.11. 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. The following fee(s) are submitted:

- ☐ Issue Fee
- ☐ Publication Fee (No small entity discount permitted)
- ☐ Advance Order - # of Copies _____

4b. Payment of Fee(s): (**Please first reapply any previously paid issue fee shown above**)

- ☐ A check is enclosed.
- ☐ Payment by credit card. Form PTO-2038 is attached.
- ☐ The director is hereby authorized to charge the required fee(s), any deficiency, or credits any overpayment, to Deposit Account Number _____ (enclose an extra copy of this form).

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

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.
14/223,848	03/24/2014	John Nicholas Gross	JNG 2009-6-DIV	4926
52447 7590 07/27/2015 PATENTBEST 1195 Park Avenue Suite 202A EMERYVILLE, CA 94608			EXAMINER LANEAU, RONALD	
			ART UNIT	PAPER NUMBER
			3714	

DATE MAILED: 07/27/2015

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.

<i>Notice Requiring Inventor's Oath or Declaration</i>	Application No. 14/223,848	Applicant(s) John Nicholas Gross	
	Examiner LANEAU, RONALD	Art Unit 3714	

This notice is an attachment to the Notice of Allowability (PTOL-37), or the Notice of Allowability For A Design Application (PTOL-37D).

An inventor's oath or declaration in compliance with 37 CFR 1.63 or 1.64 executed by or with respect to each inventor has not yet been submitted.

An oath or declaration in compliance with 37 CFR 1.63, or a substitute statement in compliance with 37 CFR 1.64, executed by or with respect to each inventor (for any inventor for which a compliant oath, declaration, or substitute statement has not yet been submitted) **MUST** be filed no later than the date on which the issue fee is paid. See 35 U.S.C. 115(f). Failure to timely comply will result in ABANDONMENT of this application.

A properly executed inventor's oath to declaration has not been received for the following inventor(s):

If applicant previously filed one or more oaths, declarations, or substitute statements, applicant may have received an informational notice regarding deficiencies therein.

The following deficiencies are noted:

INFORMAL ACTION PROBLEMS

- A properly executed inventor's oath or declaration has not been received for the following inventor(s): **John Nicholas Gross**.

Applicant may submit the inventor's oath or declaration at any time before the Notice of Allowance and Fee(s) Due, PTOL-85, is mailed.

Questions relating to this Notice should be directed to the Application Assistance Unit at 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 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, 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. 14/223,848	Applicant(s) GROSS, JOHN NICHOLAS	
	Examiner RONALD LANEAU	Art Unit 3714	AIA (First Inventor to File) 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 06/02/15.
☐ 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 1-20. 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: ____.

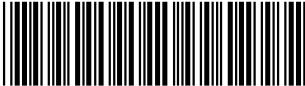
Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

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 <u>06/02/2015</u> 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 _____.
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/Ronald Laneau/
Primary Examiner
Art Unit: 3714

Search Notes 	Application/Control No. 14223848	Applicant(s)/Patent Under Reexamination GROSS, JOHN NICHOLAS
	Examiner RONALD LANEAU	Art Unit 3714

CPC- SEARCHED		
Symbol	Date	Examiner

CPC COMBINATION SETS - SEARCHED		
Symbol	Date	Examiner

US CLASSIFICATION SEARCHED			
Class	Subclass	Date	Examiner
463	9-13. 16, 20	12/17/2014	RL
726	3-5, 17, 21	12/17/2014	RL
463	9-13. 16, 20	6/26/2015	RL
726	3-5, 17, 21	6/26/2015	RL

SEARCH NOTES		
Search Notes	Date	Examiner
East Search	12/18/2014	RL
Inventor Search	6/26/2015	RL
East Search & CPC Search	6/26/2015	RL

INTERFERENCE SEARCH			
US Class/ CPC Symbol	US Subclass / CPC Group	Date	Examiner
463	9.	6/26/2015	RL
see East Search		6/26/2015	RL

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UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
 United States Patent and Trademark Office
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 Alexandria, Virginia 22313-1450
 www.uspto.gov

BIB DATA SHEET

CONFIRMATION NO. 4926

SERIAL NUMBER 14/223,848	FILING or 371(c) DATE 03/24/2014 RULE	CLASS 463	GROUP ART UNIT 3714	ATTORNEY DOCKET NO. JNG 2009-6-DIV		
APPLICANTS The John Nicholas and Kristin Gross Trust U/A/D April 13, 2010, Berkeley, CA; INVENTORS John Nicholas Gross, Berkeley, CA; ** CONTINUING DATA ***** This application is a DIV of 12/494,083 06/29/2009 PAT 8752141 which claims benefit of 61/076,495 06/27/2008 ** FOREIGN APPLICATIONS ***** ** IF REQUIRED, FOREIGN FILING LICENSE GRANTED ** ** SMALL ENTITY ** 04/15/2014						
Foreign Priority claimed ☐ Yes ☒ No 35 USC 119(a-d) conditions met ☐ Yes ☒ No Verified and /RONALD LANEAU/ Acknowledged Examiner's Signature		☐ Met after Allowance Initials	STATE OR COUNTRY CA	SHEETS DRAWINGS 16	TOTAL CLAIMS 12	INDEPENDENT CLAIMS 2
ADDRESS PATENTBEST 1195 Park Avenue Suite 202A EMERYVILLE, CA 94608 UNITED STATES						
TITLE Progressive Pictorial & Motion Based CAPTCHAs						
FILING FEE RECEIVED 800	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			

EAST Search History

EAST Search History (Prior Art)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	296	("20020013708" "20020016196" "20020090993" "20030004719" "20030022717" "20030033145" "20030093280" "20030125944" "20030163316" "20030182119" "20030194211" "20030214553" "20030217336" "20040019485" "20040102975" "20040125877" "20040158495" "20040249628" "20040254793" "20050071163" "20050105712" "20050114137" "20050114705" "20050159206" "20050159950" "20050171851" "20050184461" "20050185847" "20050228641" "20050267752" "20060074677" "20060248019" "20060277045" "20070016689" "20070018393" "20070043681" "20070071206" "20070073630" "20070112570" "20070113294" "20070162761" "20070165821" "20070213111" "20070271830" "20070280436" "20070282605" "20080072293" "20080127302" "20080140420" "20080175174" "20080216163" "20090012855" "20090013391" "20090042648" "20090055193" "20090077629" "20090113294" "20090150983" "20090204819" "20090241174" "20090249476" "20090259468" "20090280895" "20090297064" "20090309698" "20090313694" "20090319270" "20090319271" "20090319274" "20090325661" "20090325696" "20090328150" "20100049526" "20100077210" "20110098117" "20110201396" "20120100910" "20140020084" "20140289828" "20140295927" "4441201" "5465982" "5774837" "5897616" "5933803" "5940799" "5991617" "6014441" "6157912" "6191777" "6195698" "6208970" "6397181" "6546369" "6681205" "6697769" "6699127" "6763373" "6851051" "6878062" "6879956" "7222072" "7505946" "7516220" "7603706" "7679604" "7707251" "7725395" "7785180" "7797191" "7827265" "7841940" "7887058" "7909695" "7917508" "7929805" "7945952" "8005197" "8019127"	US- PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2015/06/26 11:39

		"8032481" "8032483" "8036902" "8166388" "8380503" "8403761" "8601538" "8752141").PN.				
L2	44629	(463/9-13 or 463/16 or 463/20 or 726/3-5 or 726/17 or 726/21).cls.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2015/06/26 13:43
L3	36965	(A63F13/10 OR A63F9/24 OR A63F13/12 OR A63F13/005 OR G07F17/32).cpc.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2015/06/26 13:51
L4	13287	2 AND ((H04L63/08 OR H04L63/10 OR H04L63/083 OR H04L63/0861 OR H04L63/0884 OR H04L63/0838 OR H04L63/0876 OR H04L63/102 OR H04L67/10 OR H04L63/0428 OR H04L63/061 OR H04L63/101 OR H04L63/105 OR H04L51/04 OR H04L63/04 OR H04L63/0815 OR H04L63/0853 OR H04L63/12 OR H04L63/123 OR H04L63/1408 OR H04L63/145 OR H04L67/02 OR H04L67/26 OR H04L67/42 OR H04L9/3231 OR H04L9/3234 OR H04L12/1813 OR H04L12/2812 OR H04L12/2856 OR H04L2209/76 OR H04L2209/80 OR H04L2463/102 OR H04L29/06972 OR H04L29/0809 OR H04L41/0645 OR H04L41/0816 OR H04L41/5019 OR H04L43/04 OR H04L47/70 OR H04L51/08 OR H04L63/0236 OR H04L63/0272 OR H04L63/0281 OR H04L63/029 OR H04L63/0457 OR H04L63/064 OR H04L63/065 OR H04L63/0823 OR H04L63/107 OR H04L63/126 OR H04L63/1416 OR H04L63/1466 OR H04L63/168 OR H04L63/20 OR H04L63/205 OR H04L65/403 OR H04L67/104 OR H04L67/22 OR H04L67/24 OR H04L67/30 OR H04L67/306 OR H04L69/329 OR H04L9/0816 OR H04L9/32 OR H04L9/321 OR H04L9/3226 OR H04L9/3247 OR G07F17/34 OR G07F17/3213 OR G07F17/3293 OR G07F17/3225 OR G07F17/3262 OR G07F17/3267 OR G07F7/0873 OR G07F7/10 OR A63F13/52 OR A63F13/58 OR A63F13/795 OR A63F13/822 OR A63F13/828).CPC. AND (726/4 OR 726/5 OR 726/3 OR 726/7 OR 726/17 OR 726/1 OR 726/21 OR 726/6 OR 726/9 OR 463/20 OR 463/13 OR 463/9 OR 463/11).OCLS. AND (H04L29/06 OR H04L29/08 OR H04L12/24 OR H04L12/58 OR H04L9/32 OR H04L12/26 OR H04L12/911 OR G07F17/34 OR G07F17/32 OR A63F13/52 OR A63F13/58 OR A63F13/795 OR A63F13/822 OR A63F13/828).IPCR.)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2015/06/26 13:52
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		H04L65/80 OR H04L67/10 OR H04L67/22 OR H04L67/2847 OR H04L67/34 OR H04L67/36).CPC. AND (463/31 OR 463/25 OR 463/42 OR 463/29 OR 463/7 OR 463/20 OR 463/36 OR 463/43 OR 463/13 OR 463/17 OR 463/37 OR 463/39 OR 463/40 OR 463/9 OR 463/12 OR 463/16 OR 463/23 OR 463/24 OR 463/27 OR 463/6).CCLS. AND (G07F17/32 OR G07F17/34 OR A63F13/30 OR A63F13/35 OR A63F9/24 OR A63F13/211 OR A63F13/327 OR A63F13/71 OR A63F1/00 OR A63F13/00 OR A63F13/213 OR A63F13/40 OR A63F13/77 OR A63F13/2145 OR A63F13/215 OR A63F13/235 OR A63F13/42 OR A63F13/50 OR A63F13/63 OR A63F13/69 OR A63F13/73 OR A63F13/79 OR A63F13/814 OR A63F13/86 OR A63F13/87 OR A63F13/92 OR A63F11/00 OR A63F13/212 OR A63F13/24 OR A63F13/26 OR A63F13/285 OR A63F13/352 OR A63F13/355 OR A63F13/45 OR A63F13/48 OR A63F13/497 OR A63F13/52 OR A63F13/53 OR A63F13/537 OR A63F13/55 OR A63F13/58 OR A63F13/798 OR A63F13/80 OR A63F13/803 OR A63F13/847 OR A63F3/00 OR A63F9/06 OR A63F9/10).IPCR.)				
L6	2	4 and 5 and (motion or orientation) and (electronic adj image) and (computing adj device)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2015/06/26 14:45
L7	0	(user adj (movement or manipulation)) and (manipulation adj instruction) and 4 and 5	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2015/06/26 14:46
S1	7	(computing adj device) and (sensory adj data) and (manipulation adj challenge)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2014/12/18 11:39
S2	7	(user adj (movement or manipulation)) and (manipulation adj instruction) and (elect\$3 near3 challenge)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2014/12/18 11:40
S3	1799	(motion or orientation) and (electronic adj image) and (computing adj device)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2014/12/18 11:41
S4	259	S3 and (automatic\$4 near3 processing)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2014/12/18 11:43
S5	259	S4 and (motion or orientation)	US-	OR	ON	2014/12/18

			PGPUB; USPAT; EPO; JPO; DERWENT			11:44
S6	6	S4 and (sensory adj data)	US- PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2014/12/18 11:44
S7	2	("2009/0325661").URPN.	USPAT	OR	OFF	2014/12/18 11:44
S8	35	(virtual adj compass) and (set near5 instruction) and ((portable or mobile) adj device)	US- PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2014/12/18 11:47
S9	6	S8 and (electronic adj image)	US- PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2014/12/18 11:48
S10	35	S8 and (motion or orientation)	US- PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2014/12/18 11:49
S11	6	S10 and (sensory adj data)	US- PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2014/12/18 11:49
S12	61	S5 and challenge	US- PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2014/12/18 12:04
S13	60	S12 and (gui or interface)	US- PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2014/12/18 12:04
S14	42	(automatic\$4 near5 (sensory adj data))	US- PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2014/12/18 12:05
S15	27	S14 and threshold	US- PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2014/12/18 12:05
S16	6	S15 and (virtual adj compass)	US- PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2014/12/18 12:13
S17	11	S15 and ((portable or mobile) adj device)	US- PGPUB; USPAT; EPO; JPO;	OR	ON	2014/12/18 12:14

EAST Search History

			DERWENT			
S18	0	("2013/0166726").URPN.	USPAT	OR	OFF	2014/12/18 12:15

6/ 26/ 2015 2:52:33 PM

C:\Users\rlaneau\Documents\EAST\Workspaces\14223848.wsp

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)	Application Number	14223848
	Filing Date	2014-03-24
	First Named Inventor	GROSS, JOHN NICHOLAS
	Art Unit	3714
	Examiner Name	LANEAU, RONALD
	Attorney Docket Number	JNG 2009-6-DIV

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
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	7	5991617	A	1999-11-23	POWELL, MICHAEL B.	
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	13	6397181	B1	2002-05-28	LI, HAIZHOU, et al.	
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	21	6879956	B1	2005-04-12	HONDA, HITOSHI, et al.	
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	43	8166388	B2	2012-04-24	GOUNARES, ALEXANDER, et al.	
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	47	8752141	B2	2014-06-10	GROSS, JOHN NICHOLAS	

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	16	20040125877	A1	2004-07-01	CHANG, SHIN-FU, et al.	
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	Filing Date	2014-03-24
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	Art Unit	3714
	Examiner Name	LANEAU, RONALD
	Attorney Docket Number	JNG 2009-6-DIV

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	Attorney Docket Number	JNG 2009-6-DIV

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	First Named Inventor	GROSS, JOHN NICHOLAS	
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	Attorney Docket Number	JNG 2009-6-DIV	

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	Art Unit	3714
	Examiner Name	LANEAU, RONALD
	Attorney Docket Number	JNG 2009-6-DIV

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	Attorney Docket Number		JNG 2009-6-DIV	

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	1	2008025019	WO		2008-02-28	DYNAMIC REPRESENTATION SYSTEMS, LLC.		☐
	2	2045754	EP		2009-04-08	JOOSTEN. ET AL.		☐
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	Filing Date	2014-03-24
	First Named Inventor	GROSS, JOHN NICHOLAS
	Art Unit	3714
	Examiner Name	LANEAU, RONALD
Attorney Docket Number		JNG 2009-6-DIV

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EXAMINER SIGNATURE

Examiner Signature	/Ronald Laneau/	Date Considered	06/26/2015
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*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.

Issue Classification 	Application/Control No. 14223848	Applicant(s)/Patent Under Reexamination GROSS, JOHN NICHOLAS	
	Examiner RONALD LANEAU	Art Unit 3714	

CPC					
Symbol				Type	Version
A63F	13	12		F	2013-01-01
A63F	2300	638		A	2013-01-01
A63F	2009	0661		A	2013-01-01
A63F	3	0423		A	2013-01-01
A63F	13	30		I	2014-09-02
A63F	2300	558		A	2013-01-01
A63F	2300	572		A	2013-01-01
A63F	2300	8094		A	2013-01-01
G06F	21	31		A	2013-01-01
G06F	2221	2133		A	2013-01-01

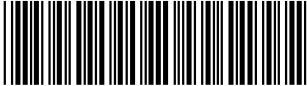
CPC Combination Sets				
Symbol	Type	Set	Ranking	Version

NONE		Total Claims Allowed:	
(Assistant Examiner)	(Date)	20	
/RONALD LANEAU/ Primary Examiner, Art Unit 3714	06/26/2015	O.G. Print Claim(s)	O.G. Print Figure
(Primary Examiner)	(Date)	1	3D,8

Issue Classification 	Application/Control No. 14223848	Applicant(s)/Patent Under Reexamination GROSS, JOHN NICHOLAS
	Examiner RONALD LANEAU	Art Unit 3714

US ORIGINAL CLASSIFICATION						INTERNATIONAL CLASSIFICATION													
CLASS			SUBCLASS			CLAIMED					NON-CLAIMED								
463			9			G	0	6	F	17 / 00 (2006.01.01)									
CROSS REFERENCE(S)																			
CLASS	SUBCLASS (ONE SUBCLASS PER BLOCK)																		

NONE		Total Claims Allowed:	
		20	
(Assistant Examiner)	(Date)		
/RONALD LANEAU/ Primary Examiner. Art Unit 3714	06/26/2015	O.G. Print Claim(s)	O.G. Print Figure
(Primary Examiner)	(Date)	1	3D,8

Issue Classification 	Application/Control No. 14223848	Applicant(s)/Patent Under Reexamination GROSS, JOHN NICHOLAS
	Examiner RONALD LANEAU	Art Unit 3714

☐ Claims renumbered in the same order as presented by applicant ☐ CPA ☐ T.D. ☐ R.1.47															
Final	Original	Final	Original	Final	Original	Final	Original	Final	Original	Final	Original	Final	Original	Final	Original
1	1	17	17												
2	2	18	18												
4	3	19	19												
5	4	20	20												
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8	16														

NONE		Total Claims Allowed:	
		20	
(Assistant Examiner)	(Date)		
/RONALD LANEAU/ Primary Examiner. Art Unit 3714	06/26/2015	O.G. Print Claim(s)	O.G. Print Figure
(Primary Examiner)	(Date)	1	3D,8

<i>Index of Claims</i> 	Application/Control No. 14223848	Applicant(s)/Patent Under Reexamination GROSS, JOHN NICHOLAS
	Examiner RONALD LANEAU	Art Unit 3714

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

☐ Claims renumbered in the same order as presented by applicant				☐ CPA		☐ T.D.		☐ R.1.47	
CLAIM		DATE							
Final	Original	12/18/2014	06/26/2015						
1	1	=	=						
2	2	=	=						
4	3	=	=						
5	4	=	=						
6	5	=	=						
7	6	=	=						
9	7	=	=						
12	8	=	=						
13	9	✓	=						
14	10	✓	=						
15	11	=	=						
16	12	=	=						
10	13		=						
11	14		=						
3	15		=						
8	16		=						
17	17		=						
18	18		=						
19	19		=						
20	20		=						

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

IN RE PATENT APPLICATION OF:	CONFIRMATION NO. 4926
John Nicholas Gross	DOCKET: JNG 2009-6-DIV
APPLICATION NO.: 14/223,848	EXAMINER: LANEAU, R.
FILING DATE: March 24, 2014	ART UNIT: 3714
TITLE: Motion, Orientation, and Touch-Based CAPTCHAs (As Amended)	

* * *

AMENDMENT AND RESPONSE UNDER 37 C.F.R. § 1.111

MAIL STOP AMENDMENT
Hon. Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Madam:

In response to the non-final Office Action mailed February 3, 2015, please enter the following amendments and remarks.

Additionally, Applicant respectfully petitions under 37 C.F.R. § 1.136(a) for a one-month extension of time, extending the due date for response one month, from May 3, 2015 to June 3, 2015. The small entity fee for this petition accompanies this response. Any missing fee may be charged to deposit account no. 501-244. If any additional extensions of time are needed, Applicant hereby petitions for those extensions as well, and any additional fees may also be charged to the above deposit account.

AMENDMENTS

IN THE SPECIFICATION:

Please cancel the existing title and enter the following new title for the application:

Motion, Orientation, and Touch-Based CAPTCHAs

IN THE CLAIMS:

Please enter the following set of claims, which include new claims 13-20:

1. (Currently Amended) A method of providing a motion and/or orientation-based Completely Automatic Public Turing Test To Tell Humans And Computers Apart (CAPTCHA) challenge on a portable computing device comprising:

- a. automatically electing a manipulation challenge for a user with the portable computing device, wherein said manipulation challenge includes a set of physical manipulation instructions for the portable computing device for the user;
- b. automatically processing sensory data associated with user movements and/or manipulations of the portable computing device; and
- c. automatically determining if said user movements and/or manipulations from the user meet a required threshold for satisfying said set of manipulation instructions to qualify said user as a human.

2. (Original) The method of claim 1, wherein the set of physical manipulation instructions for the motion and/or orientation based CAPTCHA challenge are presented in an electronic image.

3. (Original) The method of claim 1, wherein the set of physical manipulation instructions for the motion and/or orientation based CAPTCHA challenge are presented in audible form by a text to speech engine operating on the portable computing device.

4. (Original) The method of claim 1, wherein said set of physical manipulation instructions requires the user to move the portable computing device so as to manipulate objects presented in an interface.

5. (Original) The method of claim 1, wherein said set of physical manipulation instructions require the user to orient a needle of a virtual compass in a specified direction.

6. (Original) The method of claim 1, wherein said set of physical manipulation instructions require the user to speak or blow into a microphone.

7. (Original) The method of claim 1, wherein the motion and/or orientation based CAPTCHA challenge is embodied in computer readable form and implemented as a routine executing on the portable computing device.

8. (Currently Amended) A method of providing a touch-based Completely Automatic Public Turing Test To Tell Humans And Computers Apart (CAPTCHA) challenge on a portable computing device comprising:

- a. automatically electing a manipulation challenge for a user with the portable computing device, wherein said manipulation challenge includes a set of physical touch instructions for the portable computing device for the user;
- b. automatically processing touch sensory data associated with user movements and/or manipulations of objects within a graphical interface of the portable computing device; and
- c. automatically determining if said user touch sensory data meets a required threshold for satisfying said set of physical touch instructions to qualify said user as a human.

9. (Currently Amended) The method of claim 8, wherein the set of physical touch instructions for the ~~motion and/or orientation-based~~ touch-based CAPTCHA challenge are presented in an electronic image.

10. (Currently Amended) The method of claim 8, wherein the set of physical touch instructions for the ~~motion and/or orientation-based~~ touch-based CAPTCHA challenge are presented in audible form by a text to speech engine operating on the portable computing device.

11. (Original) The method of claim 8, wherein said set of physical touch instructions require the user to arrange a set of letters on the graphical interface.

12. (Original) The method of claim 8, wherein the touch based CAPTCHA challenge is embodied in computer readable form and implemented as a routine executing on the portable computing device.

13. (New) The method of claim 1, wherein the user is required to move the portable computing device so as to cause some action between objects in a scene presented in an interface of the portable computing device.

14. (New) The method of claim 1, wherein said manipulation challenge is used for unlocking and/or accessing the portable device.

15. (New) The method of claim 2, wherein said electronic image is presented in degraded form.

16. (New) The method of claim 6, wherein a speech response from the user is processed and used to determine if it matches a human voice or a machine voice, and further whether it contains a description of an image presented in an interface of the portable computing device.

17. (New) The method of claim 8, wherein the user is required to move the portable computing device so as to cause some action between objects in a scene presented in an interface of the portable computing device.

18. (New) The method of claim 8, wherein said manipulation challenge is used for unlocking and/or accessing the portable device.

19. (New) The method of claim 8 wherein said electronic image is presented in degraded form.

20. (New) The method of claim 8, wherein a speech response from the user is processed and used to determine if it matches a human voice or a machine voice, and further whether it contains a description of an image presented in an interface of the portable computing device.

REMARKS

After entry of this amendment, original claims 1-12 and new dependent claims 13-20 will be pending in this patent application, of which claims 1-8, 11, and 12 are already allowed. By this amendment, Applicant has amended rejected dependent claims 9 and 10, and has made minor typographical corrections and small amendments to independent claims 1 and 8 to clarify their language.

New dependent claims 13-20 are added, and Applicant has also changed the title of the application to better reflect the claimed subject matter. No new matter has been added, and specific support for the new claims will be described below. Furthermore, Applicant respectfully submits that the amendments to the independent claims do not affect the Examiner's reasons for allowing those claims, and that the new claims are all dependent on the allowed claims, so they should not raise new issues or create a significant burden. Applicant respectfully requests reconsideration and allowance of this application in view of the above amendments and the following remarks.

The Rejection under 35 U.S.C. § 112

Dependent claims 9 and 10 were rejected under 35 U.S.C. § 112(b)/second paragraph because the phrase "the motion and/or orientation" in those claims lacked antecedent basis. Applicant has amended the claims to resolve this issue, and accordingly, respectfully requests that the rejection be withdrawn.

New Claims 13-20

These claims merely depend from claims 1 and 8 above, and should be allowable for at least the same reasons as the independent claims are allowed. They add further distinctions and thus are narrower in scope. Support for the same can be found at:

Claims 13, 17: see e.g., page 24, ll. 18-31;

Claims 14, 18: see e.g., page 25, ll. 7-20;

Claims 15, 19: see page 25, ll. 1-5; and

Claims 16, 20: see e.g., page 9, ll. 4-8.

