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Application Number: 17503675

Document Date: 10/18/2021

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UTILITY PATENT APPLICATION TRANSMITTAL <i>(Only for new nonprovisional applications under 37 CFR 1.53(b))</i>		Attorney Docket No. 56000-701.301	
		First Named Inventor Nicholas Kingsley Mason	
		Title METHODS AND SYSTEMS FOR INTERACTIVE CONTENT CREATION	
		Priority Mail Express® Label No. E-Filed 10/18/2021	

APPLICATION ELEMENTS <i>See MPEP chapter 600 concerning utility patent application contents.</i>	Commissioner for Patents 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>38</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>20</u>] 6. Inventor's Oath or Declaration [Total Pages <u>1</u>] (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: Certification and Request for Prioritized Examination Under 37 CFR 1.102(e) _____ _____ _____
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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>021971</u> OR ☐ Correspondence address below				
Name				
Address				
City	State	Zip Code		
Country	Telephone	Email		

Signature	/Shuaimin Liu/	Date	10/18/2021
Name (Print/Type)	Shuaimin Liu	Registration No. (Attorney/Agent)	L1361

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.

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

First Named Inventor:	Nicholas Kingsley Mason	Nonprovisional Application Number (if known):	
Title of Invention:	METHODS AND SYSTEMS FOR INTERACTIVE CONTENT CREATION		

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

1. The processing fee set forth in 37 CFR 1.17(i)(1) and the prioritized examination fee set forth in 37 CFR 1.17(c) have been filed with the request. The publication fee requirement is met because that fee, set forth in 37 CFR 1.18(d), is currently \$0. The basic filing fee, search fee, and examination fee are filed with the request or have been already been paid. I understand that any required excess claims fees or application size fee must be paid for the application.
2. I understand that the application may not contain, or be amended to contain, more than four independent claims, more than thirty total claims, or any multiple dependent claims, and that any request for an extension of time will cause an outstanding Track I request to be dismissed.
3. The applicable box is checked below:

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

- i. (a) The application is an original nonprovisional utility application filed under 35 U.S.C. 111(a). This certification and request is being filed with the utility application via EFS-Web.
---OR---
(b) The application is an original nonprovisional plant application filed under 35 U.S.C. 111(a). This certification and request is being filed with the plant application in paper.
- ii. An executed inventor's oath or declaration under 37 CFR 1.63 or 37 CFR 1.64 for each inventor, or the application data sheet meeting the conditions specified in 37 CFR 1.53(f)(3)(i) is filed with the application.

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

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

Signature	/Shuaimin Liu/	Date	10/18/2021
Name (Print/Typed)	Shuaimin Liu	Practitioner Registration Number	L1361
Note: This form must be signed in accordance with 37 CFR 1.33. See 37 CFR 1.4(d) for signature requirements and certifications. Submit multiple forms if more than one signature is required.*			
☒ *Total of <u>1</u> forms are submitted.			

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	56000-701.301
		Application Number	
Title of Invention	METHODS AND SYSTEMS FOR INTERACTIVE CONTENT CREATION		
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.)
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Inventor Information:

Inventor	1				Remove
Legal Name					
Prefix	Given Name	Middle Name	Family Name	Suffix	
	Nicholas	Kingsley	Mason		
Residence Information (Select One) US Residency • Non US Residency Active US Military Service					
City	St Albans		Country of Residence ⁱ	UK	
Mailing Address of Inventor:					
Address 1		22 – 25 Farringdon Street			
Address 2					
City	London	State/Province			
Postal Code	EC4A 4AB	Country ⁱ	UK		
All Inventors Must Be Listed - Additional Inventor Information blocks may be generated within this form by selecting the Add button.					

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	021971		
Email Address	patentdocket@wsgr.com	Add Email	Remove Email

Application Information:

Title of the Invention	METHODS AND SYSTEMS FOR INTERACTIVE CONTENT CREATION		
Attorney Docket Number	56000-701.301	Small Entity Status Claimed	☐
Application Type	Nonprovisional		
Subject Matter	Utility		
Total Number of Drawing Sheets (if any)	20	Suggested Figure for Publication (if any)	

Application Data Sheet 37 CFR 1.76		Attorney Docket Number	56000-701.301
		Application Number	
Title of Invention	METHODS AND SYSTEMS FOR INTERACTIVE CONTENT CREATION		

Filing By Reference:

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

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

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

Publication Information:

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

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

Representative Information:

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

Please Select One:	☒ Customer Number	US Patent Practitioner	☐ Limited Recognition (37 CFR 11.9)
Customer Number	021971		

Domestic Benefit/National Stage Information:

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

When referring to the current application, please leave the "Application Number" field blank.

Prior Application Status	Pending	Remove	
Application Number	Continuity Type	Prior Application Number	Filing or 371(c) Date (YYYY-MM-DD)
	Continuation of	17347899	2021-06-15

Application Data Sheet 37 CFR 1.76		Attorney Docket Number	56000-701.301
		Application Number	
Title of Invention	METHODS AND SYSTEMS FOR INTERACTIVE CONTENT CREATION		
Prior Application Status	Pending	Remove	
Application Number	Continuity Type	Prior Application Number	Filing or 371(c) Date (YYYY-MM-DD)
17347899	Claims benefit of provisional	63048512	2020-07-06
Additional Domestic Benefit/National Stage Data may be generated within this form by selecting the Add button.			Add

Foreign Priority Information:

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

			Remove
Application Number	Country ⁱ	Filing Date (YYYY-MM-DD)	Access Code ⁱ (if applicable)
Additional Foreign Priority Data may be generated within this form by selecting the Add button.			Add

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

☐ This application (1) claims priority to or the benefit of an application filed before March 16, 2013 and (2) also contains, or contained at any time, a claim to a claimed invention that has an effective filing date on or after March 16, 2013.

NOTE: By providing this statement under 37 CFR 1.55 or 1.78, this application, with a filing date on or after March 16, 2013, will be examined under the first inventor to file provisions of the AIA.