CONCLUSION

As Applicant has addressed all outstanding rejections, Applicant respectfully submits that the remaining claims are in condition for allowance, and a timely Notice to that effect is earnestly solicited. No additional fees are believed to be due for the new claims (13-20) since they are within the nominal filing allowance. If any questions relating to patentability remain, the Examiner is invited to contact the undersigned.

Respectfully submitted,

By: /Andrew McAleavey/
Andrew McAleavey
Reg. No. 50,535
Tel. 510-428-9778
Fax. 510-295-2490
Customer No. 52447

Date: June 2, 2015

Electronic Patent Application Fee Transmittal				
Application Number:		14223848		
Filing Date:		24-Mar-2014		
Title of Invention:		Progressive Pictorial & Motion Based CAPTCHAs		
First Named Inventor/Applicant Name:		John Nicholas Gross		
Filer:		Andrew James McAleavey		
Attorney Docket Number:		JNG 2009-6-DIV		
Filed as Small Entity				
Filing Fees for Utility under 35 USC 111(a)				
Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
Basic Filing:				
Pages:				
Claims:				
Miscellaneous-Filing:				
Petition:				
Patent-Appeals-and-Interference:				
Post-Allowance-and-Post-Issuance:				
Extension-of-Time:				

Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
Extension - 1 month with \$0 paid	2251	1	100	100
Miscellaneous:				
Total in USD (\$)				100

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EFS ID:	22517129
Application Number:	14223848
International Application Number:	
Confirmation Number:	4926
Title of Invention:	Progressive Pictorial & Motion Based CAPTCHAs
First Named Inventor/Applicant Name:	John Nicholas Gross
Customer Number:	52447
Filer:	Andrew James McAleavey
Filer Authorized By:	
Attorney Docket Number:	JNG 2009-6-DIV
Receipt Date:	02-JUN-2015
Filing Date:	24-MAR-2014
Time Stamp:	19:20:08
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	Credit Card
Payment was successfully received in RAM	\$ 100
RAM confirmation Number	6158
Deposit Account	501244
Authorized User	GROSS, J NICHOLAS
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File Listing:					
Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1		Response.pdf	80168 5fd75bca89343567c873d665a66cc22c87e bf36b	yes	8
	Multipart Description/PDF files in .zip description				
	Document Description	Start	End		
	Amendment/Req. Reconsideration-After Non-Final Reject	1	1		
	Specification	2	2		
	Claims	3	6		
	Applicant Arguments/Remarks Made in an Amendment	7	8		
Warnings:					
Information:					
2	Fee Worksheet (SB06)	fee-info.pdf	30699 e07cf15c767dd91264e6026a49cb32c64fc6 6e38	no	2
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PATENT APPLICATION FEE DETERMINATION RECORD Substitute for Form PTO-875					Application or Docket Number 14/223,848		Filing Date 03/24/2014		☐ To be Mailed	
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ENTITY: ☐ LARGE ☒ SMALL ☐ MICRO

APPLICATION AS FILED – PART I

FOR	NUMBER FILED	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 \$ =	
INDEPENDENT CLAIMS (37 CFR 1.16(h))	minus 3 =	*		X \$ =	
☐ 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)	(Column 4)	(Column 5)	RATE (\$)	ADDITIONAL FEE (\$)
AMENDMENT	06/02/2015	CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA		
	Total (37 CFR 1.16(i))	* 20	Minus	** 20	= 0	X \$40 =	0
	Independent (37 CFR 1.16(h))	* 2	Minus	***3	= 0	X \$210 =	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)	(Column 4)	(Column 5)	RATE (\$)	ADDITIONAL FEE (\$)
AMENDMENT		CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA		
	Total (37 CFR 1.16(i))	*	Minus	**	=	X \$ =	
	Independent (37 CFR 1.16(h))	*	Minus	***	=	X \$ =	
	☐ 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.
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	Filing Date		2014-03-24
	First Named Inventor	GROSS, JOHN NICHOLAS	
	Art Unit	3714	
	Examiner Name	LANEAU, RONALD	
	Attorney Docket Number	JNG 2009-6-DIV	

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	Art Unit	3714
	Examiner Name	LANEAU, RONALD
	Attorney Docket Number	JNG 2009-6-DIV

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	Examiner Name	LANEAU, RONALD		
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	5	BAIRD, Henry, et al.; "Human interactive proofs and document image analysis," in Proc., IAPR 2002 Workshop on Document Analysis Systems, (Princeton, NJ), August 2002, 12 pages.						☐

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)	Application Number		14223848
	Filing Date		2014-03-24
	First Named Inventor	GROSS, JOHN NICHOLAS	
	Art Unit	3714	
	Examiner Name	LANEAU, RONALD	
	Attorney Docket Number	JNG 2009-6-DIV	

6	BEUTNAGEL, M., et al.; "THE AT&T NEXT-GEN TIS SYSTEM," http://www.research.att.com/projects/tts , 1999, 4 pages.	☐
7	BIGHAM, J.P., et al.; "Evaluating existing audio CAPTCHAs and an interface optimized for non-visual use," in proceedings of ACM CHI 2009 Conference on Human Factors in Computing Systems, April 2009, pp.1829-1838.	☐
8	BOHR, et al.; "Improving auditory CAPTCHA security." ISR Tech. rep., University of Maryland, College Park, MD, 2008.	☐
9	CHAN, T.; "Using a test-to-speech synthesizer to generate a reverse Turing test," Tools with Artificial Intelligence, 2003. Proceedings. 15th IEEE International Conference on, vol., no., pp. 226- 232,3-5, Nov. 2003.	☐
10	GOLLE, P.; "Machine learning attacks against the Asirra CAPTCHA," in proceedings of the 15th ACM Conference on Computer and Communications Security, Alexandria, Virginia, USA, February 28, 2008, 535-542.	☐
11	GOSSWEILER, Rich, et al.; "What's Up CAPTCHA? A CAPTCHA Based On Image Orientation," WWW 2009, April 20- 24, 2009, Madrid, Spain, 10 pages.	☐
12	GOSSWELLER, Rich, et al.; "What's Up CAPTCHA? A CAPTCHA Based On Image Orientation," WWW 2009, April 20- 24, 2009, Madrid, Spain, 10 pages.	☐
13	"Guess-a-Sketch," web.archive.org/web/.../GAS.html , Nov 24, 2002, 5 pages.	☐
14	"GWAP," http://blog.gwap.com/2008/05/hellow-world.html , May 13, 2008, 3 pages.	☐
15	International Search Report and Written Opinion for PCTIUS2009/047413, mailed October 15, 2009, 18 pages.	☐
16	KOCHANSKI, G., Lopresti, D., and Shih, C.; "A Reverse Turing Test Using Speech," Seventh International Conference on Spoken Language Processing, September 2002.	☐

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)	Application Number		14223848
	Filing Date		2014-03-24
	First Named Inventor	GROSS, JOHN NICHOLAS	
	Art Unit	3714	
	Examiner Name	LANEAU, RONALD	
	Attorney Docket Number	JNG 2009-6-DIV	

17	LOPRESTI, Daniel; "Leveraging the CAPTCHA Problem," Presented at the Second International Workshop on Human Interactive Proofs, Bethlehem, PA, May 2005, 15 pages.	☐
18	MARKKOLA, Anu, et al.; "Accessible Voice CAPTCHAs for Internet Telephony," Symposium on Accessible Privacy and Security (SOAPS) 2008, July 23, 2008, Pittsburgh, PA USA, 2 pages.	☐
19	MORI, Greg, et al.; "Recognizing Objects in Adversarial Clutter: Breaking a Visual CAPTCHA," University of California Berkeley Computer Science Department, 2003, 8 pages.	☐
20	NASS, Clifford, et al.; "Does Computer-Synthesized Speech Manifest Personality? Experimental Tests of Recognition, Similarity-Attraction, and Consistency-Attraction," Journal of Experimental Psychology: Accepted April 3, 2001, Vol. 7, No.3, 171-181.	☐
21	POPE, Clark, et al.; Abstract of "Is It Human or Computer? Defending E-Commerce with Captchas," IT Professional, vol. 7, no. 2, Mar./Apr. 2005, 1 page.	☐
22	REYNOLDS, Douglas, et al.; "Automatic Speaker Recognition Recent Progress, Current Applications, and Future Trends," Presented at the AAAS 2000 Meeting Humans, Computers and Speech Symposium, 19 February 2000, 36 pages.	☐
23	REYNOLDS, Douglas; "Automatic Speaker Recognition: Current Approaches and Future Trends," This paper is based in part on the tutorial "Speaker Verification: From Research to Reality" by DA Reynolds and L.P. Heck, ICASSP 2001, 6 pages.	☐
24	RUSS, John C.; "The Image Processing and Analysis Cookbook." Copyright 1996-2001. p. 1,37,38,53,54,241,242.	☐
25	SCHLAIKJER; "A Dual-Use Speech CAPTCHA: Aiding Visually Impaired Web Users while Providing Transcriptions of Audio Streams," Technical Report CMU-LTI-07-014, Carnegie Mellon University. November 2007.	☐
26	SCHUCKERS, Stephanie; "Spoofing and Anti-Spoofing Measures," Information Security Technical Report, Vol 7, No. 4, December 10, 2002, pp. 56-62.	☐
27	STONE, Jonathon; "A Guide To Speaker Verification," Produced by ICR Speech Solutions & Services, October 28, 2003, 11 pages.	☐

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)	Application Number		14223848
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	First Named Inventor	GROSS, JOHN NICHOLAS	
	Art Unit	3714	
	Examiner Name	LANEAU, RONALD	
	Attorney Docket Number	JNG 2009-6-DIV	

	28	THURAS, Dylan; "The Turing Test And Machine Intelligence," http://htmltimes.com/turing-test-machine-intelligence.php , Nov. 4th, 2008, 3 pages.	☐
	29	VON AHN, Luis, et al.; "Peekaboom: a game for locating objects in images," Proceedings of the SIGCHI conference on Human Factors in computing systems, April 22-27, 2006, Montreal, Quebec, Canada, 23 pages	☐
	30	VON AHN, Luis, et al.; "Labeling Images with a Computer Game," CHI 2004, April 24-29, 2004, Vienna, Austria, 8 pages.	☐
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	14223848
	Filing Date	2014-03-24
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	Art Unit	3714
	Examiner Name	LANEAU, RONALD
	Attorney Docket Number	JNG 2009-6-DIV

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	/Andrew McAleavey/	Date (YYYY-MM-DD)	2015-06-02
Name/Print	Andrew McAleavey	Registration Number	50,535

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 records.
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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.

Electronic Patent Application Fee Transmittal				
Application Number:		14223848		
Filing Date:		24-Mar-2014		
Title of Invention:		Progressive Pictorial & Motion Based CAPTCHAs		
First Named Inventor/Applicant Name:		John Nicholas Gross		
Filer:		Andrew James McAleavey		
Attorney Docket Number:		JNG 2009-6-DIV		
Filed as Small Entity				
Filing Fees for Utility under 35 USC 111(a)				
Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
Basic Filing:				
Pages:				
Claims:				
Miscellaneous-Filing:				
Petition:				
Patent-Appeals-and-Interference:				
Post-Allowance-and-Post-Issuance:				
Extension-of-Time:				

Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
Miscellaneous:				
Submission- Information Disclosure Stmt	2806	1	90	90
Total in USD (\$)				90

Electronic Acknowledgement Receipt	
EFS ID:	22517509
Application Number:	14223848
International Application Number:	
Confirmation Number:	4926
Title of Invention:	Progressive Pictorial & Motion Based CAPTCHAs
First Named Inventor/Applicant Name:	John Nicholas Gross
Customer Number:	52447
Filer:	Andrew James McAleavey
Filer Authorized By:	
Attorney Docket Number:	JNG 2009-6-DIV
Receipt Date:	02-JUN-2015
Filing Date:	24-MAR-2014
Time Stamp:	20:13:17
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	Credit Card
Payment was successfully received in RAM	\$90
RAM confirmation Number	6884
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	Information Disclosure Statement (IDS) Form (SB08)	IDS_JNG20096DIV.pdf	714188	no	18
			8c32522a07102760b5cbd915d13dffd068a6919b		
Warnings:					
Information:					
2	Non Patent Literature	Russ.pdf	1367388	no	7
			954a64bfaa66c122cc255442dd7689047422e22b		
Warnings:					
Information:					
3	Fee Worksheet (SB06)	fee-info.pdf	30614	no	2
			c12f59eaf303234943ec9e122e8776ee991f92c9		
Warnings:					
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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. <u>New Applications Under 35 U.S.C. 111</u> 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. <u>National Stage of an International Application under 35 U.S.C. 371</u> 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. <u>New International Application Filed with the USPTO as a Receiving Office</u> 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.					

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 14/223,848		Filing Date 03/24/2014		☐ To be Mailed	
ENTITY: ☐ LARGE ☒ SMALL ☐ MICRO									
APPLICATION AS FILED – PART I									
(Column 1)		(Column 2)							
FOR		NUMBER FILED		NUMBER EXTRA		RATE (\$)		FEE (\$)	
☒ BASIC FEE (37 CFR 1.16(a), (b), or (c))		N/A		N/A		N/A		140	
☒ SEARCH FEE (37 CFR 1.16(k), (i), or (m))		N/A		N/A		N/A		300	
☒ EXAMINATION FEE (37 CFR 1.16(o), (p), or (q))		N/A		N/A		N/A		360	
TOTAL CLAIMS (37 CFR 1.16(i))		12 minus 20 =		* 0		x \$40 =		0	
INDEPENDENT CLAIMS (37 CFR 1.16(h))		2 minus 3 =		* 0		x \$210 =		0	
☐ 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		800	
APPLICATION AS AMENDED – PART II									
(Column 1)		(Column 2)		(Column 3)					
AMENDMENT	06/02/2015	CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA	RATE (\$)		ADDITIONAL FEE (\$)	
	Total (37 CFR 1.16(i))	* 20	Minus	** 20	= 0	x \$40 =		0	
	Independent (37 CFR 1.16(h))	* 2	Minus	***3	= 0	x \$210 =		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 \$ =			
	Independent (37 CFR 1.16(h))	*	Minus	***	=	X \$ =			
	☐ 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. ** 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 number found in the appropriate box in column 1.									

This collection of information is required by 37 CFR 1.16. 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 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. 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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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
14/223,848	03/24/2014	John Nicholas Gross	JNG 2009-6-DIV	4926
52447	7590	02/03/2015		
PATENTBEST 1195 Park Avenue Suite 202A EMERYVILLE, CA 94608			EXAMINER LANEAU, RONALD	
			ART UNIT	PAPER NUMBER
			3714	
			NOTIFICATION DATE	DELIVERY MODE
			02/03/2015	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):

ANDREW@PATENTBEST.COM
patent@patentbest.com

Office Action Summary	Application No. 14/223,848	Applicant(s) GROSS, JOHN NICHOLAS	
	Examiner RONALD LANEAU	Art Unit 3714	AIA (First Inventor to File) 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 03/24/14.
☐ 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) 1-12 is/are pending in the application.
5a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 6) ☒ Claim(s) 1-8, 11 and 12 is/are allowed.
- 7) ☒ Claim(s) 9 and 10 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 ____.
- 3) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date ____.
- 4) ☐ Other: ____.

Art Unit: 3714

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

Claim Rejections - 35 USC § 112

2. The following is a quotation of 35 U.S.C. 112(b):
(b) CONCLUSION.—The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the inventor or a joint inventor regards as the invention.

The following is a quotation of 35 U.S.C. 112 (pre-AIA), second paragraph:
The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 9 and 10 recite the limitation "*the motion and/or orientation*" in line 2. There is insufficient antecedent basis for this limitation in the claim.

Allowable Subject Matter

4. Claims 1-8, 11 and 12 are allowed.

None of the references, either singularly or in combination, discloses or even suggests:

As per claims 1-7, a method of providing a motion and/or orientation-based Completely Automatic Public Turing Test To Tell Humans And Computers Apart (CAPTCHA) challenge on a portable computing device comprising: b. automatically processing sensory data associated with user movements and/or manipulations of the portable computing device; c. automatically determining if said user movements and/or manipulations from the user meet a required threshold for satisfying said set of manipulation instructions.

As per claims 8, 11 and 12, a method of providing a touch-based Completely Automatic Public Turing Test To Tell Humans And Computers Apart (CAPTCHA) challenge on a portable

Art Unit: 3714

computing device comprising: b. automatically processing touch sensory data associated with user movements and/or manipulations of objects within a graphical interface of the portable computing device; c. automatically determining if said user touch sensory data meets a required threshold for satisfying said set of physical touch instructions.

5. Claims 9 and 10 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112(b) or 35 U.S.C. 112 (pre-AIA), 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- See references cited on PTO form 892.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to RONALD LANEAU whose telephone number is (571)272-6784. The examiner can normally be reached on 8:30 - 7:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Lewis can be reached on (571) 272-7673. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 3714

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Ronald Laneau/
Primary Examiner
Art Unit 3714

rl

Notice of References Cited	Application/Control No. 14/223,848	Applicant(s)/Patent Under Reexamination GROSS, JOHN NICHOLAS	
	Examiner RONALD LANEAU	Art Unit 3714	Page 1 of 1

U.S. PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	Classification
*	A	US-2013/0166726	06-2013	Boldyrev et al.	709/224
*	B	US-2012/0179742	07-2012	ACHARYA et al.	709/202
*	C	US-2011/0085700	04-2011	Lee, Hans C.	382/103
	D	US-			
	E	US-			
	F	US-			
	G	US-			
	H	US-			
	I	US-			
	J	US-			
	K	US-			
	L	US-			
	M	US-			

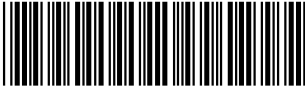
FOREIGN PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Country	Name	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. 14223848	Applicant(s)/Patent Under Reexamination GROSS, JOHN NICHOLAS
	Examiner RONALD LANEAU	Art Unit 3714

CPC- SEARCHED		
Symbol	Date	Examiner

CPC COMBINATION SETS - SEARCHED		
Symbol	Date	Examiner

US CLASSIFICATION SEARCHED			
Class	Subclass	Date	Examiner
463	9-13. 16, 20	12/17/2014	RL
726	3-5, 17, 21	12/17/2014	RL

SEARCH NOTES		
Search Notes	Date	Examiner
East Search	12/18/2014	RL

INTERFERENCE SEARCH			
US Class/ CPC Symbol	US Subclass / CPC Group	Date	Examiner

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<i>Index of Claims</i> 	Application/Control No. 14223848	Applicant(s)/Patent Under Reexamination GROSS, JOHN NICHOLAS
	Examiner RONALD LANEAU	Art Unit 3714

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

☐ Claims renumbered in the same order as presented by applicant ☐ CPA ☐ T.D. ☐ R.1.47										
CLAIM			DATE							
Final	Original	12/18/2014								
	1	=								
	2	=								
	3	=								
	4	=								
	5	=								
	6	=								
	7	=								
	8	=								
	9	✓								
	10	✓								
	11	=								
	12	=								

EAST Search History

EAST Search History (Prior Art)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	7	(computing adj device) and (sensory adj data) and (manipulation adj challenge)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2014/12/18 11:39
L2	7	(user adj (movement or manipulation)) and (manipulation adj instruction) and (elect\$3 near3 challenge)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2014/12/18 11:40
L3	1799	(motion or orientation) and (electronic adj image) and (computing adj device)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2014/12/18 11:41
L4	259	3 and (automatic\$4 near3 processing)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2014/12/18 11:43
L5	259	4 and (motion or orientation)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2014/12/18 11:44
L6	6	4 and (sensory adj data)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2014/12/18 11:44
L7	2	("2009/0325661").URPN.	USPAT	OR	OFF	2014/12/18 11:44
L8	35	(virtual adj compass) and (set near5 instruction) and ((portable or mobile) adj device)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2014/12/18 11:47
L9	6	8 and (electronic adj image)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2014/12/18 11:48
L10	35	8 and (motion or orientation)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2014/12/18 11:49
L11	6	10 and (sensory adj data)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2014/12/18 11:49
L12	61	5 and challenge	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2014/12/18 12:04
L13	60	12 and (gui or interface)	US-PGPUB; USPAT; EPO;	OR	ON	2014/12/18 12:04

EAST Search History

			JPO; DERWENT			
L14	42	(automatic\$4 near5 (sensory adj data))	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2014/12/18 12:05
L15	27	14 and threshold	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2014/12/18 12:05
L16	6	15 and (virtual adj compass)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2014/12/18 12:13
L17	11	15 and ((portable or mobile) adj device)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2014/12/18 12:14
L18	0	("2013/0166726").URPN.	USPAT	OR	OFF	2014/12/18 12:15

12/ 18/ 2014 12:15:31 PM

C:\Users\rlaneau\Documents\EAST\Workspaces\14223848.wsp



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APPLICATION NUMBER	FILING OR 371(C) DATE	FIRST NAMED APPLICANT	ATTY. DOCKET NO./TITLE
14/223,848	03/24/2014	John Nicholas Gross	JNG 2009-6-DIV

CONFIRMATION NO. 4926

PUBLICATION NOTICE



OC00000071119669

52447
PATENTBEST
1195 Park Avenue
Suite 202A
EMERYVILLE, CA 94608

Title:Progressive Pictorial & Motion Based CAPTCHAs

Publication No.US-2014-0295927-A1

Publication Date:10/02/2014

NOTICE OF PUBLICATION OF APPLICATION

The above-identified application will be electronically published as a patent application publication pursuant to 37 CFR 1.211, et seq. The patent application publication number and publication date are set forth above.

The publication may be accessed through the USPTO's publicly available Searchable Databases via the Internet at www.uspto.gov. The direct link to access the publication is currently <http://www.uspto.gov/patft/>.

The publication process established by the Office does not provide for mailing a copy of the publication to applicant. A copy of the publication may be obtained from the Office upon payment of the appropriate fee set forth in 37 CFR 1.19(a)(1). Orders for copies of patent application publications are handled by the USPTO's Office of Public Records. The Office of Public Records can be reached by telephone at (703) 308-9726 or (800) 972-6382, by facsimile at (703) 305-8759, by mail addressed to the United States Patent and Trademark Office, Office of Public Records, Alexandria, VA 22313-1450 or via the Internet.

In addition, information on the status of the application, including the mailing date of Office actions and the dates of receipt of correspondence filed in the Office, may also be accessed via the Internet through the Patent Electronic Business Center at www.uspto.gov using the public side of the Patent Application Information and Retrieval (PAIR) system. The direct link to access this status information is currently <http://pair.uspto.gov/>. Prior to publication, such status information is confidential and may only be obtained by applicant using the private side of PAIR.

Further assistance in electronically accessing the publication, or about PAIR, is available by calling the Patent Electronic Business Center at 1-866-217-9197.

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



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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
14/223,848	03/24/2014	2178	800	JNG 2009-6-DIV	12	2

CONFIRMATION NO. 4926

UPDATED FILING RECEIPT



OC000000069127088

52447
PATENTBEST
1195 Park Avenue
Suite 202A
EMERYVILLE, CA 94608

Date Mailed: 06/24/2014

Receipt is acknowledged of this non-provisional 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 APPLICANT, 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 Filing Receipt Correction. Please provide a copy of this Filing Receipt with the changes noted thereon. If you received a "Notice to File Missing Parts" for this application, please submit any corrections 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**

Inventor(s)

John Nicholas Gross, Berkeley, CA;

Applicant(s)

The John Nicholas and Kristin Gross Trust U/A/D April 13, 2010, Berkeley, CA

Assignment For Published Patent Application

The John Nicholas and Kristin Gross Trust U/A/D April 30, 2010, Berkeley, CA

Power of Attorney: The patent practitioners associated with Customer Number 52447

Domestic Priority data as claimed by applicant

This application is a DIV of 12/494,083 06/29/2009 PAT 8752141
which claims benefit of 61/076,495 06/27/2008

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.

If Required, Foreign Filing License Granted: 04/15/2014

The country code and number of your priority application, to be used for filing abroad under the Paris Convention, is **US 14/223,848**

Projected Publication Date: 10/02/2014

Non-Publication Request: No

Early Publication Request: No

**** SMALL ENTITY ****

Title

Progressive Pictorial & Motion Based CAPTCHAs

Preliminary Class

715

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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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).

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Title 35, United States Code, Section 184
Title 37, Code of Federal Regulations, 5.11 & 5.15

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PATENT APPLICATION FEE DETERMINATION RECORD Substitute for Form PTO-875						Application or Docket Number 14/223,848			
APPLICATION AS FILED - PART I									
(Column 1)		(Column 2)		SMALL ENTITY		OR OTHER THAN SMALL ENTITY			
FOR	NUMBER FILED	NUMBER EXTRA		RATE(\$)	FEE(\$)	RATE(\$)	FEE(\$)		
BASIC FEE (37 CFR 1.16(a), (b), or (c))	N/A	N/A		N/A	70	N/A			
SEARCH FEE (37 CFR 1.16(k), (l), or (m))	N/A	N/A		N/A	300	N/A			
EXAMINATION FEE (37 CFR 1.16(o), (p), or (q))	N/A	N/A		N/A	360	N/A			
TOTAL CLAIMS (37 CFR 1.16(i))	12	minus 20 =	*	x 40 =	0.00	OR			
INDEPENDENT CLAIMS (37 CFR 1.16(h))	2	minus 3 =	*	x 210 =	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	730	TOTAL			
APPLICATION AS AMENDED - PART II									
(Column 1)		(Column 2)		(Column 3)		SMALL ENTITY		OR OTHER THAN SMALL ENTITY	
AMENDMENT A		CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA	RATE(\$)	ADDITIONAL FEE(\$)	RATE(\$)	ADDITIONAL FEE(\$)
	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))							OR	
	FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))							OR	
					TOTAL ADD'L FEE		OR	TOTAL ADD'L FEE	
AMENDMENT B		CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA	RATE(\$)	ADDITIONAL FEE(\$)	RATE(\$)	ADDITIONAL FEE(\$)
	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))							OR	
	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	FIRST NAMED APPLICANT	ATTY. DOCKET NO./TITLE
14/223,848	03/24/2014	John Nicholas Gross	JNG 2009-6-DIV

CONFIRMATION NO. 4926

52447
PATENTBEST
1195 Park Avenue
Suite 202A
EMERYVILLE, CA 94608

NOTICE



Date Mailed: 06/24/2014

INFORMATIONAL NOTICE TO APPLICANT

Applicant is notified that the above-identified application contains the deficiencies noted below. No period for reply is set forth in this notice for correction of these deficiencies. However, if a deficiency relates to the inventor's oath or declaration, the applicant must file an oath or declaration in compliance with 37 CFR 1.63, or a substitute statement in compliance with 37 CFR 1.64, executed by or with respect to each actual inventor no later than the expiration of the time period set in the "Notice of Allowability" to avoid abandonment. See 37 CFR 1.53(f).

The item(s) indicated below are also required and should be submitted with any reply to this notice to avoid further processing delays.

- A properly executed inventor's oath or declaration has not been received for the following inventor(s):
John Nicholas Gross

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

IN RE PATENT APPLICATION OF:	CONFIRMATION NO. 4926
John Nicholas Gross	DOCKET: JNG 2009-6-DIV
APPLICATION NO.: 14/223,848	EXAMINER: NONE
FILED: March 24, 2014	ART UNIT: 2178
TITLE: Progressive Pictorial & Motion Based CAPTCHAs	

* * *

RESPONSE TO NOTICE TO FILE MISSING PARTS

MAIL STOP MISSING PARTS
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Madam:

In response to the Notice to File Missing Parts mailed April 17, 2014, Applicant respectfully submits fees in the amount of \$800. Since this response is being filed via EFS, a copy of the Notice is not enclosed. If any questions arise, Office officials are invited to contact the undersigned.

Respectfully submitted,

By: /Andrew McAleavey/
Andrew McAleavey
Reg. No. 50,535
Tel. 510-428-9778
Fax. 510-295-2490
Customer No. 52447

Date: June 17, 2014

Electronic Patent Application Fee Transmittal				
Application Number:		14223848		
Filing Date:		24-Mar-2014		
Title of Invention:		Progressive Pictorial & Motion Based CAPTCHAs		
First Named Inventor/Applicant Name:		John Nicholas Gross		
Filer:		Andrew James McAleavey		
Attorney Docket Number:		JNG 2009-6-DIV		
Filed as Small Entity				
Utility under 35 USC 111(a) Filing Fees				
Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
Basic Filing:				
Utility filing Fee (Electronic filing)	4011	1	70	70
Utility Search Fee	2111	1	300	300
Utility Examination Fee	2311	1	360	360
Pages:				
Claims:				
Miscellaneous-Filing:				
Late Filing Fee for Oath or Declaration	2051	1	70	70
Petition:				

Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
Patent-Appeals-and-Interference:				
Post-Allowance-and-Post-Issuance:				
Extension-of-Time:				
Miscellaneous:				
Total in USD (\$)				800

Electronic Acknowledgement Receipt	
EFS ID:	19333059
Application Number:	14223848
International Application Number:	
Confirmation Number:	4926
Title of Invention:	Progressive Pictorial & Motion Based CAPTCHAs
First Named Inventor/Applicant Name:	John Nicholas Gross
Customer Number:	52447
Filer:	Andrew James McAleavey
Filer Authorized By:	
Attorney Docket Number:	JNG 2009-6-DIV
Receipt Date:	17-JUN-2014
Filing Date:	24-MAR-2014
Time Stamp:	18:24:52
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	Credit Card
Payment was successfully received in RAM	\$ 800
RAM confirmation Number	5080
Deposit Account	
Authorized User	

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
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1	Applicant Response to Pre-Exam Formalities Notice	Response.pdf	54255 c3315ff55b24e0bd2630d667e39e0d53e5f56448	no	1
Warnings:					
Information:					
2	Fee Worksheet (SB06)	fee-info.pdf	37070 adec0462aed0202062de1a9f5d1a105c5e544cd2	no	2
Warnings:					
Information:					
Total Files Size (in bytes):			91325		
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. <u>New Applications Under 35 U.S.C. 111</u> 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. <u>National Stage of an International Application under 35 U.S.C. 371</u> 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. <u>New International Application Filed with the USPTO as a Receiving Office</u> 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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Suite 202A
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**Courtesy Reminder for
Application Serial No: 14/223,848**

Attorney Docket No: JNG 2009-6-DIV

Customer Number: 52447

Date of Electronic Notification: 04/17/2014

This is a courtesy reminder that new correspondence is available for this application. If you have not done so already, please review the correspondence. The official date of notification of the outgoing correspondence will be indicated on the form PTOL-90 accompanying the correspondence.

An email notification regarding the correspondence was sent to the following email address(es) associated with your customer number:

ANDREW@PATENTBEST.COM

patent@patentbest.com

To view your correspondence online or update your email addresses, please visit us anytime at <https://sportal.uspto.gov/secure/myportal/privatepair>. If you have any questions, please email the Electronic Business Center (EBC) at EBC@uspto.gov or call 1-866-217-9197.



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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
14/223,848	03/24/2014	2178	0.00	JNG 2009-6-DIV	12	2

CONFIRMATION NO. 4926

52447
PATENTBEST
1195 Park Avenue
Suite 202A
EMERYVILLE, CA 94608

FILING RECEIPT



OC000000067811622

Date Mailed: 04/17/2014

Receipt is acknowledged of this non-provisional 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 APPLICANT, 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 Filing Receipt Correction. Please provide a copy of this Filing Receipt with the changes noted thereon. If you received a "Notice to File Missing Parts" for this application, please submit any corrections 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**

Inventor(s)

John Nicholas Gross, Berkeley, CA;

Applicant(s)

The John Nicholas and Kristin Gross Trust U/A/D April 13, 2010, Berkeley, CA

Assignment For Published Patent Application

The John Nicholas and Kristin Gross Trust U/A/D April 30, 2010, Berkeley, CA

Power of Attorney: The patent practitioners associated with Customer Number 52447

Domestic Priority data as claimed by applicant

This application is a DIV of 12/494,083 06/29/2009
which claims benefit of 61/076,495 06/27/2008

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.

If Required, Foreign Filing License Granted: 04/15/2014

The country code and number of your priority application, to be used for filing abroad under the Paris Convention, is **US 14/223,848**

Projected Publication Date: To Be Determined - pending completion of Missing Parts

Non-Publication Request: No

Early Publication Request: No

**** SMALL ENTITY ****

Title

Progressive Pictorial & Motion Based CAPTCHAs

Preliminary Class

715

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 Assets Control, 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).

SelectUSA

The United States represents the largest, most dynamic marketplace in the world and is an unparalleled location for business investment, innovation, and commercialization of new technologies. The U.S. offers tremendous resources and advantages for those who invest and manufacture goods here. Through SelectUSA, our nation works to promote and facilitate business investment. SelectUSA provides information assistance to the international investor community; serves as an ombudsman for existing and potential investors; advocates on behalf of U.S. cities, states, and regions competing for global investment; and counsels U.S. economic development organizations on investment attraction best practices. To learn more about why the United States is the best country in the world to develop 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 14/223,848				
APPLICATION AS FILED - PART I										
(Column 1)		(Column 2)		SMALL ENTITY		OR OTHER THAN SMALL ENTITY				
FOR	NUMBER FILED	NUMBER EXTRA	RATE(\$)	FEE(\$)		RATE(\$)	FEE(\$)			
BASIC FEE (37 CFR 1.16(a), (b), or (c))	N/A	N/A	N/A	70		N/A				
SEARCH FEE (37 CFR 1.16(k), (l), or (m))	N/A	N/A	N/A	300		N/A				
EXAMINATION FEE (37 CFR 1.16(o), (p), or (q))	N/A	N/A	N/A	360		N/A				
TOTAL CLAIMS (37 CFR 1.16(i))	12	minus 20 = *	x 40	= 0.00	OR					
INDEPENDENT CLAIMS (37 CFR 1.16(h))	2	minus 3 = *	x 210	= 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						
			TOTAL	730		TOTAL				
* If the difference in column 1 is less than zero, enter "0" in column 2.										
APPLICATION AS AMENDED - PART II										
(Column 1)		(Column 2)		(Column 3)		SMALL ENTITY		OR OTHER THAN SMALL ENTITY		
AMENDMENT A		CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA	RATE(\$)	ADDITIONAL FEE(\$)		RATE(\$)	ADDITIONAL FEE(\$)
	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))							OR		
	FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))							OR		
						TOTAL ADD'L FEE		OR	TOTAL ADD'L FEE	
AMENDMENT B		CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA	RATE(\$)	ADDITIONAL FEE(\$)		RATE(\$)	ADDITIONAL FEE(\$)
	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))							OR		
	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.										



UNITED STATES PATENT AND TRADEMARK OFFICE

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

APPLICATION NUMBER	FILING OR 371(C) DATE	FIRST NAMED APPLICANT	ATTY. DOCKET NO./TITLE
14/223,848	03/24/2014	John Nicholas Gross	JNG 2009-6-DIV

CONFIRMATION NO. 4926

FORMALITIES LETTER



OC000000067811623

52447
PATENTBEST
1195 Park Avenue
Suite 202A
EMERYVILLE, CA 94608

Date Mailed: 04/17/2014

NOTICE TO FILE MISSING PARTS OF NONPROVISIONAL APPLICATION

FILED UNDER 37 CFR 1.53(b)

Filing Date Granted

Items Required To Avoid Abandonment:

An application number and filing date have been accorded to this application. The item(s) indicated below, however, are missing. Applicant is given **TWO MONTHS** from the date of this Notice within which to file all required items below to avoid abandonment. 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 statutory basic filing fee is missing.
- The application search fee must be submitted.
- The application examination fee must be submitted.
- Surcharge as set forth in 37 CFR 1.16(f) must be submitted.

The surcharge is due for any one of:

- late submission of the basic filing fee, search fee, or examination fee,
- late submission of inventor's oath or declaration,
- filing an application that does not contain at least one claim on filing, or
- submission of an application filed by reference to a previously filed application.

SUMMARY OF FEES DUE:

The fee(s) required within **TWO MONTHS** from the date of this Notice to avoid abandonment is/are itemized below. Small entity discount is in effect. If applicant is qualified for micro entity status, an acceptable Certification of Micro Entity Status must be submitted to establish micro entity status. (See 37 CFR 1.29 and forms PTO/SB/15A and 15B.)

- \$ 70 basic filing fee.
- \$ 70 surcharge.
- \$ 300 search fee.
- \$ 360 examination fee.
- \$(0.00) previous unapplied payment amount.
- \$ 800 TOTAL FEE BALANCE DUE.

Items Required To Avoid Processing Delays:

Applicant is notified that the above-identified application contains the deficiencies noted below. No period for reply is set forth in this notice for correction of these deficiencies. However, if a deficiency relates to the inventor's

page 1 of 2

oath or declaration, the applicant must file an oath or declaration in compliance with 37 CFR 1.63, or a substitute statement in compliance with 37 CFR 1.64, executed by or with respect to each actual inventor no later than the expiration of the time period set in the "Notice of Allowability" to avoid abandonment. See 37 CFR 1.53(f).

- A properly executed inventor's oath or declaration has not been received for the following inventor(s):
John Nicholas Gross

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.

Replies should be mailed to:

Mail Stop Missing Parts
Commissioner for Patents
P.O. Box 1450
Alexandria VA 22313-1450

Registered users of EFS-Web may alternatively submit their reply to this notice via EFS-Web, including a copy of this Notice and selecting the document description "Applicant response to Pre-Exam Formalities Notice".
<https://sportal.uspto.gov/authenticate/AuthenticateUserLocalEPF.html>

For more information about EFS-Web please call the USPTO Electronic Business Center at **1-866-217-9197** or visit our website at <http://www.uspto.gov/ebc>.

If you are not using EFS-Web to submit your reply, you must include a copy of this notice.

/ldvan/

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

SCORE Placeholder Sheet for IFW Content

Application Number: 14223848

Document Date: 03/24/2014

The presence of this form in the IFW record indicates that the following document type was received in electronic format on the date identified above. This content is stored in the SCORE database.

Since this was an electronic submission, there is no physical artifact folder, no artifact folder is recorded in PALM, and no paper documents or physical media exist. The TIFF images in the IFW record were created from the original documents that are stored in SCORE.

- Drawing

At the time of document entry (noted above):

- USPTO employees may access SCORE content via eDAN using the Supplemental Content tab, or via the SCORE web page.
- External customers may access SCORE content via PAIR using the Supplemental Content tab.

Form Revision Date: August 26, 2013

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

UTILITY PATENT APPLICATION TRANSMITTAL (Only for new nonprovisional applications under 37 CFR 1.53(b))	Attorney Docket No.	JNG 2009-6-DIV
	First Named Inventor	John Nicholas Gross
	Title	Progressive Pictorial & Motion Based CAPTCHAs
	Express Mail Label No.	Filed Electronically via EFS

APPLICATION ELEMENTS <i>See MPEP chapter 600 concerning utility patent application contents.</i>	Commissioner for Patents ADDRESS TO: P.O. Box 1450 Alexandria, VA 22313-1450
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1. ☐ Fee Transmittal Form (PTO/SB/17 or equivalent) 2. ☒ Applicant asserts small entity status. See 37 CFR 1.27 3. ☐ Applicant certifies micro entity status. See 37 CFR 1.29. Applicant must attach form PTO/SB/15A or B or equivalent. 4. ☒ Specification [Total Pages <u>48</u>] Both the claims and abstract must start on a new page. (See MPEP § 608.01(a) for information on the preferred arrangement) 5. ☒ Drawing(s) (35 U.S.C. 113) [Total Sheets <u>16</u>] 6. ☐ Inventor's Oath or Declaration [Total Pages _____] (including substitute statements under 37 CFR 1.64 and assignments serving as an oath or declaration under 37 CFR 1.63(e)) a. ☐ Newly executed (original or copy) b. ☐ A copy from a prior application (37 CFR 1.63(d)) 7. ☒ Application Data Sheet * See note below. See 37 CFR 1.76 (PTO/AIA/14 or equivalent) 8. CD-ROM or CD-R in duplicate, large table, or Computer Program (Appendix) ☐ Landscape Table on CD 9. Nucleotide and/or Amino Acid Sequence Submission (if applicable, items a. – c. are required) a. ☐ Computer Readable Form (CRF) b. ☐ Specification Sequence Listing on: i. ☐ CD-ROM or CD-R (2 copies); or ii. ☐ Paper c. ☐ Statements verifying identity of above copies	ACCOMPANYING APPLICATION PAPERS 10. ☐ Assignment Papers (cover sheet & document(s)) Name of Assignee _____ 11. ☒ 37 CFR 3.73(c) Statement ☒ Power of Attorney (when there is an assignee) 12. ☐ English Translation Document (if applicable) 13. ☐ Information Disclosure Statement (PTO/SB/08 or PTO-1449) ☐ Copies of citations attached 14. ☐ Preliminary Amendment 15. ☐ Return Receipt Postcard (MPEP § 503) (Should be specifically itemized) 16. ☐ Certified Copy of Priority Document(s) (if foreign priority is claimed) 17. ☐ Nonpublication Request Under 35 U.S.C. 122(b)(2)(B)(i). Applicant must attach form PTO/SB/35 or equivalent. 18. ☐ Other: _____ _____ _____ _____
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*Note: (1) Benefit claims under 37 CFR 1.78 and foreign priority claims under 1.55 must be included in an Application Data Sheet (ADS).
(2) For applications filed under 35 U.S.C. 111, the application must contain an ADS specifying the applicant if the applicant is an assignee, person to whom the inventor is under an obligation to assign, or person who otherwise shows sufficient proprietary interest in the matter. See 37 CFR 1.46(b).

19. CORRESPONDENCE ADDRESS				
☒ The address associated with Customer Number: <u>52447</u> OR ☐ Correspondence address below				
Name				
Address				
City	State	Zip Code		
Country	Telephone	Email		

Signature	/Andrew McAleavey/	Date	2014-03-24
Name (Print/Type)	Andrew McAleavey	Registration No. (Attorney/Agent)	50535

This collection of information is required by 37 CFR 1.53(b). 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. 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.

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.

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.

Application Data Sheet 37 CFR 1.76		Attorney Docket Number	JNG 2009-6-DIV
		Application Number	
Title of Invention	Progressive Pictorial & Motion Based CAPTCHAs		
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
	John		Nicholas		Gross		
Residence Information (Select One) ☒ US Residency ☐ Non US Residency ☐ Active US Military Service							
City	Berkeley		State/Province	CA	Country of Residence i	US	
Mailing Address of Inventor:							
Address 1		P.O. Box 9489					
Address 2							
City	Berkeley			State/Province	CA		
Postal Code	94709			Country i	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	52447	
Email Address	patent@patentbest.com	Add Email Remove Email

Application Information:

Title of the Invention	Progressive Pictorial & Motion Based CAPTCHAs		
Attorney Docket Number	JNG 2009-6-DIV	Small Entity Status Claimed ☒	
Application Type	Nonprovisional		
Subject Matter	Utility		
Total Number of Drawing Sheets (if any)	16	Suggested Figure for Publication (if any)	
Filing By Reference :			

Application Data Sheet 37 CFR 1.76		Attorney Docket Number	JNG 2009-6-DIV
		Application Number	
Title of Invention	Progressive Pictorial & Motion Based CAPTCHAs		

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	52447		

Domestic Benefit/National Stage Information:

This section allows for the applicant to either claim benefit under 35 U.S.C. 119(e), 120, 121, or 365(c) or indicate National Stage entry from a PCT application. Providing this 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 blank.

Prior Application Status	Pending	Remove	
Application Number	Continuity Type	Prior Application Number	Filing Date (YYYY-MM-DD)
	Division of	12494083	2009-06-29
Prior Application Status	Expired	Remove	
Application Number	Continuity Type	Prior Application Number	Filing Date (YYYY-MM-DD)
12494083	Claims benefit of provisional	61076495	2008-06-27
Additional Domestic Benefit/National Stage Data may be generated within this form by selecting the Add button.			Add

Application Data Sheet 37 CFR 1.76		Attorney Docket Number	JNG 2009-6-DIV
		Application Number	
Title of Invention	Progressive Pictorial & Motion Based CAPTCHAs		

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(d). When priority is claimed to a foreign application that is eligible for retrieval under the priority document exchange program (PDX) the information will be used by the Office to automatically attempt retrieval pursuant to 37 CFR 1.55(h)(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 ^j (if applicable)
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Statement under 37 CFR 1.55 or 1.78 for AIA (First Inventor to File) Transition Applications

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Application Data Sheet 37 CFR 1.76		Attorney Docket Number	JNG 2009-6-DIV
		Application Number	
Title of Invention	Progressive Pictorial & Motion Based CAPTCHAs		

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Mailing Address Information:			
Address 1	1215 Oxford Street		
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City	Berkeley	State/Province	CA
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Application Data Sheet 37 CFR 1.76		Attorney Docket Number	JNG 2009-6-DIV
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Application Data Sheet 37 CFR 1.76		Attorney Docket Number	JNG 2009-6-DIV
		Application Number	
Title of Invention	Progressive Pictorial & Motion Based CAPTCHAs		

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Progressive Pictorial & Motion Based CAPTCHAs

RELATED APPLICATION DATA

5 The present application is a divisional of U.S. Patent Application No. 12/494,083, filed June 29, 2009, which claims the benefit under 35 U.S.C. 119(e) of the priority date of Provisional Application Serial no. 61/076,495 filed June 27, 2008. Both of those applications are incorporated by reference in their entirety. The application is further related to the following applications, all of which are
10 incorporated by reference herein:

 Pictorial Game System & Method; serial no. 12/494,013, filed June 29, 2009 (attorney docket number 2009-4)

 Internet Based Pictorial Game System & Method; serial no. 12/494,065, filed June 29, 2009 (attorney docket number 2009-5)

FIELD OF THE INVENTION

 The present invention relates to challenge systems which include pictorial and/or motion features.

BACKGROUND

20 A popular board game introduced many years ago goes by the name of Pictionary™. In this game teams of players compete against each other by having one member of the team manually draw an object (which could be a person, place, thing, action, etc.) while the other members of the team attempt to
25 guess the identity of the object. A time factor is also accounted for in that the team must determine the object within a certain time period.

 Pictionary™ is one form of pictorial game that has enjoyed great success in the market, but it has not been rendered into a form suitable for Internet accessibility. One example of a drawing game that has been implemented in
30 electronic form is depicted in US Publication No. 2007/0018393, incorporated by reference herein. It is apparent that there is a need for other similar types of

games with different rules, objectives that can be enjoyed in electronic form, and particularly on sites available on the Internet (including social network sites) and other hand held devices (including advanced phones).

5 CAPTCHAs (Completely Automatic Public Turing Tests To Tell Humans And Computers Apart) are well-known for controlling access to computers and resources on the Internet. A recent example by Sanghavi et al. (US Publication No. 2009/0113294) incorporated by reference herein demonstrates the use of a progressive CAPTCHA. The use of a progressive technique increases the cost to spammers seeking to use human capital to circumvent text based CAPTCHAs.

10 While Sanghavi et al propose their approach for conventional (distorted) text type challenges, they fail to appreciate the potential for image based challenges. In particular, recognition of images can be incorporated as part of a picture based game to develop appropriate challenges, unlike text approaches.

SUMMARY OF THE INVENTION

An object of the present invention, therefore, is to reduce and/or overcome the aforementioned limitations of the prior art.

5 A first aspect of the invention concerns a method of conducting a pictorial based electronic game comprising the steps: presenting an electronic image authored by a human composer within a graphical interface; wherein the electronic image is presented in a visual sequence that substantially tracks a rendering of such image as performed by such human composer; associating the electronic image with one or more concepts; providing a rule set for a user to use
10 to predict an identity of the one or more concepts; processing responses from the user in compliance with the rule set to determine if the user has accurately determined an identity of the one or more concepts associated with the image; wherein the electronic image is presented to the user during at least a portion of the visual sequence substantially without explicit textual information describing
15 the one or more respective concepts.

The electronic image can be presented on a user's television system, a browser, a portable computing device such as a PDA, cell phone, etc. The images can be created automatically or by human composers with an online graphical composition tool. In some embodiments the responses from the user
20 are tabulated to compute a performance of the user, the electronic image, and an artist associated with the electronic image.

Some embodiments may also provide one or more audiovisual cues and/or clues to the user to assist in decoding the electronic image. An electronic advertisement can be provided as part of the one more audiovisual cues and/or
25 clues. The audiovisual cues and/or clues can be derived from images associated with a second set of concepts semantically related to the one or more concepts.

For some applications the electronic image is presented at different time intervals with differing levels of resolution, noise and/or pixelation.

30 In other applications the responses are provided as speech utterances and recognized by a speech recognition engine. The speech recognition engine

can be configured to listen to multiple users simultaneously to determine a winner.

A graphical tool can be provided to permit the user to create a second electronic image to be decoded by a second user. Users can also avail
5 themselves of a file uploading tool in some cases for permitting the user to upload a photographic file image to be decoded by a second user.

The invention also supports team play for some embodiments. Different teams can compete against each other, even from at different physical locations. In team play the teams can influence an identity and/or a composition of the
10 electronic image during a competition.

In some embodiments the ability to repeat the game for a plurality of second electronic images constituting a benchmark set is allowed, so that the user's responses are measured against other users to determine a performance rating relative to the benchmark set. A recommendation engine can be used to
15 recommend at least one of an artist or a second electronic image to the user based on the responses.

Still further embodiments derive the electronic image automatically based on a content of an Internet page. In some portable applications a series of different electronic images are presented in response to a change in orientation
20 of a portable device which is presenting the images.

Another aspect of the invention concerns conducting a pictorial based electronic game comprising the steps: presenting an electronic image within a graphical interface, the electronic image being derived from a scene captured by a machine and embodied in a digital and/or photographic form; wherein the
25 electronic image is presented in a visual sequence that varies so that content is gradually revealed for the image over a first time period; associating the electronic image with one or more concepts; providing a rule set for a user to use to predict an identity of the one or more concepts; processing responses from the user in compliance with the rule set to determine if the user has accurately
30 determined an identity of the one or more concepts associated with the image; wherein the electronic image is presented to the user during at least a portion of

the first time period substantially without textual information describing the one or more respective concepts.

An additional step can be performed to combine the digital and/or photographic form with other metadata for the scene in to the electronic image. A computing system can be trained and employed to automatically find digital and/or photographic form images in one or more Internet accessible image repositories. The electronic images can include scene component, scene timing information and device orientation for the scene as part of the electronic image. Advertising information for the scene can also be incorporated as part of the electronic image.