Application Data Sheet 37 CFR 1.76		Attorney Docket Number	56000-701.301
		Application Number	
Title of Invention	METHODS AND SYSTEMS FOR INTERACTIVE CONTENT CREATION		

Authorization or Opt-Out of Authorization to Permit Access:

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

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

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

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

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

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

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

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

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

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

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

Application Data Sheet 37 CFR 1.76		Attorney Docket Number	56000-701.301
		Application Number	
Title of Invention	METHODS AND SYSTEMS FOR INTERACTIVE CONTENT CREATION		

Applicant Information:

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

Applicant	1	Remove
If the applicant is the inventor (or the remaining joint inventor or inventors under 37 CFR 1.45), this section should not be completed. The information to be provided in this section is the name and address of the legal representative who is the applicant under 37 CFR 1.43; or the name and address of the assignee, person to whom the inventor is under an obligation to assign the invention, or person who otherwise shows sufficient proprietary interest in the matter who is the applicant under 37 CFR 1.46. If the applicant is an applicant under 37 CFR 1.46 (assignee, person to whom the inventor is obligated to assign, or person who otherwise shows sufficient proprietary interest) together with one or more joint inventors, then the joint inventor or inventors who are also the applicant should be identified in this section. Clear		
☒ Assignee	Legal Representative under 35 U.S.C. 117	Joint Inventor
Person to whom the inventor is obligated to assign.		Person who shows sufficient proprietary interest
If applicant is the legal representative, indicate the authority to file the patent application, the inventor is:		
Name of the Deceased or Legally Incapacitated Inventor:		
If the Applicant is an Organization check here. ☒		
Organization Name	Turtl Surf & Immerse Limited	
Mailing Address Information For Applicant:		
Address 1	22 – 25 Farringdon Street	
Address 2		
City	London	State/Province
Country	UK	Postal Code
Phone Number		Fax Number
Email Address		
Additional Applicant Data may be generated within this form by selecting the Add button. Add		

Assignee Information including Non-Applicant Assignee Information:

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

Application Data Sheet 37 CFR 1.76		Attorney Docket Number	56000-701.301
		Application Number	
Title of Invention	METHODS AND SYSTEMS FOR INTERACTIVE CONTENT CREATION		

Assignee	1			
Complete this section if assignee information, including non-applicant assignee information, is desired to be included on the patent application publication. An assignee-applicant identified in the "Applicant Information" section will appear on the patent application publication as an applicant. For an assignee-applicant, complete this section only if identification as an assignee is also desired on the patent application publication.				
				Remove
If the Assignee or Non-Applicant Assignee is an Organization check here.				☐
Prefix	Given Name	Middle Name	Family Name	Suffix
Mailing Address Information For Assignee including Non-Applicant Assignee:				
Address 1				
Address 2				
City		State/Province		
Country ⁱ		Postal Code		
Phone Number		Fax Number		
Email Address				
Additional Assignee or Non-Applicant Assignee Data may be generated within this form by selecting the Add button.				Add

Signature:

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

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

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

Signature	/Shuaimin Liu/		Date (YYYY-MM-DD)	2021-10-18
First Name	Shuaimin	Last Name	Liu	Registration Number
				L1361
Additional Signature may be generated within this form by selecting the Add button.				Add

Application Data Sheet 37 CFR 1.76		Attorney Docket Number	56000-701.301
		Application Number	
Title of Invention	METHODS AND SYSTEMS FOR INTERACTIVE CONTENT CREATION		

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- 2 A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.
- 3 A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.
- 4 A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).
- 5 A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent 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.

PATENT APPLICATION

METHODS AND SYSTEMS FOR INTERACTIVE CONTENT CREATION

Inventor: Nicholas Kingsley Mason
Citizen of United Kingdom, Residing at
20 Church Street, St Albans, AL3 5NQ

Assignee: Turtl Surf & Immerse Limited
22 – 25 Farringdon Street
London, England, EC4A 4AB



Wilson Sonsini Goodrich & Rosati
PROFESSIONAL CORPORATION

650 Page Mill Road
Palo Alto, CA 94304
(650) 493-9300 (Main)
(650) 493-6811 (Facsimile)

Filed Electronically on: October 18, 2021

METHODS AND SYSTEMS FOR INTERACTIVE CONTENT CREATION

CROSS-REFERENCE TO RELATED APPLICATIONS

[0001] This application is a continuation of U.S. Application No. 17/347,899, filed June 15, 2021, which claims the priority and benefit of U.S. Provisional Application No. 63/048,512 filed on July 6, 2020, the entire contents of which is incorporated herein by reference.

BACKGROUND

[0002] Enterprises use documents to communicate with internal and external customers as well as to regulate and control process flows. Users can interact with documents through the course of business. For example, customer service representatives (CSRs) interact with correspondence systems to create customized letters, insurance agents customize group policies, employees fill out forms for HR processes, and sales people create tailored proposals. Current content creation systems and methods may face the challenge of providing highly personalized content specific to a reader or a process without going through a time-consuming creation process. Therefore, a need exists for an interactive content creation system or method with improved personalization capability and efficiency.

SUMMARY

[0003] The present disclosure provides methods and systems for creating interactive content with improved efficiency and personalization capability. In particular, methods and systems of the present disclosure may provide automation and modular features allowing for creation of personalized content (e.g., report, brochures, digital magazines, product guides, sales playbooks, sales proposals, whitepapers, newsletters, company handbooks, annual reports, etc.) with reduced time and improved personalization. In some cases, a document assembly can be generated on the fly in response to a personalization request by pulling modular content items from different documents such that only relevant content is presented to a customer/reader. Additionally, the presentation format or style of rendering a given content can be independently modified at runtime thereby allowing for improved flexibility for providing a personalized content. Moreover, the provided system provides analytics features for tracking reader's interaction with the content and extracting insight through an integrated platform in a convenient manner. Such insight can be utilized for customizing future documents or contents.

[0004] In an aspect of the present disclosure, a system is provided for automatically assembling an interactive document. The system comprises: a server in communication with a plurality of user devices over a network, wherein the server comprises: a memory for storing a set of software instructions, and one or more processors configured to execute the set of software instructions to: (a) embed a first set of rules into a first modular item of a first document; (b) receive one or more parameters for personalizing the first document; (c) pull a second modular item from a second document based at least in part on a value of the one or more parameters and the first set of rules; and (e) assemble the second modular item with the first document to generate a derivative document.

[0005] In some embodiments, the first modular item is stored in a structured data that defines the first set of rules. In some embodiments, the first set of rules define a link between the first modular item and another document or a rule for assembling the first modular item into a derivative document.

[0006] In some embodiments, the value of the one or more parameters is specified by a user via a user interface. In some cases, the user interface displays one or more personalization fields that are automatically generated based on the first set of rules. For instances, at least one of the one or more personalization fields is generated based on a second set of rules associated with the second modular item. In some instances, the one or more processors are further configured to: upon receiving an input in a given personalization field, display at least a portion of the content from the first document that is related to the given personalization field.

[0007] In some embodiments, the value of the one or more parameters is specified by a user in a text file. In some embodiments, the first set of rules includes a mapping relationship that maps the first modular item to a style for rendering the first modular item. In some cases, the derivative document is displayed to a reader using the mapped style. For example, the server is configured to collect data about the reader's interaction with the derivative document to extract insight data.

[0008] In some embodiments, the one or more processors are configured to further receive an instruction for personalizing the first modular item or the second modular item. In some embodiments, the one or more processors are configured to further store the one or more parameters and a reference to the first document for updating the derivative document. In some cases, the one or more processors are configured to further convert the derivative document into a master document by storing the one or more parameters as a set of rules associated with the derivative document.

[0009] In another aspect, a system is provided for personalizing an interactive document. The system comprises: (a) a first component configured to create one or more modular items of a document, wherein at least one modular item is associated with a set of rules defining a link between the at least one modular item and another document or a rule for assembling the at least one modular item into a derivative document; and (b) a second component configured to: (i) receive an instruction for personalizing a given document; (ii) assemble a plurality of modular items to generate a derivative document of the given document, wherein the plurality of modular items are pulled from the given document and at least another document based at least in part on a set of rules associated with at least one modular item of the given document; and (iii) render the derivative document using a style associated with the given document.

[0010] In some embodiments, the first component comprises a first user interface configured to receive a user input to generate the first set of rules. In some cases, the first user interface displays a plurality of fields for defining the first set of rules. In some embodiments, the first component comprises a second user interface configured to receive user input to customize the one or more modular items. In some embodiments, at least one of the one or more modular items is automatically updated based on an input information obtained via an application programming interface (API).

[0011] In some embodiments, the set of rules associated with the at least one modular item of the given document is pre-defined and embedded with the at least one item. In some cases, the at least one item is stored in a structured data that defines the set of rules. In some embodiments, the set of rules associated with the at least one item of the given document includes a mapping relationship that maps the at least one item to the style. In some embodiments, the second component comprises a user interface for receiving the instruction for personalizing the given document. In some cases, the user interface displays one or more personalization fields based on the set of rules associated with the at least one item of the given document. For example, the user instruction comprises a value provided to the one or more personalization fields.

[0012] Additional aspects and advantages of the present disclosure will become readily apparent to those skilled in this art from the following detailed description, wherein only illustrative embodiments of the present disclosure are shown and described. As will be realized, the present disclosure is capable of other and different embodiments, and its several details are capable of modifications in various obvious respects, all without departing from the disclosure. Accordingly, the drawings and description are to be regarded as illustrative in nature, and not as restrictive.

INCORPORATION BY REFERENCE

[0013] All publications, patents, and patent applications mentioned in this specification are herein incorporated by reference to the same extent as if each individual publication, patent, or patent application was specifically and individually indicated to be incorporated by reference.

BRIEF DESCRIPTION OF THE DRAWINGS

[0014] The novel features of the invention are set forth with particularity in the appended claims. A better understanding of the features and advantages of the present invention will be obtained by reference to the following detailed description that sets forth illustrative embodiments, in which the principles of the invention are utilized, and the accompanying drawings (also “figure” and “FIG.” herein) of which:

[0015] FIG. 1 schematically shows a network or content creation and management platform in which the method and system for personalizing a content can be implemented;

[0016] FIG. 2 schematically shows a diagram of a content creation and management system, in accordance with various embodiment of the present disclosure;

[0017] FIG. 3 shows an example of a user interface (e.g., creator interface) for defining a set of assembly rules for a page of a document;

[0018] FIG. 4 illustrates examples of multiple documents that each document including at least one document page embedded with one or more assembly rules;

[0019] FIG. 5 shows an example of a user interface for personalizing a selected document, in accordance with some embodiments of the present disclosure;

[0020] FIG. 6 shows an exemplary document assembly;

[0021] FIG. 7 illustrates an example of a process of generating personalized, interactive content, in accordance with some embodiments described herein;

[0022] FIG. 8 shows an example of customizing a page via API.

[0023] FIGs. 9-11 shows an example of customizing a content item.

[0024] FIG. 12 shows an example of managing assembly rules for a group of content items.

[0025] FIG. 13 and FIG. 14 show an example of a user personalizing the document as a reader of the content.

[0026] **FIG. 15** shows an example of a user interface displaying live content when a user completes a personalization form.

[0027] **FIG. 16** and **FIG. 17** show an example of a source documents and the effect on the derivative documents.

[0028] **FIGs. 18-20** shows an example of updating a personalized document on the fly based on information from external data sources.

DETAILED DESCRIPTION

[0029] While various embodiments of the invention have been shown and described herein, it will be obvious to those skilled in the art that such embodiments are provided by way of example only. Numerous variations, changes, and substitutions may occur to those skilled in the art without departing from the invention. It should be understood that various alternatives to the embodiments of the invention described herein may be employed.

[0030] The present disclosure provides methods and systems for creating interactive content with improved efficiency and personalization capability. In particular, methods and systems of the present disclosure may provide automation and modular features allowing for creation of personalized content (e.g., report, brochures, digital magazines, product guides, sales playbooks, sales proposals, whitepapers, newsletters, company handbooks, annual reports, etc.) with reduced time and improved personalization.

[0031] Unlike conventional document processing systems where content is stored and managed as a document. The provided system may break a document into one or more modular content items each is associated with a set of assembly rules. In some cases, a document assembly can be generated on the fly in response to a personalization request by pulling modular content items from different documents such that only relevant content is presented to a customer/reader. Additionally, the presentation format or style of rendering a given content can be independently modified at runtime thereby allowing for improved flexibility for providing a personalized content. Moreover, the provided system provides analytics features for tracking reader's interaction with the content and extracting insight through an integrated platform in a convenient manner. Such insight can be utilized for customizing future documents or contents.

[0032] The interactive content may include a variety types of electronic documents such as report, brochures, digital magazines, case studies, product guides, sales playbooks, sales proposals, whitepapers, newsletters, company handbooks, annual reports, presentations, and various others that may be utilized in various other fields. The interactive content may be provided for a wide range of use cases. For instance, the interactive content may be a digital magazine including editorial layouts with video and reader polling to collect analytics about which topics that a reader may be interested about; a research report with interactive charts, video, and imagery that can identify which data sets and storylines are of interest to the audience; a product guide with dynamic guides on a product or service that can collect reader engagement data to deliver insights to sales; a sales playbook with messaging, product videos, templates and guides accessible from a single uniform resource location (URL) that can keep track of individuals engagement with the resources and various others.

[0033] As utilized herein, the term “document” and “electronic document” may encompass one or more types of content/documents as described above, one or more content items such as content pages (e.g., web pages), text pages, presentation slides, search results, emails, applications, IM messages, audio content or files, video content or files, online media files, other files, other data or applications that may reside on one or several (e.g., a network) of computer systems, or other definable concepts or content. A content item may be a page, a slide or elements within a page or slide (e.g., video, charts, etc.). In some cases, a document or content may include a plurality of pages or a plurality of modular content items. A page may include visible components, such as text, images, hyperlinks, a background, and/or invisible components, such as meta tags, ruleset for assembly or formatting instructions. The term “page” may encompass any types of computer files that are not necessarily encoded for viewing using a browser, e.g., text files, bit-maps, audio files, and so forth. In some cases, a document created by the provided system can be accessible from a uniform resource location (URL). For instance, a document may be a hypertext file or document that is encoded using a language such as Hypertext Markup Language (HTML) for viewing on a client computer using a browser application. Alternatively or in addition to, a document can be delivered or downloaded to a user device and can be interacted with offline using a desktop application. It should be appreciated that the same system and method may be applied to other forms of documents or electronic documents.