Still another aspect concerns conducting a pictorial based electronic game comprising the steps: presenting an electronic image within a graphical interface, the electronic image being derived from a scene captured by a machine and embodied in a digital and/or photographic form; wherein the electronic image is presented in a visual sequence that varies so that content is gradually revealed for the image over a first time period; associating the electronic image with one or more concepts; providing a rule set for a user to use to predict an identity of the one or more concepts; processing responses from the user in compliance with the rule set to determine if the user has accurately determined an identity of the one or more concepts associated with the image; wherein the electronic image is presented to the user during at least a portion of the first time period substantially without textual information describing the one or more respective concepts.

Another aspect of the invention concerns operating an Internet based pictorial game with a computing system comprising: providing a database of game images related to associated topics, the game images being generated by human composers; associating the electronic image with one or more concepts; providing a rule set for a user to use to give a prediction of an identity of the one or more concepts; presenting the game image with the computing system in a visual sequence that substantially tracks a rendering of such image as performed by such human composer; automatically processing responses from the user in

compliance with the rule set with the computing system to determine if the user has accurately determined an identity of the one or more concepts associated with the image; wherein the electronic image is presented to the user substantially without explicit textual information describing the one or more
5 respective concepts.

The game image is preferably presented within a web page loaded in an Internet browser, and can be part of a game website, and/or integrated as part of a personal profile page on a social networking site.

As with the other approaches users can participate as a team or in
10 competition against each other in providing the predictions. Their scores can be based on a time required to give an accurate prediction for the image. Additional visual clues semantically related to the respective concepts can be presented simultaneously to the user with the game images.

Advertisements can be matched to the game images based on a plurality
15 of bids provided in an auction by multiple advertisers. The ads can be matched to artists based on a plurality of bids provided in an auction by multiple advertisers for artists composing the game images.

Still another aspect concerns operating an Internet based pictorial game with a computing system comprising: providing a database of game images
20 related to associated topics; associating the game image with one or more concepts; providing a rule set for a user to use to give a prediction of an identity of the one or more concepts; presenting the game image with the computing system in a visual sequence that varies so that content is gradually revealed for the image over a first time period; automatically processing responses from the
25 user in compliance with the rule set with the computing system to determine if the user has accurately determined an identity of the one or more concepts associated with the image; wherein the electronic image is presented to the user during at least a portion of the first time period substantially without explicit textual information describing the one or more respective concepts. The game
30 image is preferably revealed in a spatially random sequence.

A further aspect concerns operating an Internet based pictorial game on a

social networking site with a computing system comprising: providing a database of game images related to associated topics; associating the electronic image with one or more concepts; wherein the game images are contributed by members of the social networking site; presenting the game image with the computing system within a social networking site page in a visual sequence that varies so that content is gradually revealed for the image over a first time period; wherein the electronic image is presented to the user during at least a portion of the first time period substantially without explicit textual information describing the one or more respective concepts; automatically processing responses from the user with the computing system to determine if the user has accurately determined an identity of the one or more concepts associated with the image; selectively publishing results of the user's performance on the social networking site. In some embodiments multiple members of the social networking site can play the game in a collaborative mode.

Yet another aspect is directed to a pictorial based electronic game that includes one or more software modules implemented in a computer readable medium to effectuate the above aspects.

Another aspect concerns a method of testing recognition of images for a CAPTCHA (Completely Automatic Public Turing Tests To Tell Humans And Computers Apart) system comprising: automatically electing an electronic image for a participant with a computing system, wherein the electronic image comprises imagery other than words; associating the electronic image with one or more concepts; progressively revealing information over a first time period for the electronic image within an interface for the participant using the computing system; automatically processing responses from the participant with the computing system to correlate an accuracy of guesses from the participant for the one or more concepts associated with the electronic image.

Preferred embodiments use a step of calculating a percentage of participants able to decode and accurately guess the one or more concepts within a predetermined time. The electronic image can be presented at different time intervals with differing levels of resolution, noise and/or pixelation. The

electronic images can then be randomly selected as needed within a CAPTCHA system for granting access to resources of a second computing system, including a portable electronics device.

5 A further aspect concerns providing a visual CAPTCHA (Completely Automatic Public Turing Tests To Tell Humans And Computers Apart) challenge comprising: automatically electing an electronic image for a participant with a computing system, wherein the electronic image comprises imagery other than words; associating the electronic image with one or more concepts; progressively revealing information over a first time period for the electronic image within an
10 interface for the participant using the computing system; automatically processing responses from the participant with the computing system to detect if a guess from the participant for the one or more concepts associated with the electronic image meets a required threshold.

15 In some embodiments the responses are received in audible form and processed by a speech recognition device adapted to recognize human voices. The visual CAPTCHA challenge can be combined with a physical CAPTCHA challenge requiring the user to manipulate the portable computing device in a prescribed manner. The physical CAPTCHA challenge can also interact with elements of the electronic image and/or other objects presented in the interface.

20 Another aspect is directed to providing a motion and/or orientation based CAPTCHA (Completely Automatic Public Turing Tests To Tell Humans And Computers Apart) challenge on a portable computing device comprising: automatically electing a manipulation challenge for a user with the portable computing device, wherein the manipulation challenge includes a set of physical
25 manipulation instructions for the portable computing device for the user; automatically processing sensory data associated with user movements and/or manipulations of the portable computing device; automatically determining if the user movements and/or manipulations from the user meet a required threshold for satisfying the set of manipulation instructions.

30 The set of physical manipulation instructions for the motion and/or orientation based CAPTCHA challenge can be presented in an electronic image,

and/or in audible form by a text to speech engine operating on the portable computing device. The set of physical manipulation instructions typically require the user to move the portable computing device so as to manipulate objects presented in an interface. For example, the set of physical manipulation instructions may require the user to orient a needle of a virtual compass in a specified direction, or explain (in spoken form) what direction the needle is pointing to at any moment in time. Alternatively the physical manipulation instructions can require the user to speak or blow into a microphone.

Still another aspect concerns providing a touch based CAPTCHA (Completely Automatic Public Turing Tests To Tell Humans And Computers Apart) challenge on a portable computing device comprising: automatically electing a manipulation challenge for a user with the portable computing device, wherein the manipulation challenge includes a set of physical touch instructions for the portable computing device for the user; automatically processing touch sensory data associated with user movements and/or manipulations of objects within a graphical interface of the portable computing device; automatically determining if the user touch sensory data meets a required threshold for satisfying the set of physical touch instructions.

In some embodiments the set of physical touch instructions for the motion and/or orientation based CAPTCHA challenge are presented in an electronic image, and/or in audible form by a text to speech engine operating on the portable computing device. The instructions may require the user to arrange a set of letters on the graphical interface, or orient an object in a proper direction.

A further aspect concerns the fact that the various CAPTCHA challenges are embodied in a computer readable form and implemented as one or more routines executing on a portable computing device which also has motion, orientation, touch and/or microphone sensors.

DESCRIPTION OF THE DRAWINGS

FIG. 1 is an illustration of a first embodiment of a pictorial game implemented on a stand alone computer or console;

FIG. 2 is an illustration of a second embodiment of a pictorial game implemented on an Internet website;

FIG. 3A illustrates a preferred embodiment of a pictorial game image builder;

FIG. 3B illustrates a preferred embodiment of a pictorial game image presentation engine;

FIG. 3C illustrates a preferred embodiment of a pictorial game tabulating module;

FIG. 3D illustrates a preferred embodiment of a pictorial game synthesis-suggestion module;

FIG. 3E illustrates a preferred embodiment of a pictorial game speech recognition module;

FIG. 3F illustrates a preferred embodiment of a pictorial game advertising module;

FIGs. 3G, 3H and 3J show examples of user contributed content that can be artistically styled and formatted for embodiments of the present invention;

FIG. 4 depicts a preferred embodiment of a pictorial game website;

FIG. 5 illustrates a preferred embodiment of a pictorial game team rating module;

FIG. 6 illustrates a preferred embodiment of a variant of a rule set used in a pictorial game;

FIG. 7 depicts a preferred embodiment of a game screen used in a pictorial game;

FIG. 8 depicts a process for integrating advertisements and depicts in accordance with the present invention.

DETAILED DESCRIPTION

FIG. 1 is an illustration of a first embodiment of an electronic pictorial game 100 implemented on a stand alone computer or console. In this embodiment an input device 110, which may be an electronic tablet, pad, or equivalent canvass is used by a human artist to create electronic pictures, generally referenced herein as “epicts.” Again, as noted above, the epicts may represent human authored viewable renditions of human perceivable concepts, which, in the broadest sense may be in the form of ideas, people, places, things, actions, emotions, etc. In other cases the epicts may be conventional electronic photographic images which have been formatted to be compatible with an accompanying presentation system.

A stylus 115 is preferably used to aid with such process, and is adapted for human manipulation such as in the form of a hand held pen. Other types of manipulable tools can also be used of course depending on the particular game and desired manipulation (eye, head, foot, etc.) required to provide input. The epict is displayed for viewing by the artist and other game participants on a display 120 which may be coupled to or part of a computing device with a software/hardware engine adapted for rendering the image in appropriate form. Thus the display may be part of a television, a computer monitor, etc., and the accompanying computing device may be a personal computer, a game console or other similar device.

Data is communicated to and from the input device 110 through a communications channel 125 which is preferably a wireless link. In some embodiment it may be desirable to provide feedback to the artist in the form of game rules, suggestions, etc. to the tablet for consideration. The image data can be transferred over the channel in any desired form.

Other variations of such architecture are of course possible, such as the use of multiple tablets/pads 110 (and accompanying stylus devices 115) to allow for multi-player simultaneous play. In such instances it may be useful to divide display 120 into distinct regions and partitions for displaying the various artistic renditions. For example, with 4 artists the display could be divided into 4

quadrants, which would allow participants to view 4 simultaneous renditions of an object.

In other embodiments a handheld pointer 130 may be used to draw directly on the screen display 120. The pointer may be of the type used in the Wii gaming platform which is a well-known system for this type of interactivity. For some embodiments it may be possible to use an electronic PDA or cellphone that is synced to the gaming console 120 to provide the epicts.

In its most basic form the pictorial game 100 can be configured to use a set of rules and scoring options that imitates the functionality of the Pictionary game noted earlier. For example the participants could be required to rotate the artist function, the participants could be required to move a visible token across a virtual playboard projected on display 120, the participants required to guess the concept in a particular time period, etc. In this version of the game, the participants play on teams which compete against each other to guess what concept is being drawn by a co-team member. The concepts may be supplied by the game engine 120, or may be supplied by a remote server 145. It would be relative easy for these functions to be implemented electronically and this option may be attractive to persons who like such game and want to duplicate the experience in enhanced form with an electronic platform. Nonetheless a variety of additional or modified rules and options for drawing, scoring, guessing, etc., could be elected depending on the desired game format, and such features could be adopted on a game by game basis by the game host and participants.

As an example of such modified rules, the game could be run without requiring players/participants to provide responses or guesses. In one such case artists could contribute their epicts in connection with an ongoing event that they are attending (e.g., a concert, sporting event, trade show and the like), viewing (as in a television broadcast or gaming experience seen on receiver 147) or hearing. The epicts could be directed to different topics and aspects of the vent, and could form part of a collective artistic gallery that is presented to a larger audience of the event simply for viewing and entertainment. Again, the organizers of such event could use human or machine editors to solicit and

select particular ones of the epicts that appear superior to others. For example at a sports stadium/arena a fan's live artistic contribution could be displayed on the scoreboard and the like.

5 In other embodiments the invention could be used at various events to solicit and encourage crowd and audience participation. For example, at a music concert, attendees could be given a chance to enter their sketches of the events occurring at the concert, such as the make up of the band, caricatures of the band members, etc. These sketch submissions could be uploaded and viewed by event managers to identify and select particular sketches for recognition. The
10 recognition in turn could consist of financial or non-monetary incentives for the contributor. In other instances fan contributions could be displayed and viewed dynamically (along with attribution to the fan by name, seat number, etc.) as they are created for further enjoyment. This same format could be used at sporting events and other large public gatherings where it would be desirable to report
15 graphical data in real-time for public consumption.

For some games it may be desirable for the participants to upload the game data to an offsite location for storage, review, etc., using a data feed 140. The epicts, concepts and participant information could thus be integrated into the feed 140 which can be incorporated within a social network site page or
20 broadcast to other authorized friends and third parties. For example many social networking sites now include specific areas for allowing user contributions to be added dynamically to a personalized page.

Similarly the epicts may be compiled by concept, topic, etc. by a remote server 145 for presentation to other network users. The remote server may be
25 programmed with additional game reward logic to give prizes, recognition, etc. to participants and teams in real-time to facilitate and increase game interest. If desired, the entire game could be journalled and replayed (at higher speeds as well) at a later time for viewing.

30 It will be understood by those skilled in the art that other features could be implemented into the present embodiment to add to the interest/excitement of the game. For example, an express option to include musical cues could be added,

so that the artist's rendition is accompanied by a song or other audible clue that assists the participants to guess the concept in question.

To assist with this function automated music matching logic 150 could be used to coordinate the visual rendering of the epict with the music chosen by the artist. For example if the artist took 30 seconds to sketch a picture of a bird, the music matching logic could be used to automatically select and extract an equivalent (an relevant) 30 seconds of music (perhaps with lyrics masked to avoid explicit rendering of the answer) from a song such as "Blackbird" by the Beatles to present with the epict. The music excerpts can be obtained from any one of a number of online sources, and may be further cropped as needed to accommodate a particular epict. To make their incorporation easier, they can be catalogued by different topic tags, so that they can be identified and selected easily by a human artist. By keeping the music excerpts short the issues of copyright and fair use can be minimized.

As further explained, speech recognition (as described below in more detail) could also be incorporated to recognize participant utterances and assist with scoring.

A second embodiment of a pictorial game 200 implemented on an Internet website is shown in FIG. 2. The components of this system generally include a game module 210 which has access to a database of images 205 for creating a set of epicts 215.

The images 205 can be derived from a number of sources, including community artists' contributions, pictures/graphical content contributed by members, and other image data automatically retrieved from online image repositories (e.g. such as from the Google image search engine). In some embodiments the images could be linked from member's other social networking pages (e.g. Facebook, Myspace, etc.), online photograph accounts (e.g., such as Flickr, Picassa). Details of such compilation are described below in connection with FIG. 3A.

Returning to FIG. 2, the game module 210 includes a number of components, including an image library 220, a tabulating module 230, a

presentation engine 240, a synthesis/suggestion engine 260, and a speech recognition module 270. An advertising module 280 can also be incorporated if needed. Each of these routines is preferably implemented as one or more software routines adapted for executing on an Internet accessible server, and capable of interacting with input from client browsers, back end databases, website pages and other similar processing/data resources.

The aforementioned routines are specifically responsible for supporting an Internet website page 250, which includes a number of features and functions for interacting with users of an online gaming site. For example the gaming page 250 could include a set of challenge words/epicts 290; a set of ratable epicts 294, and a community voting section 296. Each of these is discussed briefly here and in more detail below in connection with FIG. 4.

In FIG. 2, the challenge words/epicts 290 represent a set of words - to be drawn by contributing artists and a set of epicts - drawings to be guessed at by other participants. As seen below, selecting this feature allows the member to either invoke a drawing canvass/tool (to create an epict for a specific word) or invoke an image presentation screen (to guess what word is appropriate for an epict concept). Both of these functions are described in more detail below. The ratable epicts 294 feature allows members to examine specific epict-concept pairings, and rate them on their artistic/creative merit. Thus, for example, this section of the site may be used to view specific artistic renditions of particular concepts. Members may be encouraged or requested to contribute epicts on particular themes, subjects, objects, etc. The ratings are then captured and compiled for community perusal and other purposes described herein. A number of different data collection schemes exist for this purpose and could be used for such purpose, including conventional polling software.

Furthermore the gaming page may include options and features for presenting the various tabulations accumulated by the site for user entertainment. As an example, particular epicts, artists, concepts could be recognized, along with top N lists and the like.

It will be understood that all of the above applications (challenge

words/epicts 290, ratable epicts 294, community voting 296) and others could also be implemented by members on an individual basis on their respective web pages. For example the feature could be implemented as a separate application for inclusion within pages of a social networking site, in the same way that

5 Facebook users can incorporate other games or features on their profiles or data feeds. This would allow the concepts of the present invention to be perceived and disseminated to a wider audience.

As seen in FIG. 2, the epicts 215 are preferably stored according to concept, artist, etc. to create a master community database of accessible image

10 content. Each epict is preferably tagged with an artist name (if available), one or more concept (word) tags, and other data described below.

The individual modules responsible for carrying out the main functions of the invention are now described in more detail in connection with FIGs. 3A – 3F. A preferred embodiment of an image library builder module 320 shown in FIG.

15 3A includes a number of components for constructing a database of epicts. As seen there candidate images 305 for epicts can be received either through manual contributions or automatic selection from a variety of sources, including Internet collections, private collections, artist solicitations, artist submissions, etc. Candidate concepts 306 can be similarly received manually (through

20 member/community explicit contributions) or through automatic collection/generation from online resources such as dictionary and encyclopedia references. In the latter case, local/topical themes (regional events/happenings) or contemporary themes (holidays, seasonal events) may be employed to augment a list of concepts for artists to consider. Other sources of such data will

25 be apparent to those skilled in the art.

A library/content builder routine 321 retrieves and processes these image and concept/word contributions. The native image data 322 is examined to see if it is compatible with a presentation engine (described below) format, and, if not, it undergoes further formatting treatment by a routine 323 to convert it into

30 acceptable form. A product currently offered by Studiomee titled “Pocket Artist” provides this type of functionality, and other similar products could be used. The

Pocket Artist product and Pocket Sketch products are available from the iTunes app store. A similar feature is offered by Sketchmyphoto also available from their website.

For example in some embodiments of the invention an epict may consist not of artistic drawings, but solely of an actual photographic image of an object, such as a bird in a tree. The image file may be filtered and reduced (in terms of visual features) to render a simplified version of the image that can be broken down into discrete components. For example all the background elements of the image could be stripped out to show only the bird itself. Then the image could be divided – logically or physically – into distinct regions that are further reduced in complexity, so that, for example, only basic features and outline of the shape of the bird remain. These basic features thus make up and are then used to synthesize the image in later renditions of the epict. Various forms of conventional picture processing software are capable of this type of operation and could be used for this purpose. For example the Adobe Photoshop Elements software includes several image “filtering” features (for example the “poster edges” and “fresco” look found under the artistic category, and several aspects of the sketch category (photocopy for example)) that provide this type of capability. The advantage of such format is that it can take up less space and is somewhat more consistent in terms of giving the game an artistic look. An example of an original JPEG photo and an artistically formatted counterpart is shown in FIG. 3G. Even in the black and white reduced version the image is still recognizable.

Nonetheless it is possible to use simple JPEG (or similarly compressed data formats) for visual images if desired. Again the precise format of the epicts will be a function of the specific design goals and is expected to vary from application to application.

The images are also processed by an image supplementation module 325 which is used generally to locate other associated and relevant content for the candidate image as part of the pictorial game. For example metadata routine 326 is adapted to identify/extract appropriate content tags. The content tags represent correct responses or answers that may be associated with the epict in

question. For example a picture of a cat may be tagged with the descriptors “cat,” “pet” “purr” and so on. In some cases such data may be explicitly provided, in others it may be determined by reference to various software tools available on the market for identifying the nature of objects shown in an image.

5 A semantic supplementer routine 327 examines the tags/descriptors and other concepts and determines other semantically related concepts and words. Thus for example, in the above example, the “pussycat” and “feline” may be determined (with reference to a reference semantic tool such as WORDNET) to be semantically related to “cat.” Based on such association additional text tags
10 could be appended by a routine 322’ along with other native or processed supplemental image data associated with the content of such additional text tags. Thus, for example, if image data already exists for such semantic relatives, it can be associated with the candidate epict in question for use in the game.

15 The completed epict is then stored in a primary image database 324, along with the other associated metadata/parameters noted above. A secondary image database 324’ contains related images that can be accessed/related as desired to the entries in the main database. A database interface 328 is used to query and access epict content as needed by other routines as described below. A preferred embodiment of an epict record 329 is also shown in FIG. 3A. Each
20 epict is preferably coded with the following parameters:

- a unique image ID (a numerical designation of any appropriate length);
- an image name – (a listing of the appropriate content tags, descriptors, etc.);
- 25 • image components (some images may be stored in a format where the artist’s rendering of the image is journaled into distinct components; in other cases the contributions can be automatically rendered into components by formatting routine 323);
- image component timing (in instances where multiple components
30 exist, timing information can be provided to indicate what component should be drawn first, second, etc., and at what speed);

- related image components (as noted above, a pointer to other secondary images in database 324' that can be associated with the epict);
- Origin ID (a reference to an artist, data source or the like from which the epict was derived)

The preferred approach uses a scheme in which the electronic image is presented in a visual sequence that substantially tracks a predicted rendering of such used by a human composer. In other instances where the content is not based on a human artist, the image can be presented visually as the system predicts a human artist would render it, or in a manner that is logically related to the subject matter of the image.

Those skilled in the art will appreciate that other parameters can be included as well depending on the application and desired functionality. For example some epicts could be tagged with automatic metadata (geocoding, time, etc.) as desired, along with additional pointers to appropriate musical relatives (as noted above).

A preferred embodiment of the process used in a pictorial game image presentation engine 340 is depicted in FIG. 3B. As alluded to earlier, the present invention can be implemented in various forms. For example, in an automated mode, the epicts can be drawn from database 324 and presented within a portion of an interface for a webpage to be reviewed and evaluated by individual members. The members preferably have the ability to select (and/or subscribe to) the epicts by category or topic. The members could then participate in a solo-type interaction with the game through these individual epicts. Individual members may elect for the epicts to be presented on their respective profile pages as a customizable widget in accordance with one or more programmed themes of their selection. For example a particular user may direct the epict engine to randomly select topics based on the news of the day, so as to cause the system to dynamically present epicts directed to such concepts on his/her site as such content develops over time.

In other applications nonetheless it may be desirable for members to

participate in epict presentations/guessing in a team based mode. In such instances members may elect to join and sign up as a team in accordance with a set of rules as shown at 341. Invitations and sign-ups can be implemented with any number of known tools. The rules may be based on the particular game
5 chosen so that for example teams may play directly against other teams, or in some cases, may simply compete against a reference set of epicts. Other formats are of course possible. The rules may further specify scoring and other game options shown below as well.

The game is then initiated at step 342 for the participants in question. The
10 participants may enter the game directly by reference to a game ID, an authorization token or similar mechanism known in the art. In one embodiment the teams are expected to review/create a number of separate epicts on a rotating basis. That is, a first team would create a first epict for a second team to guess within a certain time period, and vice versa. The game can consist of a
15 plurality of rounds (again selectable by the participants) in which different epicts are provided to the respective teams. The game final scoring can be based on any desired mechanism, such as by determining the most correct guesses made for a set of N epicts. Other rules and variations can be used as well.

In a preferred embodiment the game members can view the epicts on
20 their respective client devices (which may be a PC, a cellphone, a PDA, a game console, etc.) in accordance with image data/game formatting requirements at step 343. As noted earlier the participant may also be shown additional supplemental images derived from a main epict to assist in guessing the concept in question. For some embodiments of the games the teams can be presented
25 epicts that come from a common library database 324, while in others the epicts are created during game time by the participants themselves. Again other modes are contemplated by the present teachings and the participants can be given latitude to select a particular rule set.

In those cases where game participants are required to create their own
30 epicts on the fly, a variety of different software tools can be used to assist them as needed to comply with a game selected concept that they are asked to

compose. These types of tools are again well-known in the art; one example is a software application known as Graffiti that is offered on the Facebook site, and which presents a graphical interface for creating drawings for community review.

See e.g. (h-t-t-p://)apps(dot)facebook(dot)com/graffitiwall/

5 and h-t-t-p://apps(dot)facebook(dot)com/graffiti/ An adaptation of this product also allows replay/ journaling features and this function could be incorporated as well with the present invention. Thus this product (or something equivalent) could be used both for creating and storing epicts for later use (as seen in FIG. 3A) or for permitting participants to create content as required for a particular
10 game. In the case of using “canned” epicts the individual replay components and timing could be stored as part of epict record 329 as noted above. For example there may be variable parameters on how quickly the epict is drawn. That is the ratio of how much drawing time is involved relative to a maximum time allowed for recognition of the image can be adjusted based on a desired game difficulty. Another example of a drawing tool that may be appropriate for the present
15 invention is described in US Publication No. 2007/0016689 incorporated by reference herein.

On certain platforms, such as the iPhone, additional sensors could be exploited to render the image in different modes/styles. For example the iPhone
20 contains motion sensors which can be used to determine the attitude of the device. The epicts could be encoded to have motion based components that are only expressed as the device is moved. For example, a picture of a tree could be coded so that it moves in response to the phone being moved. This could help denote the concept of “wind,” which is otherwise difficult to conceptualize in a static drawing. A picture of a hockey puck could be shown in different positions
25 as the device is moved, to denote the concept of sliding, and so on. A series of different images, representing scenes active at a different orientation/rotation angle of the device, could be used to denote the pouring of water, such as from one container to another. The use of such variable position technique would be most advantageous in connection with concepts involving verbs, actions, etc.
30 The possibilities are endless in this respect, and other examples will be apparent

to those skilled in the art.