[0034] A user of the provided content creation and management system may be an individual, an entity (e.g., business, company, organization, *etc.*), a group of individuals that may be authors or content creators who create the core materials, new documents or new components of the interactive

content that can be further personalized. The users may include individuals such as personalizers (e.g., marketing managers, content managers, sales people, recruiters, marketers, *etc.*) who are customizing and personalizing the documents created by the authors in a pre-defined way. A user of the provided system or platform may also include individuals (e.g., analyzers) who may seek for and analyze the content performance analytics collected by the interactive content that is tailored to the customer. A user of the provided content creation and management system may also include administrators who manage the various workflow (e.g., content creation, content personalization) and various other functions of the platform.

[0035] The interactive content creation and personalization system may provide a dynamic document assembly feature permitting various content items (e.g., pages, slides, charts, texts, diagrams, videos, *etc.*) to be pulled from different documents are dynamically assembled as a new document. For example, three pages may be pulled from document A, five pages may be pulled from document B and two pages may be pulled from document C. Such pages are then assembled on the fly into a new resulting document D. Creating an interactive document in such a modular manner may allow for a highly customized/personalized document provided to a reader.

[0036] The modular content items may be automatically selected from one or more documents to be assembled into a personalized document assembly based on pre-determined assembly rules. In some cases, the assembly rules may define the conditions to meet in order to include a content item into a derivative/output document. The assembly rules may be embedded into the modular content items and may define the parameters/conditions to meet in order to display/select the associated content item or to assemble the associated content with other qualifying content. The personalized document assembly may be generated with minimal user input that specifies the personalization request parameters. For example, a user (e.g., marketing managers, content managers, sales people, recruiters, marketers, *etc.*) may not be required to possess content creation expertise and only the information about the personalization request (e.g., document size, geolocation, customer sector, *etc.*) or desired use application of the document may be provided by the user. In some cases, the personalized document assembly may also be referred to as derivative document which are utilized interchangeably throughout the specification. In some cases, the document that is used to generate the personalized document may be a master document or source document. Upon creation of the derivative document, a link or connection between the source document and the derivative document may be created. Details about the dynamic document assembly method and systems are described later herein.

[0037] In some cases, the content creation and management system may also provide a reader analytics capability that can be utilized to track, analyze and extract insight about how a reader interact with the personalized content. For example, the interactive document may be rendered with tracking features (e.g., web analytics tracker), or delivered with insight metrics, analytics, or interfaces capable of extracting intelligence and insight for a variety of applications. For instance, data may be collected indicative of user interaction with the document. In some cases, the interaction data may be analyzed to extract metrics and usage analytics measuring the degree to which slides/pages were provided or made available to and viewed by customers (e.g., the number of times a content item was pitched to customers), to extract performance metrics measuring the degree to which readers have engaged with (e.g., read, edited, shared, saved) the interactive content (e.g., the dwell time on an item, such as the amount of time that the content was displayed in a content viewer (e.g., web browser or other application), to extract impact analytics indicative of the content's impact on business metrics (e.g., average revenue per pitch of a content item that may be obtained from other systems, such as customer relationship management (CRM) systems, marketing automation systems, *etc.*), and various other analytics. Such analytics may be used to personalize a future interactive content/document.

[0038] In some cases, the provided systems may employ artificial intelligence techniques to analyze the reader interaction data to extract the intelligence and insight, or optimize assembly rules for assembling personalized/customized content or document. In some instances, the assembly rules may be initially defined by a user (e.g., author, content creator) and automatically updated or improved over time using a trained model based on newly collected analytics data. Alternatively or additionally, a trained model may guide and assist a user during the process of creating the assembly rules for a given content item.

[0039] Artificial intelligence, including machine learning algorithms, may be used to train a predictive model for extracting the usage analytics, performance analytics, impact analytics as described above, and/or assisting assembly rules creation and management, and various other functionalities as described above. A machine learning algorithm may be a neural network, for example. Examples of neural networks that may be used with embodiments herein may include a deep neural network, convolutional neural network (CNN), and recurrent neural network (RNN). In some cases, a machine learning algorithm trained model may be pre-trained and implemented on the provided content creation and management system, and the pre-trained model may undergo continual re-training that may involve continual tuning of the predictive model or a component of

the predictive model (e.g., classifier) to adapt to changes in the implementation environment over time (e.g., changes in the customer/user data, insight and analytics data, model performance, third-party data, *etc.*).

[0040] The term “labeled data” or “labeled dataset,” as used herein, generally refers to a paired dataset used for training a model using supervised learning. The labeled data may be generated by expert or using insight extracted from customer/reader feedback data. Alternatively, methods provided herein may utilize an un-paired training approach allowing a machine learning method to train and apply on existing datasets that may be available with an existing system.

[0041] Reference throughout this specification to “some embodiments,” or “an embodiment,” means that a particular feature, structure, or characteristic described in connection with the embodiment is included in at least one embodiment. Thus, the appearances of the phrase “in some embodiment,” or “in an embodiment,” in various places throughout this specification are not necessarily all referring to the same embodiment. Furthermore, the particular features, structures, or characteristics may be combined in any suitable manner in one or more embodiments.

[0042] As utilized herein, terms “component,” “system,” “interface,” “unit” and the like are intended to refer to a computer-related entity, hardware, software (e.g., in execution), and/or firmware. For example, a component can be a processor, a process running on a processor, an object, an executable, a program, a storage device, and/or a computer. By way of illustration, an application running on a server and the server can be a component. One or more components can reside within a process, and a component can be localized on one computer and/or distributed between two or more computers.

[0043] Further, these components can execute from various computer readable media having various data structures stored thereon. The components can communicate via local and/or remote processes such as in accordance with a signal having one or more data packets (e.g., data from one component interacting with another component in a local system, distributed system, and/or across a network, e.g., the Internet, a local area network, a wide area network, etc. with other systems via the signal).

[0044] As another example, a component can be an apparatus with specific functionality provided by mechanical parts operated by electric or electronic circuitry; the electric or electronic circuitry can be operated by a software application or a firmware application executed by one or more processors; the one or more processors can be internal or external to the apparatus and can execute at least a part of the software or firmware application. As yet another example, a component can be an

apparatus that provides specific functionality through electronic components without mechanical parts; the electronic components can include one or more processors therein to execute software and/or firmware that confer(s), at least in part, the functionality of the electronic components. In some cases, a component can emulate an electronic component via a virtual machine, e.g., within a cloud computing system.

[0045] Moreover, the word “exemplary” is used herein to mean serving as an example, instance, or illustration. Any aspect or design described herein as “exemplary” is not necessarily to be construed as preferred or advantageous over other aspects or designs. Rather, use of the word exemplary is intended to present concepts in a concrete fashion. As used in this application, the term “or” is intended to mean an inclusive “or” rather than an exclusive “or.” That is, unless specified otherwise, or clear from context, “X employs A or B” is intended to mean any of the natural inclusive permutations. That is, if X employs A; X employs B; or X employs both A and B, then “X employs A or B” is satisfied under any of the foregoing instances. In addition, the articles “a” and “an” as used in this application and the appended claims should generally be construed to mean “one or more” unless specified otherwise or clear from context to be directed to a singular form.

[0046] FIG. 1 schematically shows a network or content creation and management platform 100 in which the method and system for providing a personalized content can be implemented. A platform 100 may include one or more user devices 101-1, 101-2, 101-3, a server 120, a content creation and management system 121, one or more third-party systems 130, and a database 111, 123. Each of the components 101-1, 101-2, 101-3, 111, 123, 120, 130 may be operatively connected to one another via a network 110 or any type of communication link that allows transmission of data from one component to another.

[0047] The content creation and management system 121 may be configured to permit users (e.g., creators, personalizers, analyzers, administrators, *etc.*) to create content and content items, generate a set of rules associated with a content item, customize a document and manage various aspects of the platform. The content creation and management system 121 may include a plurality of functional components such as a content creation unit, a document assembly engine, a data management unit, interaction tracking features, analytics features, brand management features and the like. Details about the various functional components are described later herein.

[0048] In some cases, one or more personalization fields may be provided to a user 103-1 (e.g., personalizer) via a graphical user interface (GUI) on a user device 101-1, 101-3. For example, a user may select a parameter from a plurality of options for a personalization field to customize a

document that is to be delivered to a specific reader/customer. Details about the personalizer interface are described later herein. In some cases, a graphical user interface (GUI) may be rendered on a user device 101-2 for a user (e.g., content creator, author) to define one or more rules associated with a content item (e.g., page, slide). The one or more rules may include assembly rules that define when a content item should be included for display in a derivative document and/or rules that define how the content item is rendered/displayed (e.g., mapping to a brand style).

[0049] In some cases, the content creation and management system 121 may be configured to train one or more predictive models (e.g., natural language processing) for analyzing the reader interaction data transmitted from a customer/reader device. In some cases, the extracted insight and intelligence may be used for improving future documents personalization. For instance, a predictive model for assisting the assembly rules generation may be updated based on the extracted insight and intelligence.

[0050] The content creation and management system 121 may be configured to perform one or more operations consistent with those disclosed with respect to FIGs. 2-7. The content creation and management system 121 may be implemented anywhere within the platform, and/or outside of the platform 100. In some embodiments, the content creation and management system 121 may be implemented on the server 120. In other embodiments, a portion of the content creation and management system 121 may be implemented on the user device. Additionally, a portion of the content creation and management system 121 may be implemented on the third-party system. Alternatively or in addition to, a portion of the content creation and management system 121 may be implemented in one or more databases 111, 123. The content creation and management system 121 may be implemented using software, hardware, or a combination of software and hardware in one or more of the above-mentioned components within the platform. Details about the content creation and management system 121 are described later herein.

[0051] In some embodiments, a user (e.g., agent) 103-1, 103-2 may be associated with one or more user devices 101-1, 101-2, 101-3. A user may be an individual, an entity (e.g., business, company, organization, *etc.*), a group of individuals that may be authors or content creators who create the core materials, new documents or new components of the interactive content that can be further personalized. A user may be individuals such as personalizers (e.g., marketing managers, content managers, sales people, recruiters, marketers, *etc.*) who are customizing and personalizing the documents created by the authors in a pre-defined way. A user of the provided system or platform may also include individuals (e.g., analyzers) who may seek for and analyze the content performance

analytics collected by the interactive content that is tailored to the customer, and administers who manage the various workflow (e.g., content creation, content personalization) and various functions of the platform.

[0052] User device 101-1, 101-2, 101-3 may be a computing device configured to perform one or more operations consistent with the disclosed embodiments. Examples of user devices may include, but are not limited to, mobile devices, smartphones/cellphones, wearable device (e.g., smartwatches), tablets, personal digital assistants (PDAs), laptop or notebook computers, desktop computers, media content players, television sets, video gaming station/system, virtual reality systems, augmented reality systems, microphones, or any electronic device capable of analyzing, receiving (e.g., receiving user input in one or more fields in a form, receiving definition of rules associated with a page, *etc.*), providing or displaying certain types of data (e.g., system generated personalization parameter options, original document, derivative document, *etc.*) to a user. The user device may be a handheld object. The user device may be portable. The user device may be carried by a human user. In some cases, the user device may be located remotely from a human user, and the user can control the user device using wireless and/or wired communications. The user device can be any electronic device with a display.

[0053] User device 101-1, 101-2, 101-3 may include one or more processors that are capable of executing non-transitory computer readable media that may provide instructions for one or more operations consistent with the disclosed embodiments. The user device may include one or more memory storage devices comprising non-transitory computer readable media including code, logic, or instructions for performing the one or more operations. The user device may include software applications provided by the content creation and management system 121 that allow the user device to communicate with and transfer data between server 120, the content creation and management system 121, and/or database 111.

[0054] The user device 101-1, 101-2, 101-3 may include a communication unit, which may permit the communications with one or more other components in the platform 100. In some instances, the communication unit may include a single communication module, or multiple communication modules. In some instances, the user device may be capable of interacting with one or more components in the platform 100 using a single communication link or multiple different types of communication links.

[0055] User device 101-1, 101-2, 101-3 may include a display. The display may be a screen. The display may or may not be a touchscreen. The display may be a light-emitting diode (LED) screen,

OLED screen, liquid crystal display (LCD) screen, plasma screen, or any other type of screen. The display may be configured to show a user interface (UI) or a graphical user interface (GUI) rendered through an application (e.g., via an application programming interface (API) executed on the user device). The GUI may display, for example, an auto-populated form for customizing a selected document, a user interface for editing and defining a set of rules for a content item and user interface for creating content or interactive elements of a document (e.g., editable fields, videos, customer feedback survey, *etc.*). The user device may also be configured to display webpages and/or websites on the Internet. One or more of the webpages/websites may be hosted by server 120 and/or rendered by the content creation and management system 121.

[0056] In some cases, users may utilize the user devices to interact with the content creation and management system 121 by way of one or more software applications (i.e., client software) running on and/or accessed by the user devices, wherein the user devices and the content creation and management system 121 may form a client-server relationship. For example, the user devices may run dedicated mobile applications or software applications for viewing personalization form or options provided by the content creation and management system 121. The software applications for creating a document or content, customizing a document, and for rendering and delivering the content may be different applications. Alternatively or in addition, the client application may comprise different modes for a user to customize/edit a selected document, to view analytics associated with customers, to create original content, respectively. The client applications for a content creator (e.g., author) and a content personalizer may be different applications.

[0057] In some cases, the client software (i.e., software applications installed on the user devices 101-1, 101-2, 101-3) may be available either as downloadable software or mobile applications for various types of computer devices. Alternatively, the client software can be implemented in a combination of one or more programming languages and markup languages for execution by various web browsers. For example, the client software can be executed in web browsers that support JavaScript and HTML rendering, such as Chrome, Mozilla Firefox, Internet Explorer, Safari, and any other compatible web browsers. The various embodiments of client software applications may be compiled for various devices, across multiple platforms, and may be optimized for their respective native platforms.