The artist participants may similarly be given clues/cues and other forms of explicit assistance to help them create the pictorial images. The suggestions may be as simple as providing additional semantic word cues that are perhaps easier to depict visually. Alternatively they may be as complex as providing specific objects as templates to work from. For example for a dog the system may provide a basic body of an animal with four appendages, allowing the user to construct the rest of the image on his/her own. This technique can help solve the case of "drawing"/artist block for people who don't know what to use as a starting point.

As alluded to above, some embodiments may benefit from the inclusion of musical clues that are associated with the epict, and this feature can be further used during the presentation to assist in decoding the images.

At step 344 the responses are logged from the game participants (in the form of guesses, epicts, etc.) It will be apparent that in some cases the raw ratings data feed to be tabulated for the game can originate from a standalone architecture (see data feed 140) as described in FIG. 1 above. Moreover it should be apparent that the participants do not have to be physically in the same location to participate as a team.

Again in FIG. 3A, the participant winners and associated prizes are determined at 345 by a decision software module using any desired set of rules, i.e., such as by guessing the exact word (topic/concept) or a semantic variant as noted below. At 346 the game status/score for each participant team is adjusted as well in accordance with the rules elected for the game. The performance of the participants/teams/epicts/artists is then logged and tabulated at 347. This data can then be published as an update or feed if desired to search engines, profiles and other social networking sites.

The contributors of the content (artists, image sources, etc.) are then recognized at step 348 based on the use of the epict and/or a rating provided therefore. In embodiments of the game where some form of accounting is given to such entities a database can be maintained of credits or funds for each

contributor.

As another option the presentation engine can use a collaborative filtering or corroborative filtering routine to identify other epicts or artists that would be of interest to the game participants based on their rating or adoption of an epict/artist. In other words, the system can correlate epicts based on artist, content tag, score, etc., so that participants can be shown other examples of epicts likely to be of interest based on their scoring for one or more game epicts. Similarly the participants can be given information on other artists likely to be of interest based on scores given to a particular contributor by other participants. This information could be compiled on a topic by topic basis as well for further refinement. Recommendation routines are well-known in the art and can be modified to accommodate any and all of the data types referenced above for the epict entries 329.

Again all of the feedback data above, including scoring can be used in the architecture of FIG. 1 above as well.

The right hand side of FIG. 3B shows other game entry points for the presentation engine 340 captured from a game site (or participant) webpage. For example image challenge selection logic 350 is responsible for selecting a particular epict to be used within a particular game or widget. To make this determination it can examine collective community ratings for one or more epicts, consider contemporary/local topics, etc. to select one from database 324. In other embodiments the epicts could be rotated or randomized on a topic basis, an artist/source basis, etc. In still other applications the challenge selection logic 350 can make use of geospatial information to tailor the content of the challenges to a particular location where the user happens to be (in the case of a portable application). For example, in a baseball stadium the challenges could be geared to guessing the identity of players, and so on.

In some applications a CAPTCHA challenge system (not shown) could introduce visual content to be reviewed by humans to determine what appropriate tags/concepts are presented for the image in question. This information can then be used to augment a library of challenge test images. For

example the challenge system could determine that an (intentionally visually distorted) image A is nonetheless identified as either X or Y by 90% of the population, thus making it suitable for inclusion in a CAPTCHA system. The image could be re-presented at various times to different participants/Internet viewers – and with different levels of degradation – until it is no longer recognized by a certain percentage of the population. This process could be repeated iteratively – with progressively degraded versions of the image - as needed to meet the CAPTCHA system's requirements. The recognition times could also be measured for each iteration. In this manner the present invention can act as a form of testing ground for these types of challenge systems.

An optimized set of image challenges could be presented on an iPhone like device as part of a CAPTCHA to gain access to accounts, data, computing resources, etc. The user would be asked to provide the identity of the image either through a keyboard, or, if desired, audibly using speech recognition. The latter affords an additional layer of protection against would-be fraudulent accesses.

In still another embodiment, a CAPTCHA challenge for an iPhone type portable device (capable of motion/orientations sensing of the device) can be based on providing hints or clues to a user on how to move or orient such device. That is, the CAPTCHA could provide either text on a display, or audible instructions to the user on how to manipulate the portable device, such as rotating it to the right, to the left, in a complete circle, picking it up and putting it down N times, shaking it in different directions, etc., etc. as part of a CAPTCHA challenge. For example the current version of the iPhone has a built-in compass; the user could be asked to orient the needle to point to a particular location (N, NE, E, SE, S, SW, W, NW and so on.) In other instances the user may be asked to move the device so as to cause some action in a scene, such as to make water pour from a cup, and so on. Thus the manipulation of objects within the screen can be done as needed in a challenge based on sensing the movement of the device.

In other cases the CAPTCHA can include a visible image indicating the

movement to be imparted to the device, such as showing a person rotating it 90 degrees, picking it up and down, moving it in a figure 8 pattern, etc. Again the image could be progressively revealed or degraded if desired. Skilled artisans will appreciate that there are many options for the physical manipulations and the invention is not so limited.

The touchscreen on an iPhone like device could also be integrated into the challenge so that the user is required to physically touch or manipulate icons or other objects to achieve some result. For example the user could be asked to arrange a set of letters in a sequence to spell a particular word in a particular location on the screen. Alternatively the user could be asked to orient an object into its correct position by moving it with their fingers such as described generally in the article "What's Up CAPTCHA? A CAPTCHA Based On Image Orientation" by Gossweiler et al. (WWW 2009, April 20–24, 2009, Madrid, Spain) incorporated by reference herein – or by moving the device. Those skilled in the art will appreciate that other physical manipulations could be employed, including blowing into the phone's microphone (as is done in some games), etc. The challenges could be used, as noted, for accessing computing resources, accounts, etc., and even for applications such as unlocking/accessing the portable device (i.e., like a secret handshake).

Returning to FIG. 3H, an example of the types of degraded images is shown therein. The same image as FIG. 3G is shown with different degrees of pixelation, again using the basic operational tool available with Adobe Photoshop Elements. At one level of extreme pixelation (created using a variable colorhalftone filter feature) the image is not recognizable; but at lower levels the image can easily be distinguished as a bunkbed as in the original. Similar effects can be achieved using filters such as crystallize, mezzotint, mosaic (and several image noise and threshold options) all of which can be experimented with using routine skill to devise samples which are recognizable by humans but (preferably) not machines. For example FIG. 3J shows an original JPEG image that has been subjected to various levels of noise filtering, either through removing noise (at different pixel levels) or addition (at differing percentages). It

can be seen that at some thresholds a human would have a difficult time perceiving the object in the image, but there are clearly levels at which the image is decipherable. The images therefore could be subjected to different levels of pixelation/signal processing treatment on the fly, or they could be stored as successive original files in the different degraded forms for ease of computation/presentation.

At step 351 the selected epict is presented on the game website (or member widget) in accordance with a set of game rules applicable to such site. User ratings and responses are collected in a similar fashion at step 344 as noted before for the team embodiment.

In this manner the presentation engine 340 can accommodate and incorporate content contributed by participants across a wide variety of input platforms and game environments. All of the aforementioned steps in FIG. 3B can be implemented using one or more software routines using ordinary skill in the art based on the present teachings.

FIG. 3C illustrates a preferred embodiment of a pictorial game tabulating module 330. This module is generally responsible for compiling data and scoring for the epicts, participants, teams, etc., publishing results and accounting for results of epict games.

As seen in FIG. 3C, a routine assigns each pictorial game an ID 331 to identify it uniquely for tracking purposes. For each game, a set of epict IDs 333 and participant IDs 334 are maintained. The epict scores and participant scores are further stored by a routine in respective databases 332 and 332'. A routine 335 also calculates epict and participant scores. The scoring can be based on any number of criteria, such as in the case of an epict, the fact that it was recognized, the amount of time required, what rating was given to it, and the mode of presentation used (static or dynamic replay). The participants can be scored in a similar fashion, such whether they successfully recognized an epict (by identifying one or more correct concepts), the amount of time required by the participant to make the guess, what rating was given by the participant and the mode of presentation used (static or dynamic replay). These are but examples of

course, and other types of data could be collected as needed.

A separate routine 336 also calculates author/source scores to be stored in an artist database 332". This scoring can be based on the same parameters described above, so that, for example, artists are rewarded based on positive ratings given by participants.

The results from the pictorial games (whether they be home based, or based on team games, or derived from Internet sites, widgets, etc.) are published as desired by a routine 337. The results may include other aggregate calculations, including image difficulty rankings, image ratings, group image ratings, author ratings, participant ratings, team scores, game scores and similar data. Again the results can be made available to any of the platforms from which the game originates, including an online gaming site or social network profile, home based console system, etc.

The format of the data records maintained in the databases is shown generally in FIG. 3C as well. For example for an image database 332, an epict record 338 may include the following fields:

- Image ID (as noted above)
- Presentation mode (whether it was displayed statically or using a slow motion replay)
- % identified within time (number of participants who correctly guessed the concept of the epict divided by total viewers)
- Mean recognition time (RT) (the average and/or mean times for recognizing the epict)
- Standard deviation RT (basic statistical data based on recognition times)
- Ratings Score (average score across all participants)
- Difficulty Rating (numerical rating given by participants to indicate how hard it was to decipher the epict)
- Demographic data (information about the participants)

Note that the above is an example of an aggregate record. In addition some of the above fields (where applicable) may be compiled on an individual basis, with each game/rating of the epict given a unique record. Other fields could be

maintained in such case within database 332 or an associated database, for example the actual time may be recorded for each epict evaluation. The types of data collected could include other parameters as well.

In addition for the participants, an aggregate record 338' stored in database 332' can include:

- Participant ID (a numerical designation of any appropriate length);
- Images Perceived (which epicts were evaluated)
- Images Recognized (which ones were successfully identified)
- Mean Recognition Time (basic mathematical computation of times required by participant to review epicts)
- SD (RT) (as above)
- Ratings Score (as above, on an epict basis)
- Favorite Authors (list of artists by ID)
- Image IDs authored (list of epicts contributed identified by epict ID)

As above, note the data/fields are for an aggregate record. Some of the above fields (where applicable) may be compiled on an individual basis, with each epict rated given a unique record by score, actual review time, etc.. and are maintained within database 332' or an associated database. The types of data collected could include other parameters as well.

Finally, for the individual contributors/artists, the following type of aggregate record 338'' could be maintained within database 332'':

- Author ID (as above)
- Image IDs (as above, indicating which epicts created by this artist)
- Average Images Recognition Score (compiled across all epicts)
- Mean Recognition Time (across all epicts)
- SD (RT) (across all epicts)
- Author Score (an average rating provided by participants)
- Working on image challenge (indicating what contest they are working on)

As above, note the data/fields are for an aggregate record. Some of the above fields (where applicable) may be compiled on an individual artist basis, with each artist having a unique record by epict rated, so that an actual epict

score, review time, artist score etc. are maintained within database 332" or an associated database. The types of data collected could include other parameters as well.

While not expressly shown, it should be noted that team scores/data can be maintained as well in essentially the same fashion as for individual participant scores noted above. The data for such teams can be published as desired as well to appropriate authorized entities.

Again it should be noted that these data fields may be varied from application to application. It may be desirable to compile averages rather than means in some cases, and so on. The particular parameters will vary depending on the desired functionality. All of the above data can be published in appropriate form by routine 337 in any number of different locations, formats, etc., for participant enjoyment.

FIG. 3D illustrates a preferred embodiment of a pictorial game synthesis-suggestion module 360. This feature of the invention is responsible for assisting game participant artists to compose epicts, and to facilitate presentation of so-called preformed/canned epicts to participants.

As seen in this figure, based on a game ID 331 a determination is made whether the game is to be run in an automatic or manual mode. In the former case image/epict IDs 332 are obtained automatically from a database 324, while in the latter case a manual mode 361 requires a game participant to create the epicts in accordance with the details noted above (see FIG. 3B).

In either event the game participants have the option at step 362 to elect a supplemental presentation. This feature, as noted above in connection with FIG. 3A, allows for additional secondary images and other cues(from database 332') to be retrieved at 364 and presented as part of the reference epict at step 365. In a manual mode this information can be hidden from the participants and shown only to the artist to assist the latter in formulating appropriate images. If the supplemental option is not elected the image data is presented at 363 in accordance with any component/timing information associated with the epict. It should be noted that the automatic mode noted here would be the default

option for any epict games/presentations made in connection with a website/web profile implementation since artists are typically associated with team play.

In the event a manual mode is used at 361 for the game the artist can nonetheless invoke a suggestion option for the concept at 366. If the user
5 selects such feature the game play routes through the same steps above, except that in addition to the supplemental option features the designated artist is given specific suggestions on images that could be drawn to communicate the concept in question. If the option is not chosen the image is simply presented in a normal picture mode at 367.

10 All of the aforementioned steps in FIG. 3D can be implemented using one or more software routines using ordinary skill in the art based on the present teachings.

Next, FIG. 3E illustrates a preferred embodiment of a pictorial game
15 speech recognition module that can be used in some embodiments of the invention. While this module is depicted in the context of a pictorial game it will be apparent to skilled artisans that it can be used in connection with any number of online games.

As noted above in FIG. 3B, participants guessing on the concept embodied in the epict typically provide input on such using a keyboard or mouse.
20 Another option however is the use of speech data from the participants. This feature has the advantage of most duplicating the prior art game experiences and frees the participants from the task of being distracted while analyzing the image data. Other benefits are apparent as well, including the fact that the participant voice prints collected by the module can be used for authentication
25 and access verification as well.

The recognition module 370 executed two basic procedures: a set up mode 375 and a game mode 380. In the first mode, a routine solicits participant voice inputs at step 376. This can be done in any conventional fashion, including by collecting test words/phrases, examining for prosody, and accounting for
30 background noise attendant at the participant's site. In situations where more than one participant is present at the client device for presenting guesses a

“crowd” mode can be employed. Furthermore depending on the processing resources available to the participant they may elect to have the bulk of the speech recognition performed by a remote server associated with the pictorial game system. Other options will be apparent to those skilled in the art.

5 At step 377 a set of voice prints/templates are thus developed for each of the individual team members – in the case of a solo game of course, only the user invoking the game need provide a template. If a number of players are present at a particular location, it may be desirable to provide some form of amplitude compensation/normalization to account for different participant speaking volumes.

10 An optional step 378 can be used to confirm that the system is accurately discriminating between individual participants. Each participant would be permitted to speak a test phrase, for example, and the system would indicate which person it believes gave the utterance. In the event the system needs further training the procedure could be repeated.

15 During a game mode 380, the speech recognition module receives metadata for one or more epicts at step 381. This metadata includes a number of content tags describing the object of the epict, and may include a number of different semantically related words.

20 Based on these “answer” responses an appropriate grammar and/or customized acoustic model can be loaded for the speech recognizer at step 382. At this point therefore the speech recognizer need not be capable of recognizing substantial numbers of words. In fact it need only focus on a handful of words, and thus it can be substantially reduced in computationally complexity because it can ignore all other inputs that do not match one of the appropriate answers.

25 During step 383 the SR module listens for answers input by the various game participants. In the case of team members distributed across multiple locations the data input to the SR is thus received from multiple sources. In such instances it may be desirable to allocate a dedicated SR resource to each channel to improve performance. The SR module then recognizes and time-stamps each accurate recognition at step 384 to give appropriate attribution to the first

30

participant accurately guessing the epict concept.

Nonetheless even in “crowd” scenarios where the participants are at a single location, recent advances have made it possible to make reasonable resolutions of individual speakers who are speaking simultaneously. See e.g. [h-t-t-p://technology\(dot\)newscientist\(dot\)com/article/dn14105-robot-asimo-can-understand-three-voices-at-once\(dot\)html](http://technology(dot)newscientist(dot)com/article/dn14105-robot-asimo-can-understand-three-voices-at-once(dot)html) incorporated by reference herein. By using a similarly configured console or game platform with appropriately located microphones a SR module could distinguish between multiple human speakers articulating their responses at the same time. Other known tracking techniques for identifying the correct speaker can also be employed, such as by using video and other input.

Upon receiving a correct response the routine would identify a winner at step 385. This feature allows the participants to express their answers rapidly and in free form without the need for slower, more cumbersome data entries. It is expected that this form of input would be far more preferable in embodiments of the invention where individual players desired to play the game over a portable device, such as an Iphone or similar device that includes speech capability built in. In such instances the grammars/dictionaries can be downloaded directly to the device (since they need only pertain to the universe of words associated with the concepts) to allow untethered (non-network) play in situations where the recognizer functions can also reside on the portable device.

FIG. 3F illustrates a preferred embodiment of a process employed by a pictorial game advertising module 390. This process basically can be an adaptation of a conventional keyword auction based algorithm such as the type used by such entities as Google, Yahoo!, Microsoft, etc. In this instance, therefore advertisers are permitted to bid on a keyword or topic basis at step 391. In the present invention the keywords/topics are preferably based on the epicts and related metadata (concepts/words and semantic relatives) stored in databases 324, 324' (FIG. 3A). Thus the advertising stock 392 is preferably served on an epict by epict basis at step 393. In this fashion a content based matching system can be implemented between advertising stock and the content

of the epicts.

Since it may be undesirable to serve ads which have content that may communicate (and thus spoil) the epict recognition process by players (since it may be related to the topics/concepts of the epict), it is possible to switch off the serving of ads as noted at step 394 until the epict has been recognized or the recognition time has passed. This would avoid the problem of players being given hints as to the identity of the epict. Other techniques could be used. At step 395 the ad is served based on the advertiser's stock 392. It should be noted that in some cases it may nonetheless be desirable to incorporate advertising while the epict is being drawn as a mechanism for assisting the recognition process. In this embodiment, the ad is in fact assisting the player to solve an aspect of the game, a feature unlike other advertising modules used in the art.

This concept could be further enhanced by integrating other user contributed content directly into the ads. For example one mode of the game, as noted above, involves a suggestion component intended to assist players determine epict concepts. An ad which directly incorporates an epict determined to be related to (or suggestive of) the epict in question could be used to present the suggestion explicitly on the participant's screen while they are playing the game.

This collaboration between advertisers and artists can be extended at step 396 so that particular artists/epicts can be essentially "sponsored." For example, as seen in FIG. 2 (epicts 294) and FIG. 4 (epicts 440) the identity/stock of epicts chosen for presentation within the web pages can be determined by advertisers who match their advertising stock to one or more epicts that they want to be associated with. In this respect, therefore, the epicts effectively act as web assets (akin to a web page in an Adsense campaign) that advertisers can bid to be associated with. By allowing advertisers to bid on specific assets (instead of queries, or web page content) the invention provides another angle for monetization of such assets and opportunities for advertisers.

The advertisers could in some cases be allowed to introduce their own

proprietary/customized epict content as well (to the image library) to enhance the appearance of the game and increase their exposure. They may also contribute their own list of concepts, topics, etc. to be used as part of the game. Combined with the dynamic serving of ads related to an epict the invention allows for advertising to be used as an integral and dynamic component of an interactive game.

FIG. 4 depicts a preferred embodiment of a pictorial game website 400 that embodies aspects of the present invention. Specifically, this figure shows an example of a main web page that would be seen by Internet users accessing a game site. It should be noted that many conventional aspects of such types of pages have been omitted to make the description of the invention clearer. In particular, the game site offers users a chance to set up and initiate a pictorial game with all the features and functions described above in connection with FIGs. 2 and 3A to 3E. To wit, different portions of such page as presented within a client GUI interface include selectable URLs which invoke routines to permit the user to:

- Start a team game (option 410) – allows for a team to start a game against another team using the procedures noted in FIGs. 3A – 3E;
- Start a solitaire challenge (option 411) allows for an individual to start a game using the procedures noted in FIGs. 3A – 3E;
- Submit a challenge word (option 412) – used for allowing members to offer concepts/words to be expressed pictorially by other members;
- Watch a game (option 415) – allows a member to act as a form of voyeur and observe a team game by topic, locale, team name, etc.;
- Upload an epict (option 420) – allows a user to submit their own pictorial content and descriptor tags for the entertainment of the community;
- View top N lists for the community/site (option 425) – allows users to see the highest rated epicts, the most difficult epicts, team ratings, artist ratings, participant ratings, game scores, etc.; the

difficulty of epicts can be determined by computing a total number of times the epict has been presented versus how many time it has been recognized; artist ratings can be similarly computed; the most difficult concepts to recognize (either individually or by topic) can also be compiled

- Enroll a team (option 430) – allows a user to set up a new team for play on the site;
- Find teammates (option 431) – allows user to find other persons to be part of a team;
- Find/rate an artist (option 432) – allows a user to search for specific artists by name, topic, concepts ,etc. and rate them if desired
- Search/Rate epicts (option 433) - allows a user to search for specific epicts by artist, topic, concepts ,etc. and rate them if desired
- Review/guess on challenge epicts (option 440) – allows users to pick specific epicts/words to evaluate and play with in accordance with game rules.

Again not all of these options are necessary, and other options could be presented and offered as well, and the particular implementation will vary according to game specifications and requirements.

Some embodiments of the pictorial game can include a rating module 500 as seen in FIG. 5. The purpose of this module is to allow teams 510 and individuals 515 to access and play with a set of benchmark epicts (S1, S2, ... Sn) 520 and evaluate their performance relative to such standard for competitive purposes. The benchmark epict sets can be selected by human editors, or automatically by rating module 500 by evaluating ratings/performances of epicts compiled by tabulating module 230.

In the former case, a human editor may select a number (X) of epicts from database 324 based on a ratings list of X different topics. In the latter case the identity of the individual epicts within the sets is determined by reference to some threshold rating for score, difficulty, etc. In either scenario the epicts are

preferably selected to expose participants to a cross section of the available inventory.

The participants then work through one or more of the epict sets (e.g. S1) and then have their times/accuracy evaluated by a routine 530 such as that described above for FIG. 3A. Their scores, and the ratings (if provided) for the epicts are then compiled by a routine 540 that, again can be similar to that already discussed above.

This aspect of the invention therefore allows members (and teams) to evaluate themselves relative to some test benchmarks for competitive recognition. The results can be published, as noted earlier, for the entertainment of the overall community, to individual profiles, the main game webpage, or other social networking sites.

FIG. 6 illustrates a preferred embodiment of a variant of a rule set 600 used in a pictorial game. Basically this figure describes a format that can be employed in some variants of the game to make it more interesting for some participants in team play applications.

In this embodiment a challenge word/concept is selected for a first team (A) by a routine at 610. This may be done randomly, by topic, or by another rule choice opted by the members.

At 615, and without letting the member of team A see such word, the members of team B are allowed to visualize various epict alternatives selected by the system for presenting such concept. The alternatives may be selected randomly, or, alternatively, may be selected based on a variety of scores/ratings for such epicts. The latter may be used, for example, to provide a reasonable cross section of challenges ranging from easy to difficult.

The members of team B can then (optionally) vote to eliminate (or select) one or more of the alternatives to be used by the system for team A at step 620. In some variants of the games the team members may be allowed to see the difficulty ratings of the epicts as measured by the performance of other individuals/teams.

During step 625 the final epict is then selected for team A based on the

selection made by team B. In some cases it may be desirable to incorporate a randomizer at 630 to select in situations where the selection is not specifically defined.

At 635 the module further allows an option that gives team B yet another opportunity to impair or handicap team A's chances of success in decoding the epict. In particular the routine arbitrarily selects aspects/components of the image which can be selectively removed from the epic to make it more difficult to decipher. Thus team B is again presented with degraded variants of the epict to be shown to A, and they then make a final selection which is presented at step 640.

As an ancillary feature the teams (or individuals for that matter) can make use of a prediction component 650 which allows for review of epicts and their associated concepts to provide a prediction or vote as to whether such epict was recognized by some (system definable) percentage of the community, and/or a prediction of what rating such epict garnered. For example the module may ask the participant a simple yes or no question about whether the epict was recognized within the allotted time by more than 50% of the population? (or more than 75%, etc.) The module can then further request the participant's estimate of the rating given by the community to the epict. The participants can then see how close or far off their predictions are for the epict in question. This aspect of the invention therefore further allows participants to glean insights into the collective thinking of their fellow gamers.

These rule variants are not necessary of course, but provide an additional element of play that may be attractive to some participants. Other examples of such variants will be apparent to skilled artisans from the present teachings.

FIG. 7 depicts a preferred embodiment of a game screen/interface 700 used by a participant in a pictorial game. This screen may be part of an interface that is presented within a conventional browser (or similar Internet browsing utility for a handheld device or game console) to interact with game websites. This same interface may be used as well, as noted above, in connection with user profile pages and the like maintained at social networking sites.

Within the interface the participant is shown an electronic canvass 705 in which the epict is presented visually. Again, the epict may be shown all at once, or it may be staggered as noted earlier. The canvass is preferably scaled in size so as to allow participants to visualize the image without noticeable compression, artifacts, etc.

At portion 710 the user is allowed to enter his/her guess of the object, by keying in an answer, selecting an answer by mouse, or speaking (in the case of a speech recognition embodiment). Other forms of input could be used as well (touch for example).

Section 715 of the interface informs the user of his/her progress in the game. For example the game may consist of a set number of epicts that must be completed to satisfy a game objective, and a time factor may be introduced as well. The participants' score is also displayed at 716.

A time remaining for guessing the epict is shown at 717 in any convenient visual form (digital, analog, hourglass, etc.) and in accordance with user preferences for the interface. In fact, preferably all elements of the interface can be scaled, arranged and formatted in accordance with a desired aesthetic of the user and to give a sense of customization.

The category selected by the user is identified at region 718 of the interface.