[0058] In some cases, the provided platform may generate one or more graphical user interfaces (GUIs) for the content personalizer interface. The GUIs may be rendered on a display screen on a user device (e.g., a personalizer's device). A GUI is a type of interface that allows users to interact

with electronic devices through graphical icons and visual indicators such as secondary notation, as opposed to text-based interfaces, typed command labels or text navigation. The actions in a GUI are usually performed through direct manipulation of the graphical elements. In addition to computers, GUIs can be found in hand-held devices such as MP3 players, portable media players, gaming devices and smaller household, office and industry equipment. The GUIs may be provided in software, a software application, a mobile application, a web browser, or the like. The GUIs may be displayed on a user device (e.g., desktop computers, laptops or notebook computers, mobile devices (e.g., smart phones, cell phones, personal digital assistants (PDAs), and tablets), and wearable devices (e.g., smartwatches, *etc.*).

[0059] In some cases, third-party user interfaces or APIs may be integrated to the application and integrated in the front-end user interface (e.g., within the GUI). The third-party user interfaces may be hosted by a third-party server or entity 130. In some cases, APIs or third-party resources (e.g., customer CRM, customer analytics entity, social media, *etc.*) may be used to provide a content item to be included in a document, and/or reader analytics. In some cases, the platform 100 may utilize API requests to interact with various external assets (e.g., media source) to aggregate those content into the document.

[0060] User devices may be associated with one or more users. In some embodiments, a user may be associated with a unique user device. Alternatively, a user may be associated with a plurality of user devices. A user may be registered with the platform. In some cases, for a registered user, user profile data may be stored in a database (e.g., database 123) along with a user ID uniquely associated with the user. The user profile (e.g., personalizer profile) data may include, for example, user names, user ID, identity, business field, contact information, historical data, and various others as described elsewhere herein.

[0061] A server 120 may access and execute the content creation and management system 121 to perform one or more processes consistent with the disclosed embodiments. In certain configurations, the content creation and management system may be software stored in memory accessible by a server (e.g., in memory local to the server or remote memory accessible over a communication link, such as the network). Thus, in certain aspects, the content creation and management system(s) may be implemented as one or more computers, as software stored on a memory device accessible by the server, or a combination thereof. For example, one content creation and management system(s) may be a computer executing one or more algorithms for pre-training a predictive model, another content creation and management system may be software that, when executed by a server, processing the

reader analytics data using the trained predictive model. As another example, one content creation and management system(s) may be a computer executing one or more algorithms for managing brand styles for rendering a customized document using a mapped brand style whereas another content creation and management system(s) may be a computer executing one or more algorithms for creating and/or personalizing a document.

[0062] The various functions performed by the client terminal and/or the content creation and management system such as content creation, generating ruleset for a content item (e.g., page), generating a personalization form, assembling a document with modular content items upon a personalization request, training a predictive model, executing a trained model, implementing pre-determined ruleset for generating personalized document and the like may be implemented in software, hardware, firmware, embedded hardware, standalone hardware, application specific-hardware, or any combination of these. The content creation and management system, and techniques described herein may be realized in digital electronic circuitry, integrated circuitry, specially designed ASICs (application specific integrated circuits), computer hardware, firmware, software, and/or combinations thereof. These systems, devices, and techniques may include implementation in one or more computer programs that are executable and/or interpretable on a programmable system including at least one programmable processor, which may be special or general purpose, coupled to receive data and instructions from, and to transmit data and instructions to, a storage system, at least one input device, and at least one output device. These computer programs (also known as programs, software, software applications, or code) may include machine instructions for a programmable processor, and may be implemented in a high-level procedural and/or object-oriented programming language, and/or in assembly/machine language. As used herein, the terms “machine-readable medium” and “computer-readable medium” refer to any computer program product, apparatus, and/or device (such as magnetic discs, optical disks, memory, or Programmable Logic Devices (PLDs)) used to provide machine instructions and/or data to a programmable processor.

[0063] The third-party system 130 can be any entities that provides content services to be included into the personalized document via the platform 100. The third-party entity may provide services in a wide range such as customer CRM, external content assets (e.g., social media, online resource), public or private resources and various others. The third-party system 130 may be in communication with the content creation and management system via APIs such that the third-party content library,

service information, brand style availability information and the like can be communicated. In some cases, reader analytics can also be provided to the third-party system upon a request.

[0064] In some cases, the server 120 may also be configured to store, search, retrieve, and/or analyze data and information stored in one or more of the databases. The data and information may include reader interaction data collected from the user/customer device as well as brand style data, mapping relationship for brand style management, content or document data, ruleset associated with a content item, data about a predictive model (e.g., parameters, model architecture, training dataset, performance metrics, threshold, *etc.*), data generated by a predictive model such as personalization options or extracted insight, reader feedback survey, and the like. While FIG. 1 illustrates the server as a single server, in some embodiments, multiple devices may implement the functionality associated with a server.

[0065] A server may include a web server, an enterprise server, or any other type of computer server, and can be computer programmed to accept requests (e.g., HTTP, or other protocols that can initiate data transmission) from a computing device (e.g., user device and/or meeting capturing device) and to serve the computing device with requested data. In addition, a server can be a broadcasting facility, such as free-to-air, cable, satellite, and other broadcasting facility, for distributing data. A server may also be a server in a data network (e.g., a cloud computing network).

[0066] A server may include known computing components, such as one or more processors, one or more memory devices storing software instructions executed by the processor(s), and data. A server can have one or more processors and at least one memory for storing program instructions. The processor(s) can be a single or multiple microprocessors, field programmable gate arrays (FPGAs), or digital signal processors (DSPs) capable of executing particular sets of instructions. Computer-readable instructions can be stored on a tangible non-transitory computer-readable medium, such as a hard disk, a CD-ROM (compact disk-read only memory), and MO (magneto-optical), a DVD-ROM (digital versatile disk-read only memory), a DVD RAM (digital versatile disk-random access memory), or a semiconductor memory. Alternatively, the methods can be implemented in hardware components or combinations of hardware and software such as, for example, ASICs, special purpose computers, or general purpose computers.