At portion 719 of the interface the game may display the answer if the user has selected it correctly (a semantic equivalent may be acceptable). In some instances it may be desirable to "recognize" partial correction portions of a user's answer, so that if he/she inputs "cruise liner" the invention would nonetheless accept and display the "liner" part of the provided answer as acceptable. This acts as a further clue for the participant that the prefix must be different. Other variants will be apparent to those skilled in the art.

The stock of epicts presented within interface 700 can come from multiple sources, including artist submissions 720, and user submissions 730. These are differentiated primarily on the basis of how the origin of the image, rather than any significant technical basis, since both can be accessed from a database 324

(FIG. 3A). Nonetheless the process by which epicts come into existence can be used to augment the accompanying metadata and presentation mode for the participant.

In a first case, artist submissions 721 preferably consist of images created by original artists using one of the drawing tools mentioned above. In such cases the original artwork 722 is selected, and then processed by a routine 723 in the manner noted above for FIGs. 3A and 3B. Thus the image is preferably presented all at once - in a static mode – or using some form of timing, as in a replay mode based on using an actual artist rendering time. The latter could be accelerated or slowed depending on other game parameters.

In other embodiments the epict could be presented in a degraded form (as noted above) that gradually improves with time, based on a variable number of iterations, time, etc. For example the image could be given incremental improvements every 10 seconds until a final image is reached. The participant's score could be weighted according to how quickly they decoded the image (i.e. what level of degradation).

In similar fashion user submissions 731, which may be basic JPEG images, can also be selected at 732 as a form of epict. This type of content is perhaps easier to contribute since many users have electronic cameras, tools for uploading images, online picture accounts (Shutterfly, Flickr, etc.) that can be tapped into for content. The images are preferably pre-treated (see discussion for FIGs. 3A and 3B above) to render them into more artistic form, and/or to create different levels of degradation as noted above. Alternatively, in some embodiments it may be possible to impart this type of visual appearance on the fly within the interface, since sufficient time may be given between iterations to permit this degree of processing. In any event the images are presented, again, using one of the modes above, except of course that in such instances an original “artist” mode would not be possible in the case of a photograph instead of a drawing. Nonetheless it is possible that an artistic rendering could be mimicked in some cases using additional image processing software.

For some applications it may be desirable to simply divide the image file

into physical regions, and present different sets of pixels within regions on a random basis. As an example, a set of N different iterations could be used. At the first iteration, X% of the pixels are revealed. At the second iteration, an additional set of Y% of the pixels for each region are revealed, and so on. This would give the image the appearance of randomly filling in with time. Other variants are of course possible and useable with the present invention.

As with the other embodiments above, the participant can also opt to use musical hints during the presentation of the epict. In addition a hint board 750 may also be displayed within the interface to give further clues to the participant. As noted earlier, the hint board may integrate advertising as well, and the ad stock itself may form part of the visual clue, by way of images, text, music/audio, etc. Because the participants' focus may shift within the interface to pick up and detect such clue, the chances of an ad being perceived (and thus selected eventually) by the user increase dramatically. While the time is running for the epict the hint board images could also be changed if desired. In this respect the stock could be rotated randomly, or based on some programmed logic. In an embodiment where the epict deciphering is timed, the user's selection of an ad within the hint board can be used as a control signal to stop the game clock so that the participant is not penalized for viewing and interacting with an advertisement. For applications where timing is not used this would not be necessary of course.

The advertisers can then also be given options for bidding on what times their ads are presented within the hint board during game play. For example the right to present a visual hint/ad during an earlier portion of the game could be auctioned/priced at a different price than the right to offer the same hint/ad at a second time later in the process. An end-of-epict time option can also be offered, to allow an advertiser to occupy the interface for a longer period at the end of the game. Other options can also be offered, such as the right to opt in or out of an epict in which the participant was successful or not. All of these factors can be used to adjust an appropriate auction and compensation scheme.

The hint board ads could also be tailored based on a performance level

achieved by the participant, and thus a predicted mood of the user. The user's mood could also be determined with reference to prosodic elements in a speech embodiment. For example a first type of ad might be shown if the user was successful in the current/prior epict, compared to a second type of ad if the user was unsuccessful. The invention can monitor the progress and performance of the user to increase (or decrease) the level of visual assistance through the hint board as needed to maintain an entertainment level for the participant. Most players will not want to play a game that is too easy or too hard, and this balance can be struck in part by adjusting the types of supplemental hints given within the interface. Again, too, the advertisers can participate and assist with such process by providing ad stock/associated epicts of various levels of explicitness for a particular concept. The advertisers may also opt to sponsor or present the musical hints and cues associated with the epict. The advertisers can then also be given options for bidding on different levels of visual/audio hints, so that the right to offer a first level of visual assistance is priced at a different price than the right to offer a second higher/lower level of assistance. Since it is more likely a participant will have a positive association with a hint that helps them solve the visual puzzle, this factor can be used to adjust an appropriate compensation scheme.

While some conventional online ads are presented in the form of a game (e.g., they require the user to interact with them, such as using a mouse) it can be seen that the hint board 750 instead behaves as a form of additional artist/participant for the game the user is engaged in. Those skilled in the art will appreciate that this feature may be used advantageously in other game environments in which it is desirable to impart clues/cues to a game player using an interactive ad.

While not shown explicitly the game can of course use and exploit demographic and other profile/behavioral data collected for participants to enhance game play. The epict database 324 of artist and author contributions can be made available to news aggregators, search engines, etc., so that relevant content is presented to web surfers looking for pertinent information on

particular concepts.

As shown in FIG. 8, in some embodiments a search engine, blog, newsfeed or news site 800 may offer accents or other adornments of a page based on epicts contributed by an artist community. For example, a Google news story about a person/place may be coupled with one or more artist caricatures of such person/place.

Similarly, in a search engine page 810, a person looking for the Tower of London may be shown an epict 815 for such as part of the search results page. As with the above embodiments, the epict 815 (preferably compressed to thumbnail size) may be combined with an ad 820 to form a new ad 825, so that the attractiveness of ad stock can be increased for a general searcher using a search engine, and the chances of a click-through increased by virtue of the additional visual aesthetic. This mechanism further allows artists to tap into and benefit from advertising dollars as they can be rewarded for their success in creating incremental benefits over conventional text only ads.

Search engine operators such as Google can thus also maintain a stock of epicts/artists that can be bid upon with a conventional auction engine 830 by advertisers 835, much in the same way keywords are bid upon in an Adwords campaign. The performance of individual epicts in clicks and conversions can be tracked as with any other keyword. This again would allow for a more efficient marketplace to acknowledge and recognize successful advertising copy contributed by artists.

The same advertising and epict coupling can be used of course in an Adsense campaign as well, so that members of an advertising network can have pages 810 supplied by a combination of text and images proven to be attractive to web surfers. Since Adsense campaigns are based on the content of the webpage 810 in question, a similar matching scheme could be done here. If desired, the ad and epict auctions could be de-coupled. That is, both would be evaluated separately for inclusion on a page, so that one matching engine would determine if the advertiser's ad is appropriate for the page, while a separate pictorial matching engine could use a separate algorithm to match metadata for

the epict and thus select it that way. For example a site devoted to fishing may be served with Adsense ads on fishing supplies, while the epict for the page may be in the form of a fishing boat, a hook, a boy fishing off a pier, etc. Other examples will be apparent to those skilled in the art.

5 Consequently epicts can be the subject of auctions based on keywords in queries, by which an advertiser first wins the right to present within the page, and then presents an epict along with the ad. In addition to this the advertiser may separately have to bid on the right to use a particular epict with an ad, so this could be part of a separate auction that is conducted after the first ad auction.
10 Alternatively epicts can be presented based on the content of the pages, the search results, or the ads.

 Other content sites and programs could access the epict database in question as well depending on a desired visual effect. Some music providers, such as Itunes, may offer accompanying epicts for their songs/albums for
15 example. In auction sites, members who do not otherwise have visual images for an offering can elect to use an epict instead at nominal cost. Members of social networking sites may elect to adorn their profile pages with static or rotating epicts devoted to particular set themes, or dynamically based on topics of discussion presented within a discussion wall. The invention can thus mimic the
20 behavior of conventional ad-serving systems which present ads based on the content of a web page. In other words, the content of a web page can be analyzed to determine one or more related topics which are then matched to one or more topics associated with image in a database of images/topics.

 All of the above schemes could be implemented under a royalty scheme
25 that rewards the artists/authors in question.

 It will be understood by those skilled in the art that the above are merely examples and that countless variations on the above can be implemented in accordance with the present teachings. A number of other conventional structures/steps that would be included in a commercial application have been
30 omitted, as well, to better emphasize the present teachings.

 It will be apparent to those skilled in the art that the modules of the present

invention, including those illustrated in the figures can be implemented using any one of many known programming languages suitable for creating applications that can run on large scale computing systems, including servers connected to a network (such as the Internet). The details of the specific implementation of the present invention will vary depending on the programming language(s) used to embody the above principles, and are not material to an understanding of the present invention. Furthermore, in some instances, a portion of the hardware and software will be contained locally to a member's computing system, which can include a portable machine or a computing machine at the users premises, such as a personal computer, a PDA, digital video recorder, receiver, etc.

Furthermore it will be apparent to those skilled in the art that this is not the entire set of software modules that can be used, or an exhaustive list of all operations executed by such modules. It is expected, in fact, that other features will be added by system operators in accordance with customer preferences and/or system performance requirements. Furthermore, while not explicitly shown or described herein, the details of the various software routines, executable code, etc., required to effectuate the functionality discussed above in such modules are not material to the present invention, and may be implemented in any number of ways known to those skilled in the art. Such code, routines, etc. may be stored in any number of forms of machine readable media. The above descriptions are intended as merely illustrative embodiments of the proposed inventions. It is understood that the protection afforded the present invention also comprehends and extends to embodiments different from those above, but which fall within the scope of the present claims.

What is claimed is:

1. A method of providing a motion and/or orientation-based Completely Automatic Public Turing Test To Tell Humans And Computers Apart (CAPTCHA) challenge on a portable computing device comprising:
 - 5 a. automatically electing a manipulation challenge for a user with the portable computing device, wherein said manipulation challenge includes a set of physical manipulation instructions for the portable computing device for the user;
 - 10 b. automatically processing sensory data associated with user movements and/or manipulations of the portable computing device;
 - c. automatically determining if said user movements and/or manipulations from the user meet a required threshold for satisfying said set of manipulation instructions.
- 15 2. The method of claim 1, wherein the set of physical manipulation instructions for the motion and/or orientation based CAPTCHA challenge are presented in an electronic image.
- 20 3. The method of claim 1, wherein the set of physical manipulation instructions for the motion and/or orientation based CAPTCHA challenge are presented in audible form by a text to speech engine operating on the portable computing device.
- 25 4. The method of claim 1, wherein said set of physical manipulation instructions requires the user to move the portable computing device so as to manipulate objects presented in an interface.
- 30 5. The method of claim 1, wherein said set of physical manipulation instructions require the user to orient a needle of a virtual compass in a specified direction.

6. The method of claim 1, wherein said set of physical manipulation instructions require the user to speak or blow into a microphone.
7. The method of claim 1, wherein the motion and/or orientation based CAPTCHA challenge is embodied in computer readable form and implemented as a routine executing on the portable computing device.

8. A method of providing a touch-based Completely Automatic Public Turing Test To Tell Humans And Computers Apart (CAPTCHA) challenge on a portable computing device comprising:

- 5 a. automatically electing a manipulation challenge for a user with the portable computing device, wherein said manipulation challenge includes a set of physical touch instructions for the portable computing device for the user;
- 10 b. automatically processing touch sensory data associated with user movements and/or manipulations of objects within a graphical interface of the portable computing device;
- c. automatically determining if said user touch sensory data meets a required threshold for satisfying said set of physical touch instructions.

15 9. The method of claim 8, wherein the set of physical touch instructions for the motion and/or orientation based CAPTCHA challenge are presented in an electronic image.

20 10. The method of claim 8, wherein the set of physical touch instructions for the motion and/or orientation based CAPTCHA challenge are presented in audible form by a text to speech engine operating on the portable computing device.

25 11. The method of claim 8, wherein said set of physical touch instructions require the user to arrange a set of letters on the graphical interface.

30 12. The method of claim 8, wherein the touch based CAPTCHA challenge is embodied in computer readable form and implemented as a routine executing on the portable computing device.

ABSTRACT

A CAPTCHA system uses images/pictures and/or motion for granting access to a computing system. The images can be culled from examples used in pictorial games, and can progressively presented to increase the strength of the CAPTCHA challenges. Speech recognition, motion and touch sensing can also be employed as parts of the challenge.

5

Fig. 1

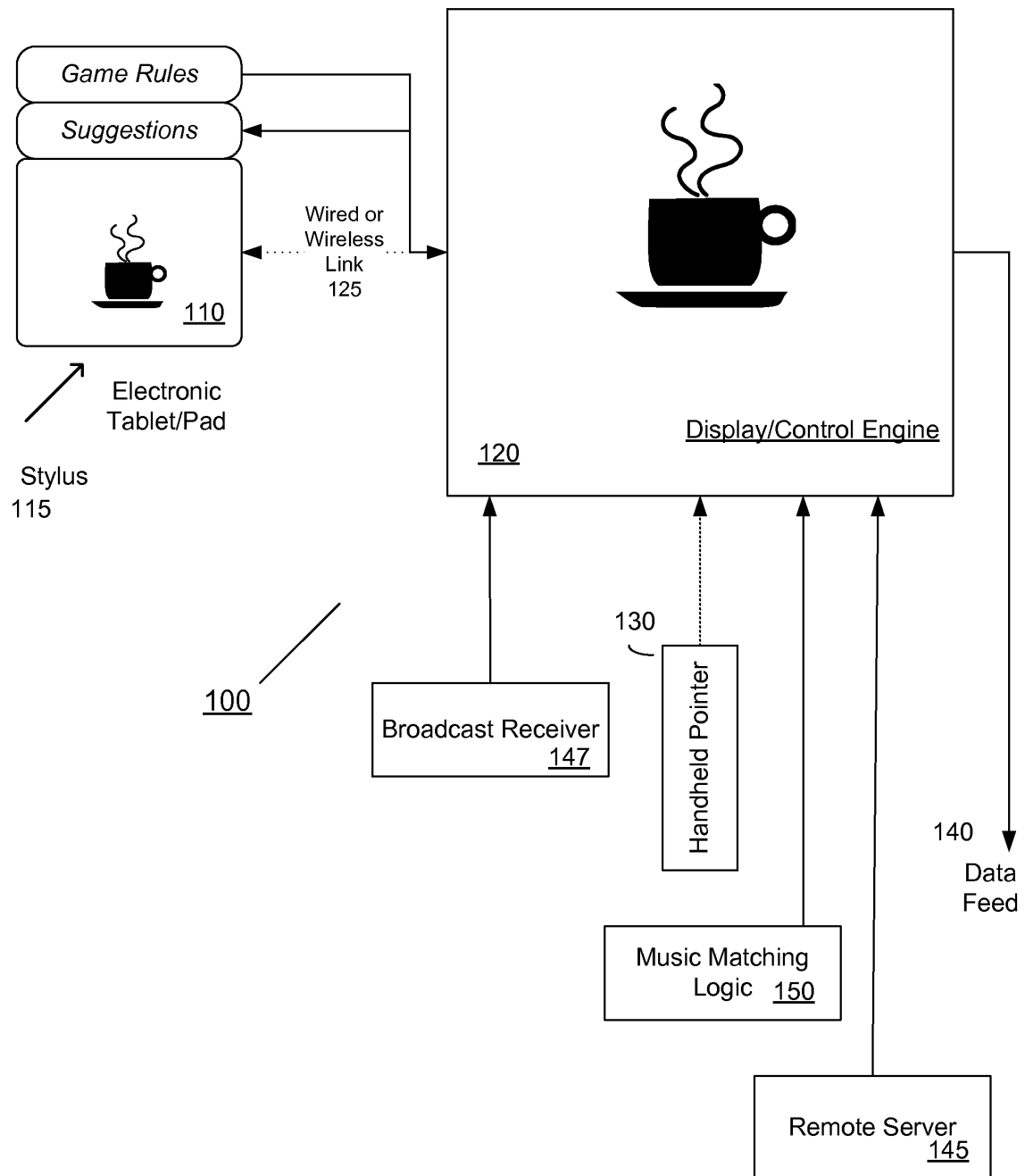


Fig. 2

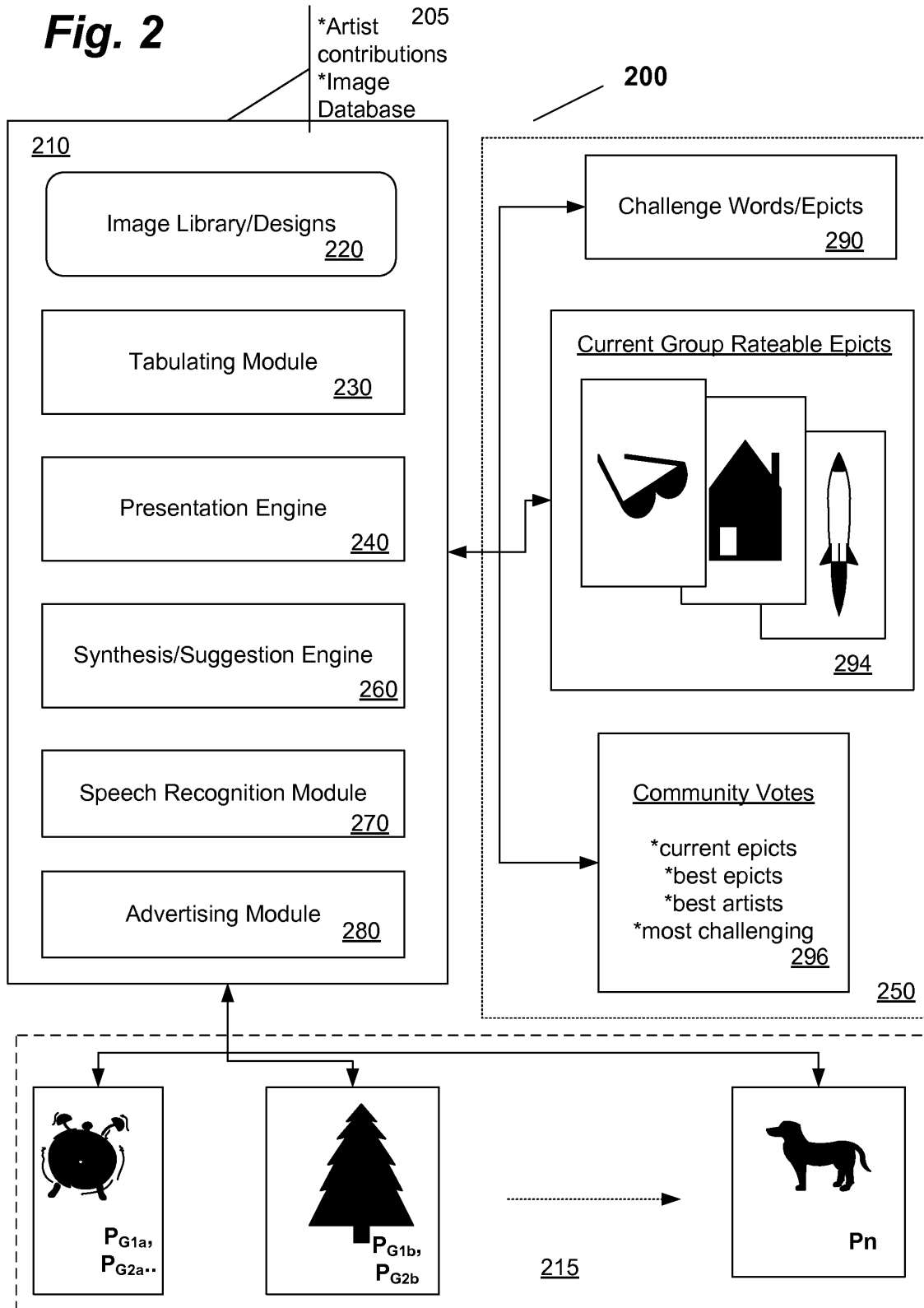


Fig. 3A

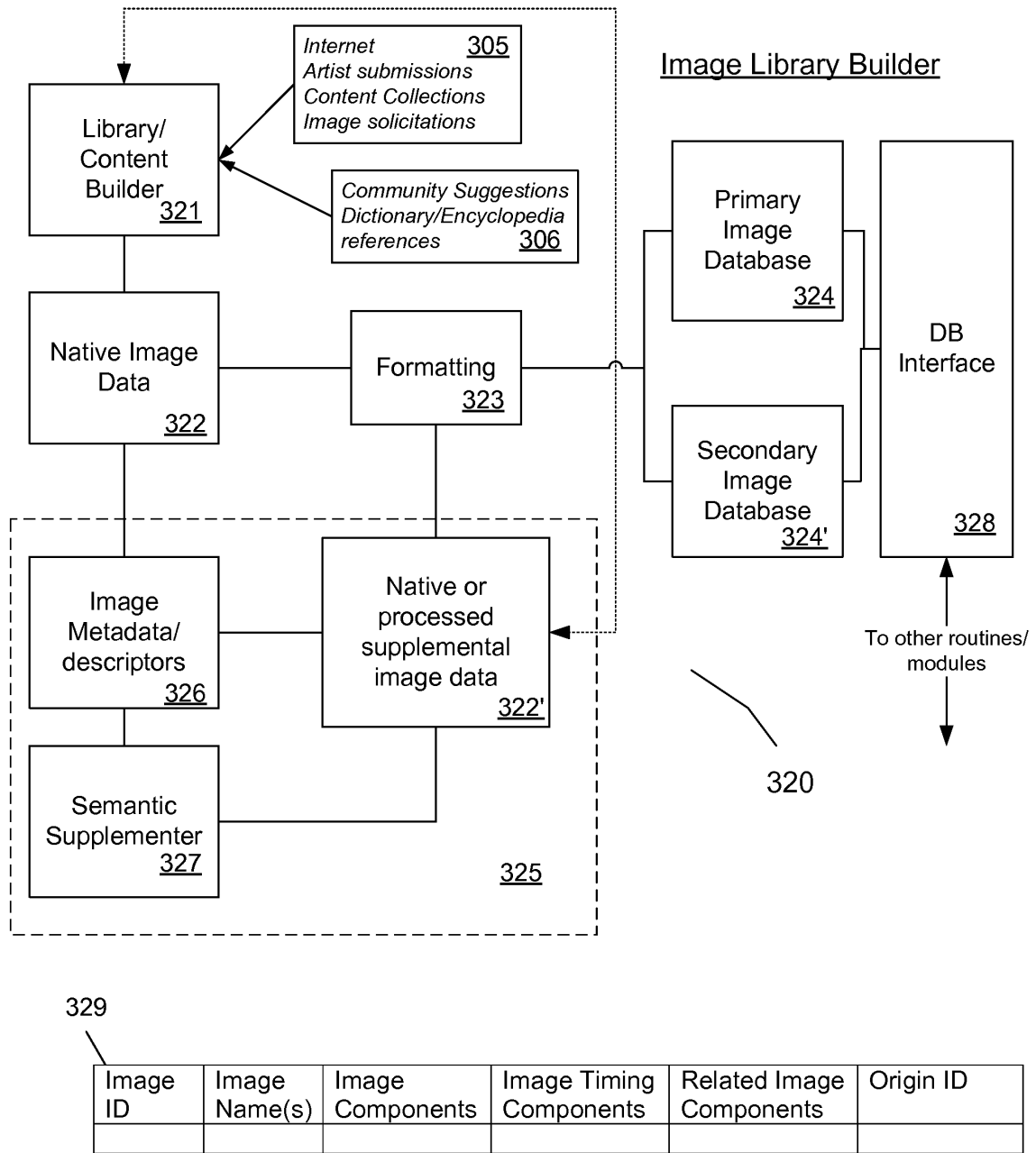


Fig. 3B

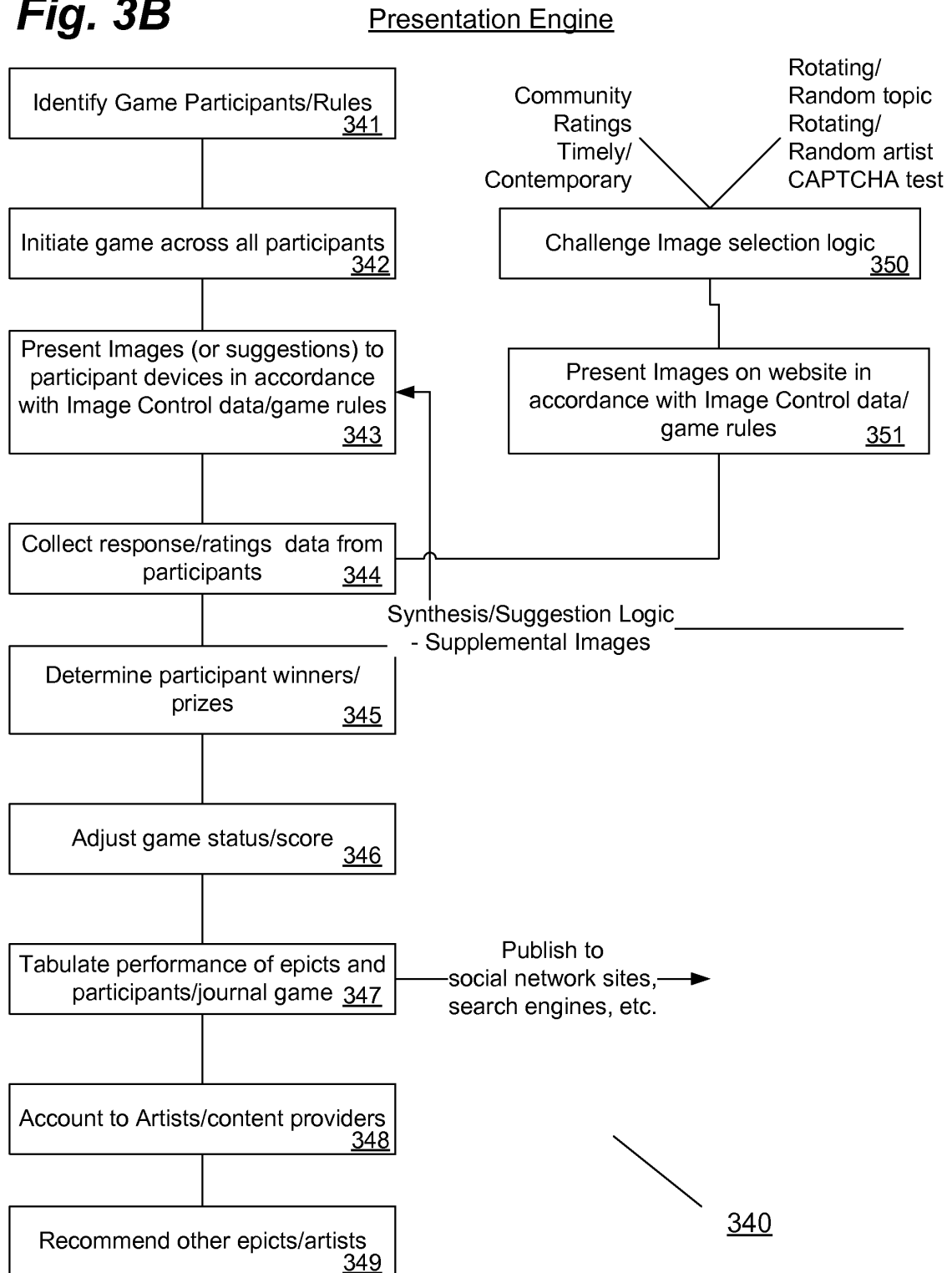
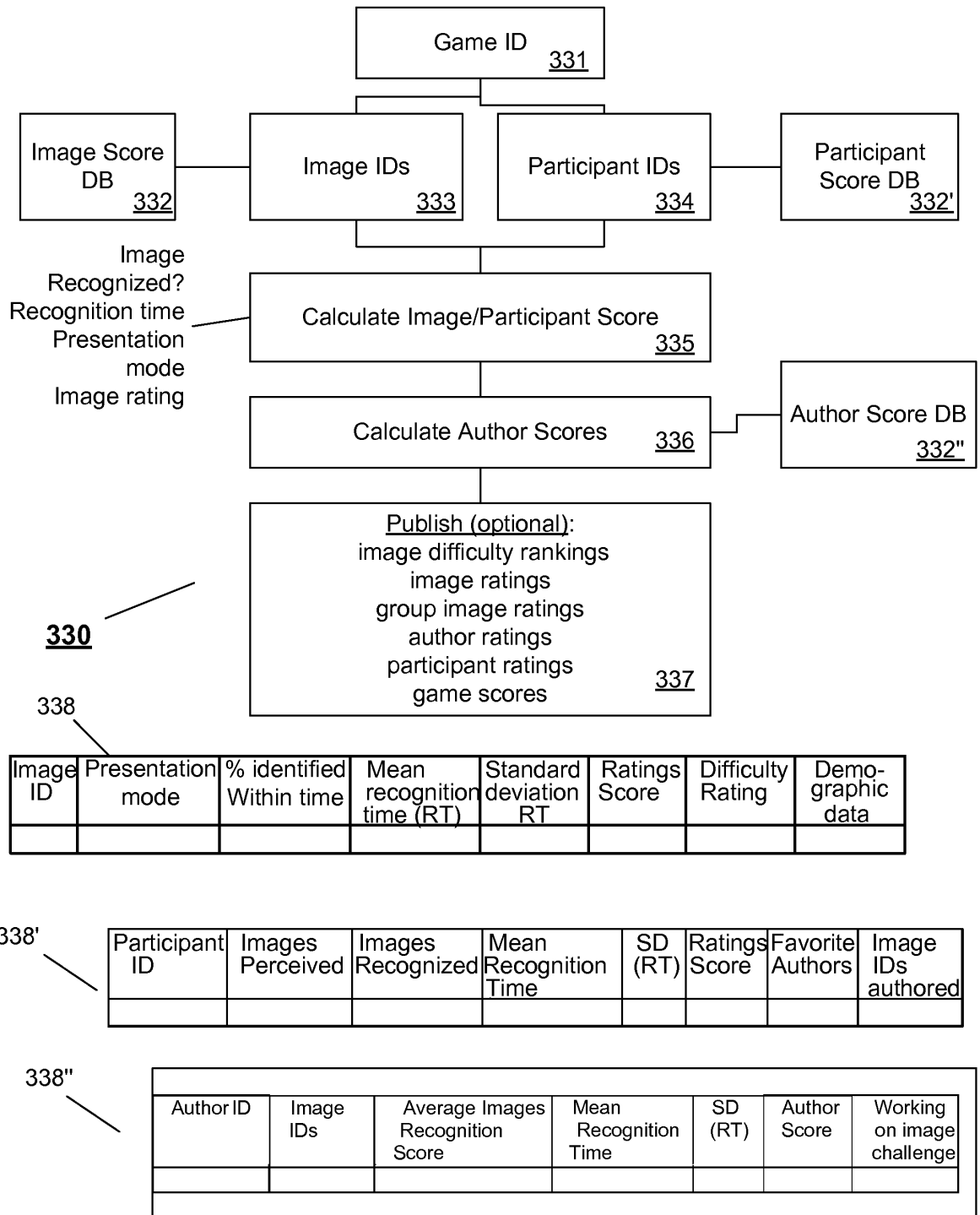
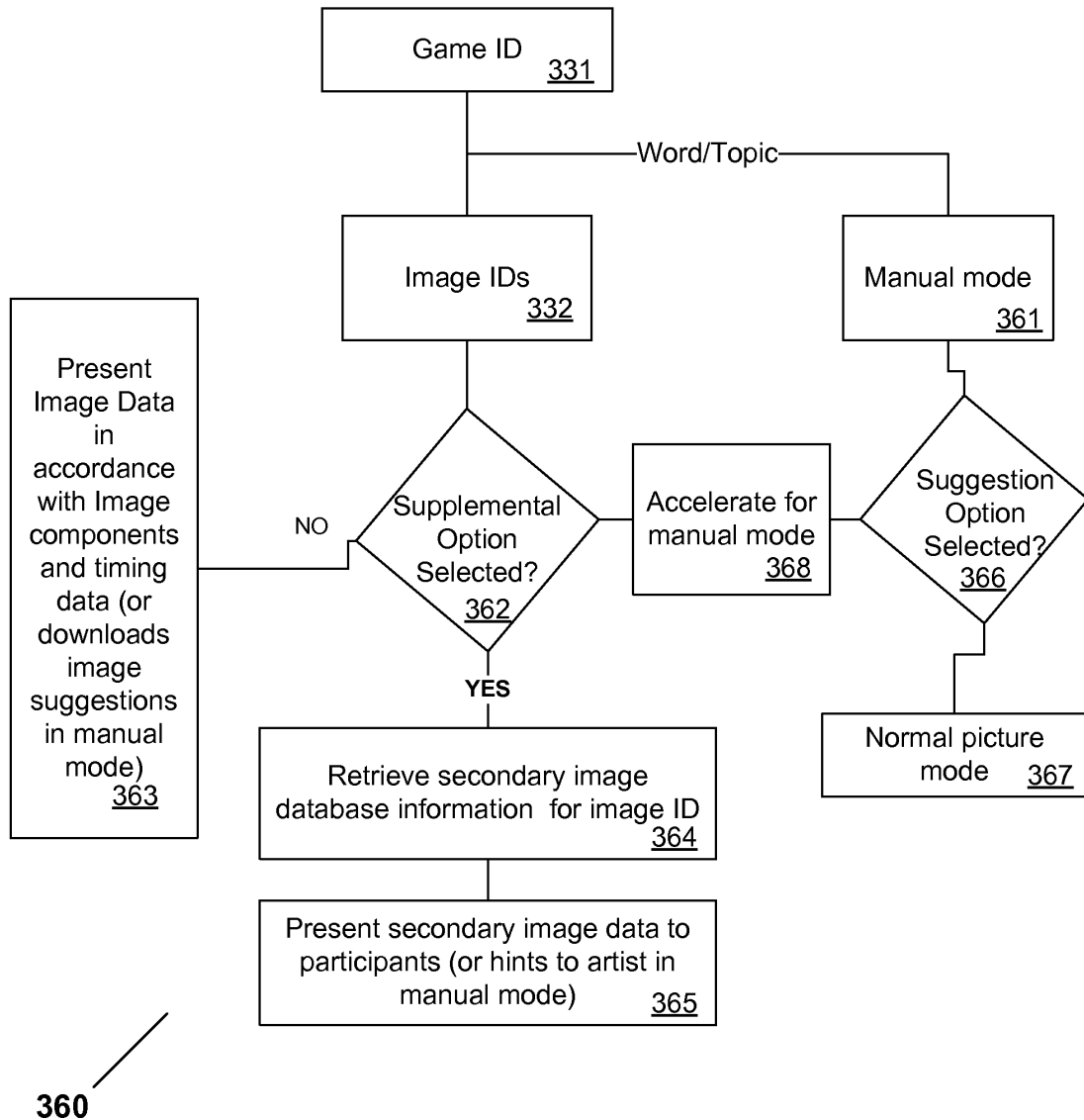