[0067] Network 110 may be a network that is configured to provide communication between the various components illustrated in FIG. 1. The network may be implemented, in some embodiments, as one or more networks that connect devices and/or components in the network layout for allowing communication between them. For example, user device 101-1, 101-2, 101-3 third-party system 130,

server 120, content creation and management system 121, and database 111, 123 may be in operable communication with one another over network 110. Direct communications may be provided between two or more of the above components. The direct communications may occur without requiring any intermediary device or network. Indirect communications may be provided between two or more of the above components. The indirect communications may occur with aid of one or more intermediary device or network. For instance, indirect communications may utilize a telecommunications network. Indirect communications may be performed with aid of one or more router, communication tower, satellite, or any other intermediary device or network. Examples of types of communications may include, but are not limited to: communications via the Internet, Local Area Networks (LANs), Wide Area Networks (WANs), Bluetooth, Near Field Communication (NFC) technologies, networks based on mobile data protocols such as General Packet Radio Services (GPRS), GSM, Enhanced Data GSM Environment (EDGE), 3G, 4G, 5G or Long Term Evolution (LTE) protocols, Infra-Red (IR) communication technologies, and/or Wi-Fi, and may be wireless, wired, or a combination thereof. In some embodiments, the network may be implemented using cell and/or pager networks, satellite, licensed radio, or a combination of licensed and unlicensed radio. The network may be wireless, wired, or a combination thereof.

[0068] User device 101-1, 101-2, 101-3, third-party system 130, server 120, or content creation and management system 121, may be connected or interconnected to one or more database 111, 123. The databases may be one or more memory devices configured to store data. Additionally, the databases may also, in some embodiments, be implemented as a computer system with a storage device. In one aspect, the databases may be used by components of the network layout to perform one or more operations consistent with the disclosed embodiments. One or more local databases, and cloud databases of the platform may utilize any suitable database techniques. For instance, structured query language (SQL) or “NoSQL” database may be utilized for storing the content or document data, ruleset data, brand styles, mapping relationships, customer/reader analytics data, historical data, predictive model, training datasets, or algorithms. Some of the databases may be implemented using various standard data-structures, such as an array, hash, (linked) list, struct, structured text file (e.g., XML), table, JavaScript Object Notation (JSON), NOSQL and/or the like. Such data-structures may be stored in memory and/or in (structured) files. In another alternative, an object-oriented database may be used. Object databases can include a number of object collections that are grouped and/or linked together by common attributes; they may be related to other object collections by some common attributes. Object-oriented databases perform similarly to relational databases with the

exception that objects are not just pieces of data but may have other types of functionality encapsulated within a given object. In some embodiments, the database may include a graph database that uses graph structures for semantic queries with nodes, edges and properties to represent and store data. If the database of the present invention is implemented as a data-structure, the use of the database of the present invention may be integrated into another component such as the component of the present invention. Also, the database may be implemented as a mix of data structures, objects, and relational structures. Databases may be consolidated and/or distributed in variations through standard data processing techniques. Portions of databases, e.g., tables, may be exported and/or imported and thus decentralized and/or integrated.

[0069] In some embodiments, the platform 100 may construct the database for fast and efficient data retrieval, query and delivery. For example, the content creation and management system 121 may provide customized algorithms to extract, transform, and load (ETL) the data. In some embodiments, the content creation and management system 121 may construct the databases using proprietary database architecture or data structures to provide an efficient database model that is adapted to large scale databases, is easily scalable, is efficient in query and data retrieval, or has reduced memory requirements in comparison to using other data structures. The document or content items may be stored in a pre-defined structured data format that are described later herein.

[0070] In some embodiments, the one or more database systems 123, 111, which may be configured for storing or retrieving relevant data. Relevant data may comprise reader interaction data collected from the user/customer device, insight or intelligence extracted from the interaction data, brand style data for rendering the content, mapping relationship for brand style management, content or document data, ruleset associated with a content item, data about a predictive model (e.g., parameters, model architecture, training dataset, performance metrics, threshold, *etc.*), data generated by a predictive model such as personalization options or extracted insight, reader feedback survey, and various other data as described elsewhere herein. In some cases, the content creation and management system 121 may source data or otherwise communicate (e.g., via the one or more networks 110) with one or more external systems or data sources 111, such as one or more brand style database, media sources, analytics services, customer management services or databases. In some instances, the content creation and management system 121 may retrieve data from the database systems 111, 123 which are in communication with the one or more external systems (e.g., external media assets, *etc.*) or third-party systems 130 (e.g., third-party business entities, enterprise management software, customer management platforms, *etc.*).

[0071] In some cases, the database may store data related to machine learning-based models. For example, the database may store data about a trained personalized predictive model (e.g., parameters, hyper-parameters, model architecture, performance metrics, threshold, rules, *etc.*), data generated by a personalized predictive model (e.g., intermediary results, output of a model, latent features, input and output of a component of the model system, *etc.*), training datasets (e.g., labeled data, insight provided by expert, user feedback data, *etc.*), predictive models, algorithms, and the like. The database can store algorithms or ruleset utilized by one or more methods disclosed herein. For instance, pre-determined ruleset to be used in combination with machine learning trained models for generating a system-recommended assembly rules or personalized document may be stored in the database. In certain embodiments, one or more of the databases may be co-located with the server, may be co-located with one another on the network, or may be located separately from other devices. One of ordinary skill will recognize that the disclosed embodiments are not limited to the configuration and/or arrangement of the database(s).

[0072] In some cases, data stored in the databases or external databases can be utilized or accessed by a variety of applications through application programming interfaces (APIs). Access to the database may be authorized at per API level, per data level (e.g., type of data), per application level or according to other authorization policies.

[0073] Although particular computing devices are illustrated and networks described, it is to be appreciated and understood that other computing devices and networks can be utilized without departing from the spirit and scope of the embodiments described herein. In addition, one or more components of the network layout may be interconnected in a variety of ways, and may in some embodiments be directly connected to, co-located with, or remote from one another, as one of ordinary skill will appreciate.

[0074] Various aspects of the present disclosure may be applied to any of the particular applications set forth below or for any other types of applications or systems. Systems or methods of the present disclosure may be employed in a standalone manner, or as part of a package.

[0075] **FIG. 2** schematically shows a diagram of a content creation and management system 200, in accordance with various embodiment of the present disclosure. In some embodiments, the system 200 may comprise a content creation unit 201, a document assembly engine 203, and a data management unit 205. The system may optionally comprise an author interface 210 and a personalizer interface 220. Alternatively, the author interface or personalizer interface may be a separate component that is operably coupled to the system 200. The content creation and

management system 200 may be the same as the content creation and management system as described in FIG. 1.

[0076] In some embodiments, the content creation unit 201 may be configured to assist individuals such as authors in creating content or document. The content or document may be stored as structured data such as JavaScript object notation (JSON) data. In some embodiments, the content may be stored in a pre-defined document schema that contains the data and metadata needed to render each document. For example, the pre-define document schema may beneficially store a content item (e.g., pages, slides) of a document in a modular fashion. The document or content may be created and stored in a database that may be implemented using various standard data-structures, such as an array, hash, (linked) list, struct, structured text file (e.g., XML), table, JSON, NOSQL and/or the like.

[0077] A content item such as a page, a slide, a video, an image, a chart, a text file of a document may be stored with one or more different representations (e.g., mobile rendering, desktop rendering, rendering in a browser, rendering in a desktop application, *etc.*). This may beneficially allow a content item or document being selected to be assembled with other content items to form a derivative document and the derivative document is rendered in the one or more different representations upon a request.