Fig. 3C



Tabulating Module

Fig. 3D



**SYNTHESIS -
SUGGESTION MODULE**

Fig. 3E

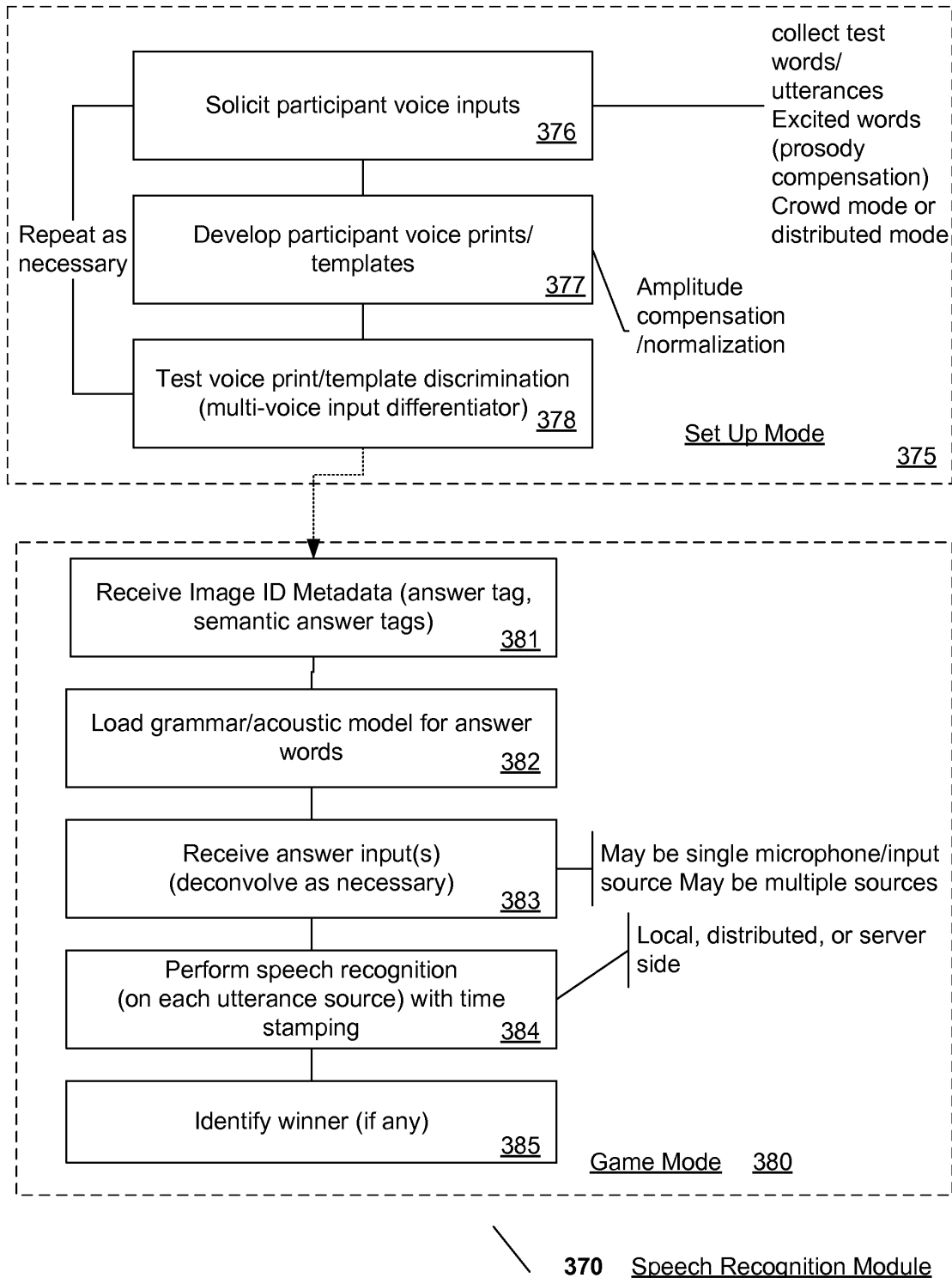


FIG. 3F

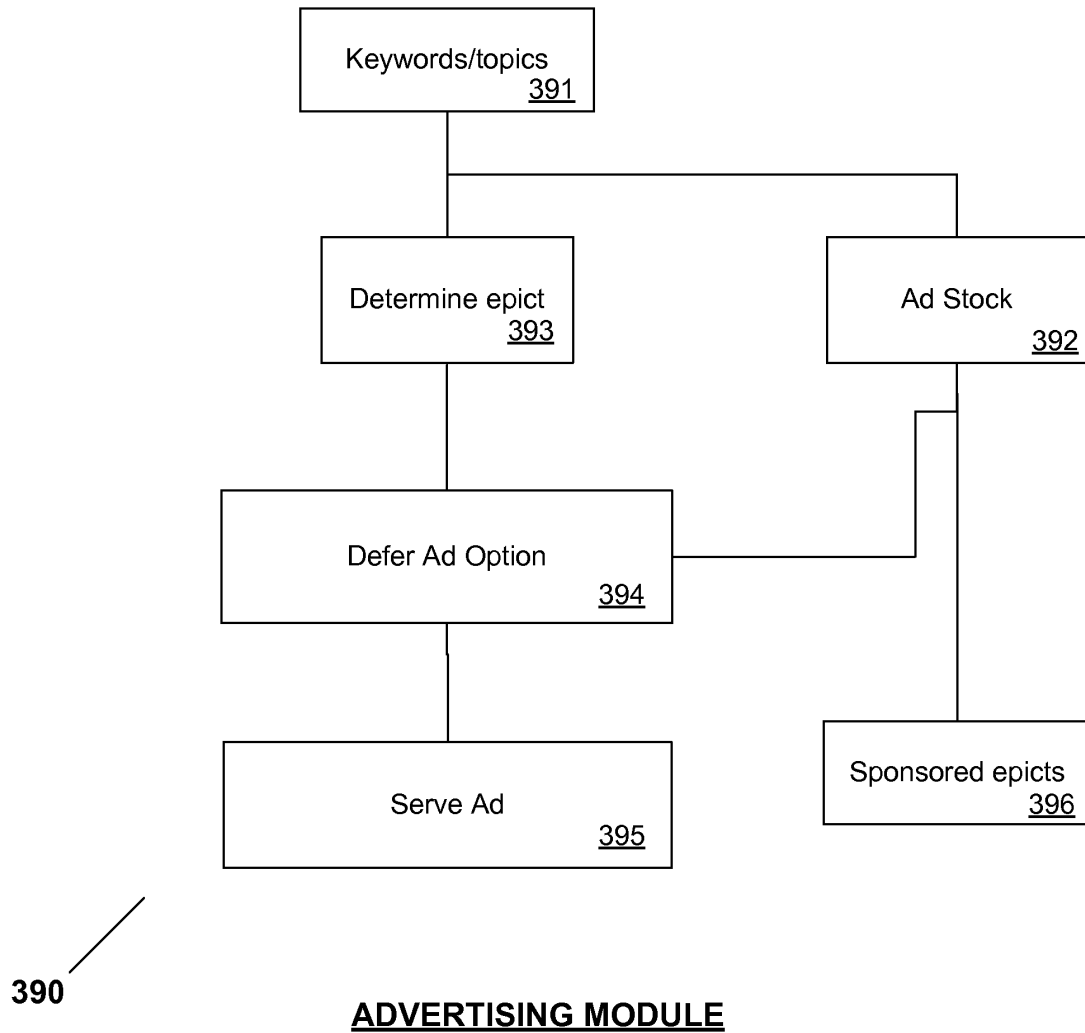


Fig. 3G

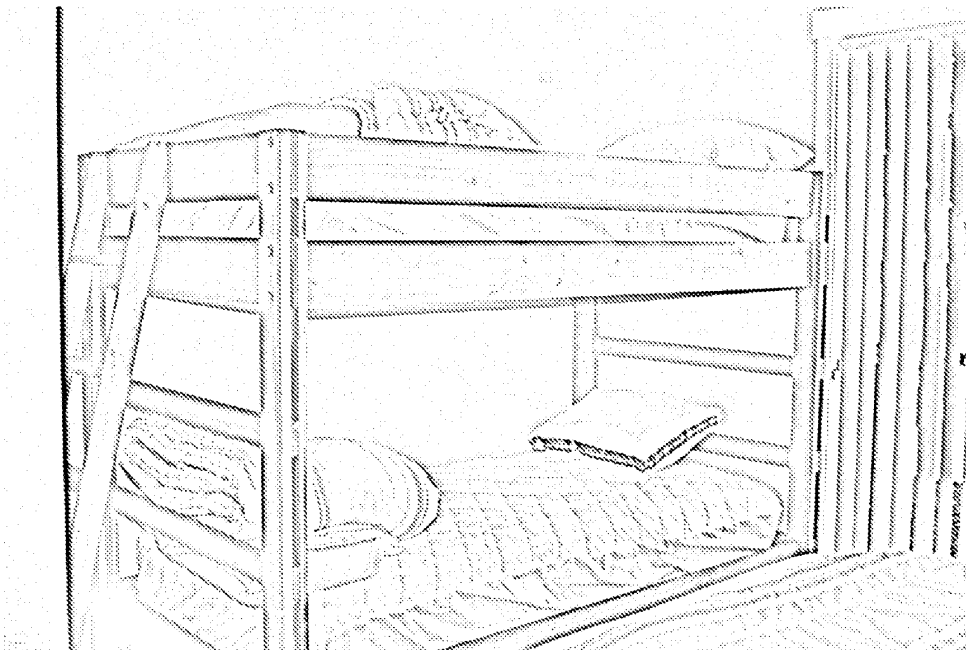


Fig. 3H

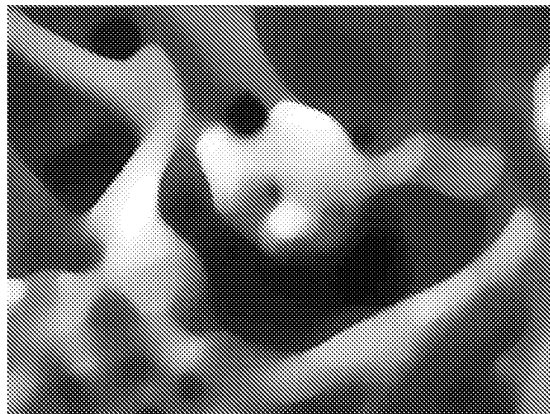


Fig. 3J



Fig. 4

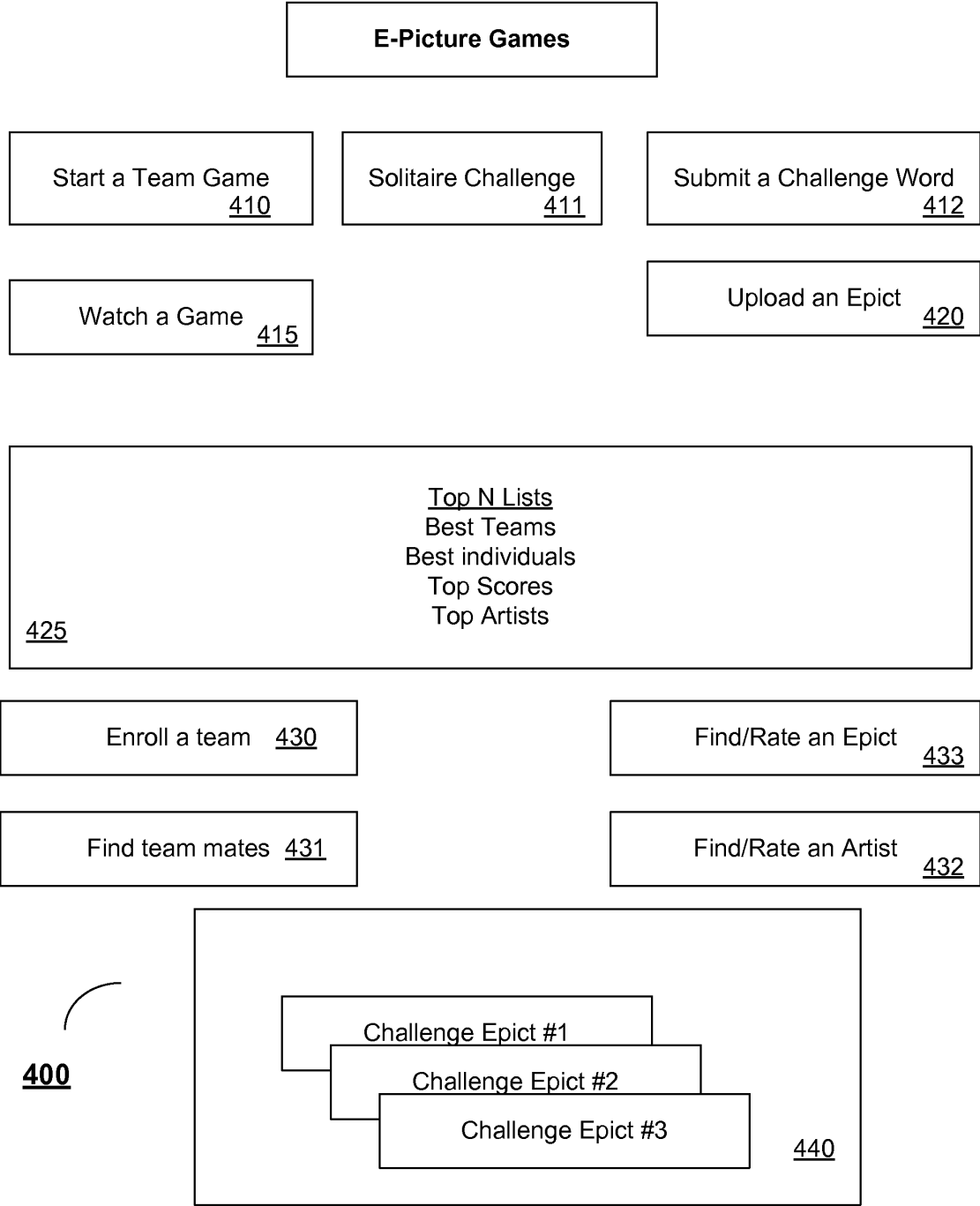


Fig. 5

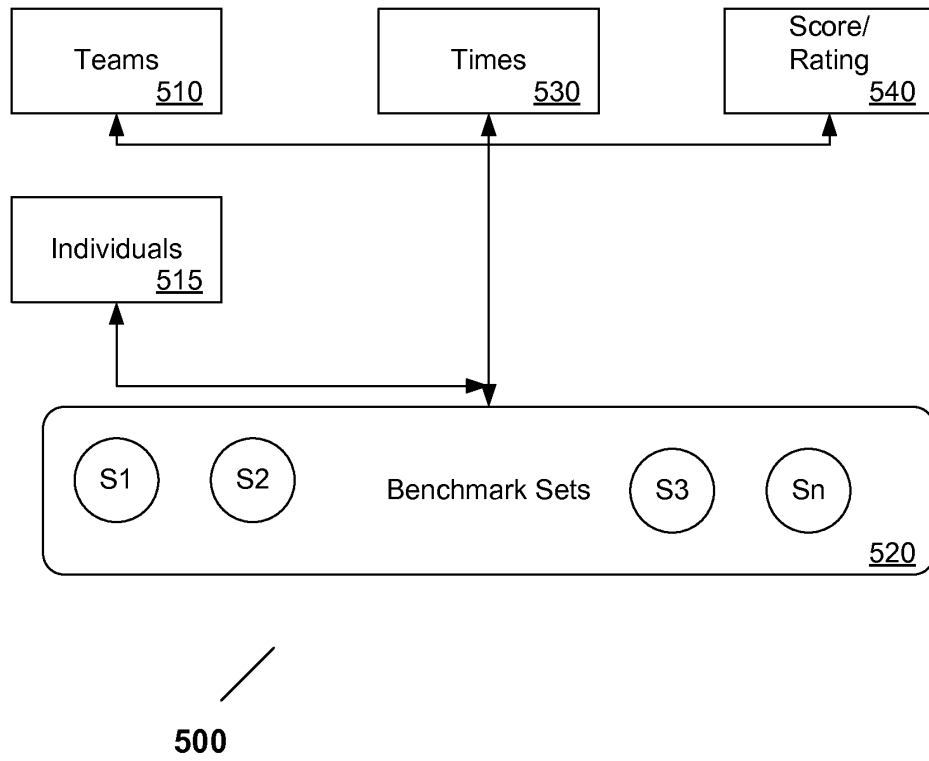
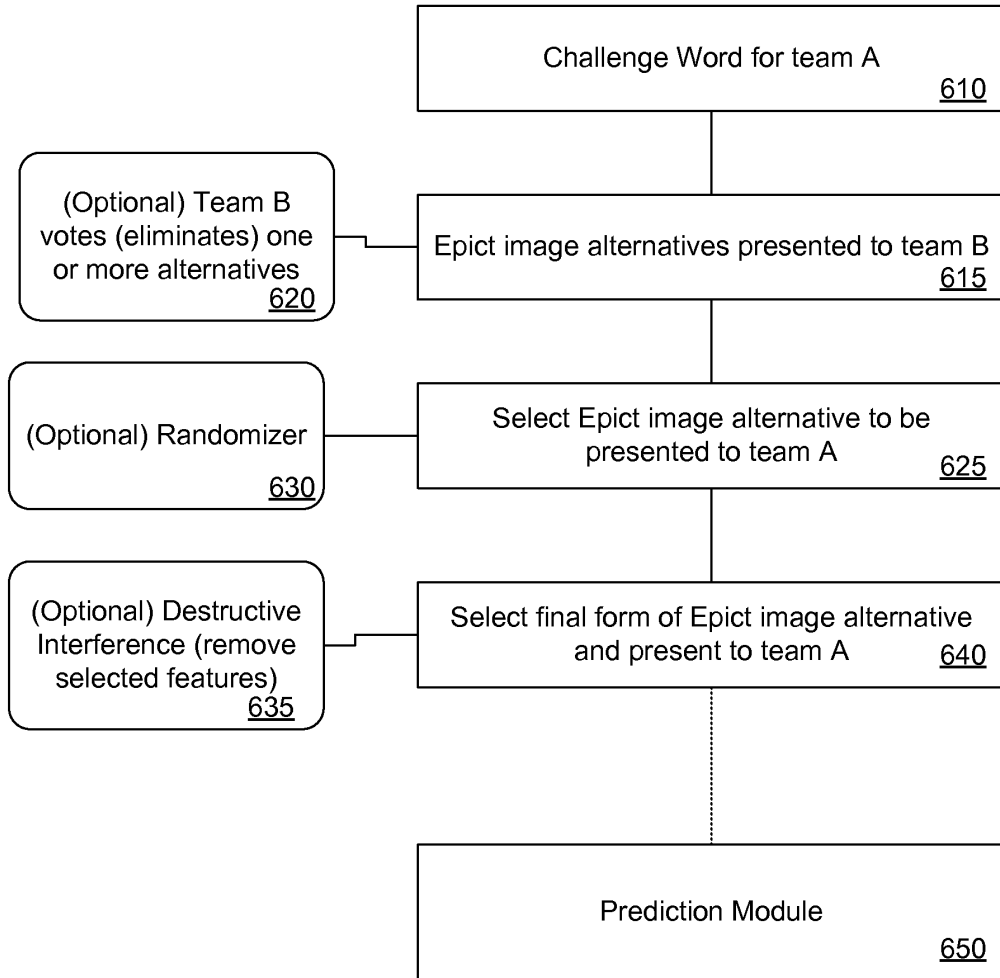


Fig. 6



600

Fig. 7

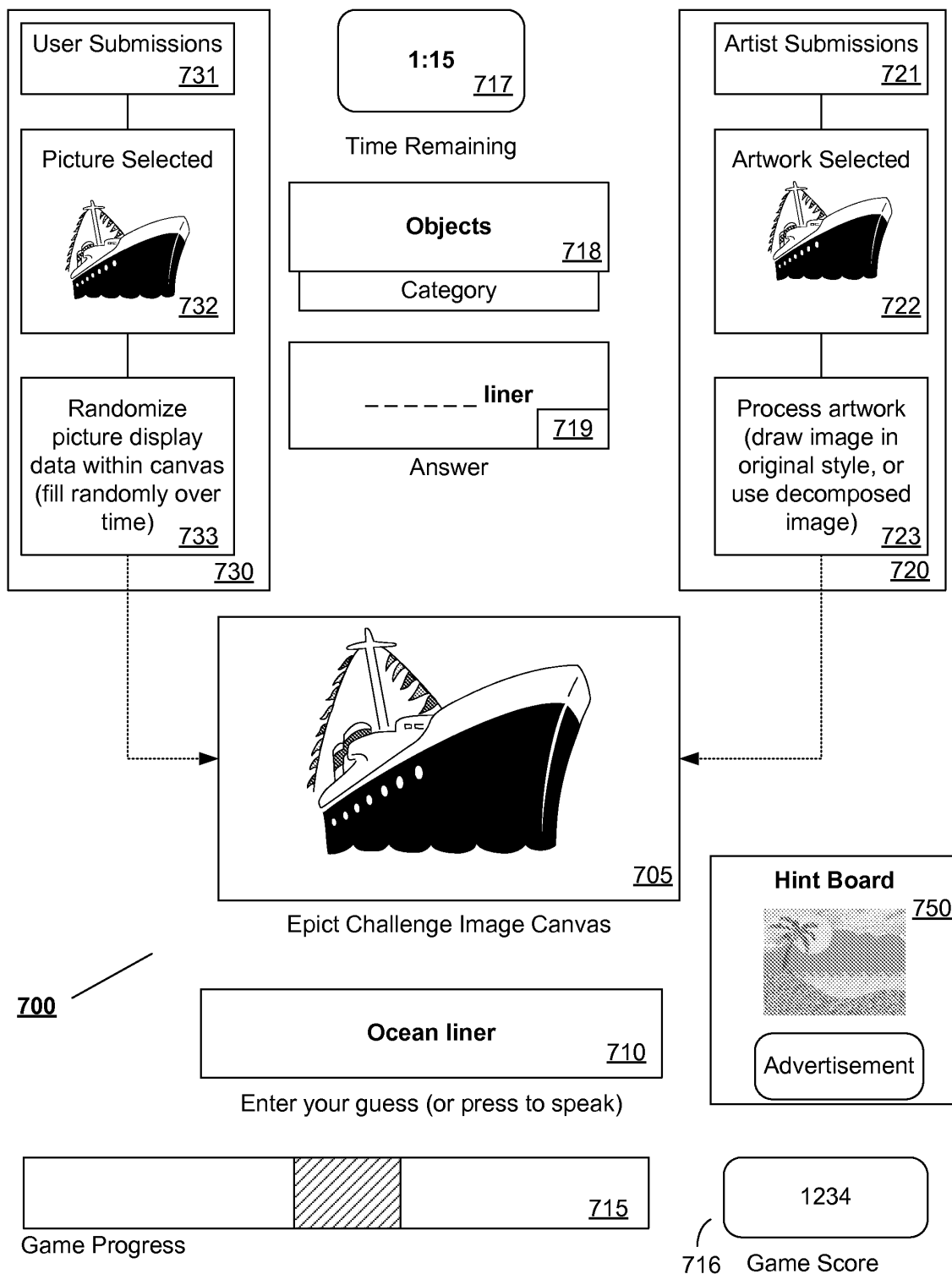
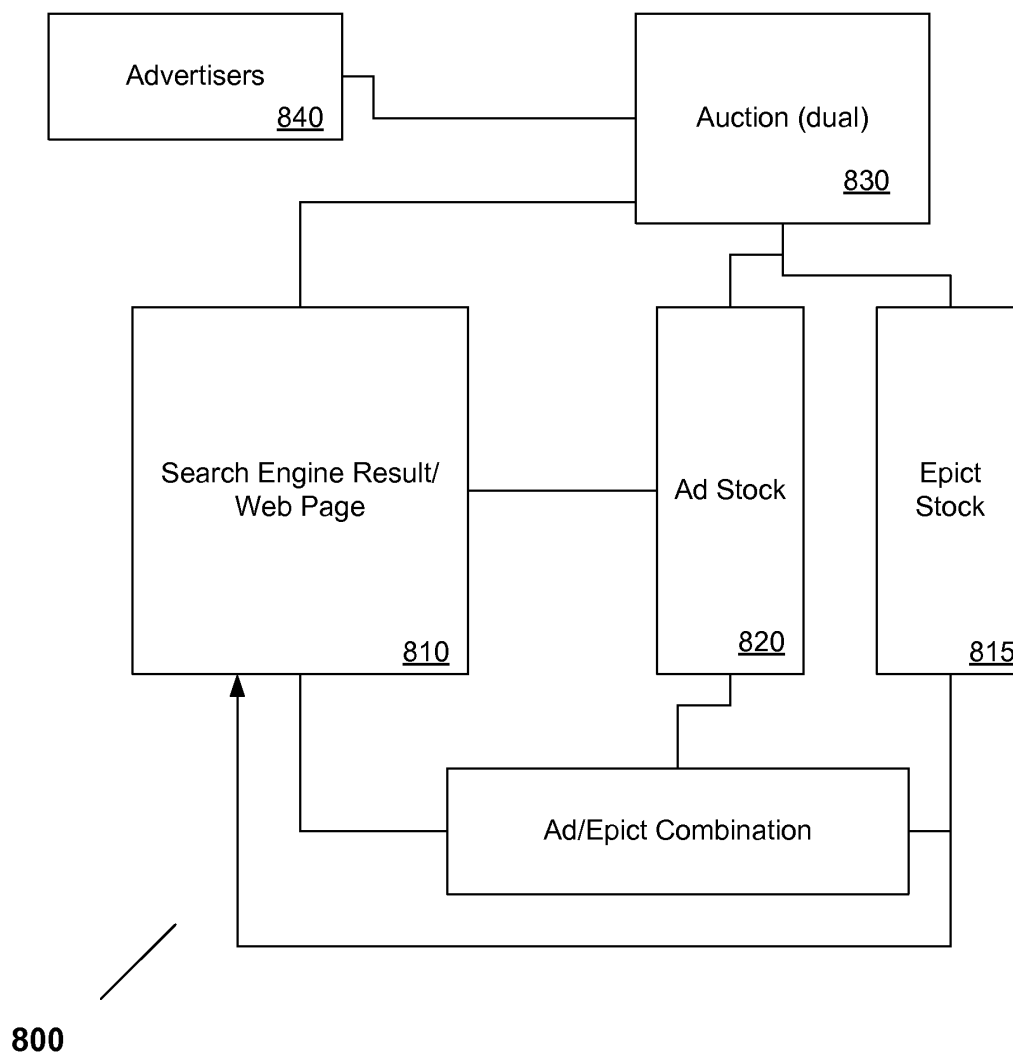


Fig. 8



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

IN RE PATENT APPLICATIONS OF:
John Nicholas Gross

* * *

STATEMENT UNDER 37 C.F.R. § 3.73(b) AND POWER OF ATTORNEY

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

Madam:

The John Nicholas and Kristin Gross Trust U/A/D April 13, 2010 (“the Trust”), states that it is the owner of the entire right, title, and interest in the patent applications identified below by virtue of assignments from the inventor(s) which were recorded in the assignment records of the U.S. Patent and Trademark Office on Reel 025204, at Frame 0115 on October 27, 2010.

As the assignee of the following patent applications, the Trust hereby revokes all prior powers of attorney and authorizations of agent and appoints the practitioners associated with **Customer Number 52447** as its attorney(s) and/or agent(s) to prosecute the patent applications identified below and to transact all business in the United States Patent and Trademark Office connected therewith. This Power of Attorney pertains to:

1. U.S. Provisional Patent Application No. 61/043,363, filed April 8, 2008 and given docket no. JNG 2008P-1.
2. U.S. Provisional Patent Application No. 61/074,979, filed June 23, 2008 and given docket no. JNG 2008-2P.
3. U.S. Provisional Patent Application No. 61/076,495, filed June 27, 2008 and given docket no. JNG 2008-3P.
4. U.S. Patent Application No. 12/484,800, filed June 15, 2009 and given docket no. JNG 2009-1.
5. U.S. Patent Application No. 12/484,837, filed June 15, 2009 and given docket no. JNG 2009-2.

6. U.S. Patent Application No. 12/484,870, filed June 15, 2009 and given docket no. JNG 2009-3.
7. U.S. Patent Application No. 12/494,013, filed June 29, 2009 and given docket no. JNG 2009-4.
8. U.S. Patent Application No. 12/494,065, filed June 29, 2009 and given docket no. JNG 2009-5.
9. U.S. Patent Application No. 12/494,083, filed June 29, 2009 and given docket no. JNG 2009-6.
10. U.S. Patent Application No. 12/335,247, filed December 15, 2008 and given docket no. JNG 2008-10.
11. U.S. Patent Application No. 13/193,847, filed July 29, 2011 and given docket no. JNG 2008-10C1. (A continuation of Application No. 12/335,247.)
12. U.S. Patent Application No. 13/651,279, filed October 12, 2012 and given docket no. JNG 2008-10C2. (A continuation of Application No. 12/335,247.)
13. U.S. Patent Application No. 13/651,171, filed October 12, 2012 and given docket no. JNG 2008-10DIV1. (A divisional of Application No. 12/335,247.)
14. U.S. Patent Application No. 13/651,197, filed October 12, 2012 and given docket no. JNG 2008-10DIV2. (A divisional of Application No. 12/335,247.)
15. U.S. Patent Application No. 13/651,229, filed October 12, 2012 and given docket no. JNG 2008-10DIV3. (A divisional of Application No. 12/335,247.)
16. U.S. Patent Application No. 13/651,243, filed October 12, 2012, and given docket no. JNG 2008-10DIV4. (A divisional of Application No. 12/335,247.)
17. U.S. Patent Application No. 13/651,254, filed October 12, 2012 and given docket no. JNG 2008-10DIV5. (A divisional of Application No. 12/335,247.)
18. U.S. Patent Application No. 13/651,267, filed October 12, 2012 and given docket no. JNG 2008-10DIV6. (A divisional of Application No. 12/335,247.)

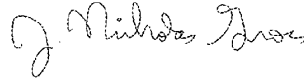
In re applications of John Nicholas Gross
Statement under 37 C.F.R. § 3.73(b) and Power of Attorney

Please direct all correspondence in the above-identified patent applications to the correspondence address associated with **Customer No. 52447**. The undersigned is authorized to sign and act on behalf of the Trust in this matter.

Respectfully submitted,

Date: October 17, 2012

By:

A handwritten signature in cursive script, appearing to read "J. Nicholas Gross".

J. Nicholas Gross
Trustee

Electronic Acknowledgement Receipt	
EFS ID:	18569157
Application Number:	14223848
International Application Number:	
Confirmation Number:	4926
Title of Invention:	Progressive Pictorial & Motion Based CAPTCHAs
First Named Inventor/Applicant Name:	John Nicholas Gross
Customer Number:	52447
Filer:	Andrew James McAleavey
Filer Authorized By:	
Attorney Docket Number:	JNG 2009-6-DIV
Receipt Date:	24-MAR-2014
Filing Date:	
Time Stamp:	19:24:58
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	no
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File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Transmittal of New Application	aia0015.pdf	276037 a6e21f21062d7c3daca57fcd476c8cdf71bfea	no	2

Warnings:

Information:

2	Application Data Sheet	aia0014.pdf	1565619	no	7
			b166c1b89700b280972bf5a0fa65f0154af6ad9a		
Warnings:					
Information:					
3		Application.pdf	282678	yes	48
			c7afa55b18d615f393b02ad1d1dfd2c8463d7f2b		
	Multipart Description/PDF files in .zip description				
	Document Description		Start	End	
	Specification		1	44	
	Claims		45	47	
	Abstract		48	48	
Warnings:					
Information:					
4	Drawings-other than black and white line drawings	drawings.pdf	830713	no	16
			7a0825189ab134f3201825f33363a279b013b4cb		
Warnings:					
Information:					
5	Power of Attorney	PofA373.pdf	83733	no	3
			3dbccf859efcf480ab5ae36ef80a87c00e12c9fc		
Warnings:					
Information:					
Total Files Size (in bytes):			3038780		

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.

AO 120 (Rev. 08/10)

TO: Mail Stop 8 Director of the U.S. Patent and Trademark Office P.O. Box 1450 Alexandria, VA 22313-1450	REPORT ON THE FILING OR DETERMINATION OF AN ACTION REGARDING A PATENT OR TRADEMARK
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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 - WACO DIVISION on the following

☐ Trademarks or ☐ Patents. (☐ the patent action involves 35 U.S.C. § 292.);

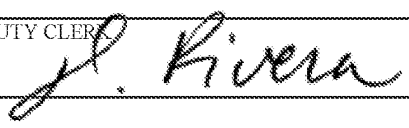
DOCKET NO. 6:20-cv-00310	DATE FILED 4/22/2020	U.S. DISTRICT COURT WESTERN DISTRICT OF TEXAS - WACO DIVISION
PLAINTIFF HUMAN DIFFERENTIAL INTELLIGENCE LLC,		DEFENDANT BED BATH & BEYOND, INC.
PATENT OR TRADEMARK NO.	DATE OF PATENT OR TRADEMARK	HOLDER OF PATENT OR TRADEMARK
1 8,752,141	6/10/2014	HUMAN DIFFERENTIAL INTELLIGENCE, LLC
2 9,192,861	11/24/2015	HUMAN DIFFERENTIAL INTELLIGENCE, LLC
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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
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In the above—entitled case, the following decision has been rendered or judgement issued:

DECISION/JUDGEMENT 1/6/2021 ORDER GRANTING Motion to Dismiss (document 44)
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CLERK Philip J. Devlin	(BY) DEPUTY CLERK 	DATE 07/08/2022
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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

AO 120 (Rev. 08/10)

TO: Mail Stop 8 Director of the U.S. Patent and Trademark Office P.O. Box 1450 Alexandria, VA 22313-1450	REPORT ON THE FILING OR DETERMINATION OF AN ACTION REGARDING A PATENT OR TRADEMARK
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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 - WACO DIVISION on the following

☐ Trademarks or ☐ Patents. (☐ the patent action involves 35 U.S.C. § 292.);

DOCKET NO. 6:20-cv-00307	DATE FILED 4/22/2020	U.S. DISTRICT COURT WESTERN DISTRICT OF TEXAS - WACO DIVISION
PLAINTIFF HUMAN DIFFERENTIAL INTELLIGENCE LLC,		DEFENDANT THE GAP, INC.
PATENT OR TRADEMARK NO.	DATE OF PATENT OR TRADEMARK	HOLDER OF PATENT OR TRADEMARK
1 8,752,141	6/10/2014	HUMAN DIFFERENTIAL INTELLIGENCE, LLC
2 9,192,861	11/24/2015	HUMAN DIFFERENTIAL INTELLIGENCE, LLC
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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
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In the above—entitled case, the following decision has been rendered or judgement issued:

DECISION/JUDGEMENT 1/6/2021 ORDER GRANTING Motion to Dismiss (document 37)
--

CLERK Philip J. Devlin	(BY) DEPUTY CLERK	DATE 07/08/2022
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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

AO 120 (Rev. 08/10)

TO: Mail Stop 8 Director of the U.S. Patent and Trademark Office P.O. Box 1450 Alexandria, VA 22313-1450	REPORT ON THE FILING OR DETERMINATION OF AN ACTION REGARDING A PATENT OR TRADEMARK
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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 - WACO DIVISION on the following

☐ Trademarks or ☐ Patents. (☐ the patent action involves 35 U.S.C. § 292.);

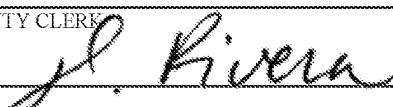
DOCKET NO. 6:20-cv-00305	DATE FILED 4/22/2020	U.S. DISTRICT COURT WESTERN DISTRICT OF TEXAS - WACO DIVISION
PLAINTIFF HUMAN DIFFERENTIAL INTELLIGENCE LLC,		DEFENDANT CIGNA CORPORATION
PATENT OR TRADEMARK NO.	DATE OF PATENT OR TRADEMARK	HOLDER OF PATENT OR TRADEMARK
1 8,752,141	6/10/2014	HUMAN DIFFERENTIAL INTELLIGENCE, LLC
2 9,192,861	11/24/2015	HUMAN DIFFERENTIAL INTELLIGENCE, LLC
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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
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In the above—entitled case, the following decision has been rendered or judgement issued:

DECISION/JUDGEMENT 1/6/2021 ORDER GRANTING Motion to Dismiss (document 49)
--

CLERK Philip J. Devlin	(BY) DEPUTY CLERK 	DATE 07/08/2022
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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

AO 120 (Rev. 08/10)

TO: Mail Stop 8 Director of the U.S. Patent and Trademark Office P.O. Box 1450 Alexandria, VA 22313-1450	REPORT ON THE FILING OR DETERMINATION OF AN ACTION REGARDING A PATENT OR TRADEMARK
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☐ Trademarks or ☐ Patents. (☐ the patent action involves 35 U.S.C. § 292.);

DOCKET NO. 6:20-cv-00310	DATE FILED 4/22/2020	U.S. DISTRICT COURT WESTERN DISTRICT OF TEXAS - WACO DIVISION
PLAINTIFF HUMAN DIFFERENTIAL INTELLIGENCE LLC,		DEPENDANT BED BATH & BEYOND, INC.
PATENT OR TRADEMARK NO.	DATE OF PATENT OR TRADEMARK	HOLDER OF PATENT OR TRADEMARK
1 8,752,141	6/10/2014	HUMAN DIFFERENTIAL INTELLIGENCE, LLC
2 9,192,861	11/24/2015	HUMAN DIFFERENTIAL INTELLIGENCE, LLC
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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
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In the above—entitled case, the following decision has been rendered or judgement issued:

DECISION/JUDGEMENT		
CLERK	(BY) DEPUTY CLERK	DATE

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AO 120 (Rev. 08/10)

TO: Mail Stop 8 Director of the U.S. Patent and Trademark Office P.O. Box 1450 Alexandria, VA 22313-1450	REPORT ON THE FILING OR DETERMINATION OF AN ACTION REGARDING A PATENT OR TRADEMARK
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☐ Trademarks or ☐ Patents. (☐ the patent action involves 35 U.S.C. § 292.);

DOCKET NO. 6:20-cv-00307	DATE FILED 4/22/2020	U.S. DISTRICT COURT WESTERN DISTRICT OF TEXAS - WACO DIVISION
PLAINTIFF HUMAN DIFFERENTIAL INTELLIGENCE LLC,		DEPENDANT THE GAP, INC.
PATENT OR TRADEMARK NO.	DATE OF PATENT OR TRADEMARK	HOLDER OF PATENT OR TRADEMARK
1 8,752,141	6/10/2014	HUMAN DIFFERENTIAL INTELLIGENCE, LLC
2 9,192,861	11/24/2015	HUMAN DIFFERENTIAL INTELLIGENCE, LLC
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PATENT OR TRADEMARK NO.	DATE OF PATENT OR TRADEMARK	HOLDER OF PATENT OR TRADEMARK
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In the above—entitled case, the following decision has been rendered or judgement issued:

DECISION/JUDGEMENT		
CLERK	(BY) DEPUTY CLERK	DATE

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TO: Mail Stop 8 Director of the U.S. Patent and Trademark Office P.O. Box 1450 Alexandria, VA 22313-1450	REPORT ON THE FILING OR DETERMINATION OF AN ACTION REGARDING A PATENT OR TRADEMARK
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☐ Trademarks or ☐ Patents. (☐ the patent action involves 35 U.S.C. § 292.);

DOCKET NO. 6:20-cv-00311	DATE FILED 4/22/2020	U.S. DISTRICT COURT WESTERN DISTRICT OF TEXAS - WACO DIVISION
PLAINTIFF HUMAN DIFFERENTIAL INTELLIGENCE LLC,		DEPENDANT CVS HEALTH CORPORATION
PATENT OR TRADEMARK NO.	DATE OF PATENT OR TRADEMARK	HOLDER OF PATENT OR TRADEMARK
1 8,752,141	6/10/2014	HUMAN DIFFERENTIAL INTELLIGENCE, LLC
2 9,192,861	11/24/2015	HUMAN DIFFERENTIAL INTELLIGENCE, LLC
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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
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DECISION/JUDGEMENT		
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AO 120 (Rev. 08/10)

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☐ Trademarks or ☐ Patents. (☐ the patent action involves 35 U.S.C. § 292.);

DOCKET NO. 6:20-cv-00305	DATE FILED 4/22/2020	U.S. DISTRICT COURT WESTERN DISTRICT OF TEXAS - WACO DIVISION
PLAINTIFF HUMAN DIFFERENTIAL INTELLIGENCE LLC,		DEPENDANT CIGNA CORPORATION
PATENT OR TRADEMARK NO.	DATE OF PATENT OR TRADEMARK	HOLDER OF PATENT OR TRADEMARK
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2 9,192,861	11/24/2015	HUMAN DIFFERENTIAL INTELLIGENCE, LLC
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