[0078] In some cases, a content item or a document may be stored in the structured data format with a set of rules to control how it is displayed. The set of rules may include, for example, Page Types and other Types, theme brand, styles and various others for determining how the content item is presented. For example, a Page Type A may define displaying a blue box on the right-hand side of the page with white text. One or more content items (e.g., pages) created by the system may be mapped to one or more brand themes or Page Types for rendering the content. In some embodiments of the system, the content may be stored in a content database and the theme or style branding information may be stored in a separate database, and a mapping relationship may be established to connect a content with one or more brand styles.

[0079] A style or theme branding of a given document or a set of documents can be changed or updated on the fly. For example, a set of documents are mapped to a brand, and upon a brand change, a mapping from the previous brand to a new brand may be established, and the new brand may be propagated through the set of documents instantly. In some cases, the mapping relationship may also define that when a brand is not available, the next brand should be used for displaying the content item. For instance, a mapping relationship may define that a content item is displayed using

Page Type A and when Page Type A does not exist, the content item will be displayed using Page Type B, C or D under certain conditions.

[0080] In some cases, the content creation unit 201 may include a mapping engine that may be called at runtime for rendering the content using the current mapped brand style and/or using a presentation format selected based on the rendering environment. In some instances, after selection of a content item to be assembled to a personalized document, a mapping engine is called to retrieve the mapped brand theme or style for rendering the content item.

[0081] A content item such as a page, a slide, a video, an image, a chart, a text file of a document may be associated with one or more assembly rules. The one or more assembly rules may define criteria for selecting a content item or displaying a content item. The one or more assembly rules may be related to various aspects for selecting a content item for display such as subject matter, financial data, performance data, geographic origin, identity of owner, identity of creator, and/or other information associated with the content (e.g., document size) or the use application (e.g., customer segment). The one or more assembly rules may be stored with the content item (e.g., page) in the structured data. Alternatively or in addition to, a rule ID may be stored with content that maps the content item to a set of rules stored in a ruleset data object (e.g., table).

[0082] The assembly rules can be defined by a user (e.g., author, creator) via a user interface. **FIG. 3** shows an example of a user interface (e.g., creator interface) 300 for defining the assembly rules for a page of a document. A content creator may define the rules for hiding (e.g., not selecting) or displaying (e.g., selecting) a page. As illustrated in FIG. 3, the rules may specify a set of conditions such as geographical location (e.g., state), and revenue to meet in order to display/select the respective page.

[0083] The user interface 300 may permit a user to edit the set of rules by adding, deleting a rule, modifying the value of a rule, and/or logical relationships between rules. For instance, a user may add a new rule and specify the logical relationship among the multiple rules via the user interface. For example, a user may be provided with logical relationship options (e.g., AND, OR) in the user interface 300 to select for adding a rule. A user may be allowed to define a rule with options (e.g., state) provided by the system. Alternatively or in addition to, the user interface 300 may allow a user to define rules in addition to the system provided options. For example, a user may be allowed to define a rule by a direct input in a text field (e.g., revenue range).

[0084] The logical relationship options, rule options and values can be provided in any suitable manner such that a user may set the assembly rules by interacting with the user interface. For example, the rule options can be provided via a menu (e.g., dropdown menu), via a text field (e.g., direct text input), via selectable table and other user interface features. In some cases, upon receiving the user input indicative of an update of the assembly rules, the rules may be automatically updated in the data structure of the associated content item (e.g., slide, page).

[0085] In some cases, the system may allow users to set up the assembly rules in a batch fashion. For example, as shown in **FIG. 12**, when the page rules for Pages A, B and C are identical (Show if sector = tech), instead of setting up the rule for each page individually 1200, a user may group the multiple pages as shown in 1210 and manage the rules for the group (e.g., setting a single rule for the group which is applied to all the pages in the group). This beneficially improves the efficiency for managing/setting assembly rules.

[0086] Alternatively or in addition to, the assembly rules may be automatically provided or updated by the system using a machine learning algorithm trained model. In some cases, the rule options may be automatically generated based on historical data for user to select. In some cases, an assembly rule may be automatically updated based on the collected analytics without user interaction. The machine learning algorithm can be any type of machine learning network such as a neural network. Examples of neural networks include a deep neural network, a convolutional neural network (CNN), and a recurrent neural network (RNN). The machine learning algorithm may comprise one or more of the following: a support vector machine (SVM), a naïve Bayes classification, a linear regression model, a quantile regression model, a logistic regression model, a random forest, a neural network, CNN, RNN, a gradient-boosted classifier or regressor, or another supervised or unsupervised machine learning algorithm (e.g., generative adversarial network (GAN), Cycle-GAN, *etc.*).

[0087] In some cases, the content creation unit 201 also allows users to personalize a content item (e.g., pages, slides). For example, a user may add a customer name, changing a logo, hiding a block within a page. In some cases, the pages can be customized on the fly automatically according to the information provided by the seller, so that the buyer's name, logo and website homepage, custom value propositions and the like are included at various places in the document.

[0088] In some cases, the input information may automatically trigger the updates such as via a third-party (e.g., customer) application programming interface (API). APIs or third-party resources (e.g., customer CRM, customer analytics entity, social media, *etc.*) may provide input information to

update or customize a content item in a document. In some cases, the platform may utilize API requests to interact with various external assets (e.g., media source) to aggregate those content into the document.

[0089] FIG. 8 shows an example of customizing a page via API. In the illustrated example, a user may modify or customize a base page 800 via the user interface of the content creation unit. A user may modify any customizable element within a page. For example, the base page 800 may include one or more customizable elements – a %name% field and a %logo% field. In some cases, a user may modify a selected customizable element by providing user input (e.g., values) on the user interface 810. For example, the user may directly input values for the customizable elements “Name” field and “Company domain” in the form 810. Alternatively or additionally, the input information (e.g., values) may be provided automatically by a third-party system or database via the API connection. For example, the name or the company domain may be automatically obtained from a third-party source (e.g., content library, customer CRM, customer analytics entity, social media, *etc.*) via the API connection. Upon receiving the input information, the content creation unit may automatically populate the output page 820 based on the input values, creating a personalized version of the page which can now be sent/displayed to the user.

[0090] In some embodiments, in addition to modifying a customizable element within a page, the content creation unit may allow users to include or exclude blocks of content within a page. This beneficially allows users to customize the display or appearance of an element. FIGs. 9-11 shows another example of customizing a content item. In the example illustrated in FIG. 9, the base page 900 may comprise one or more elements with display/appearance parameters. The display or appearance parameters, for example, “show and populated if a %problems% value is provided” for Text Block A, may be pre-determined for the base page. In some cases, the display/appearance parameters may be set up by a user of the content creation and management system. In some cases, the display/appearance parameters may define the display of a single element or interaction between the display of multiple elements. In the illustrated example, the display or appearance parameters for Text Block B is “show if %specialisms% is selected,” for Text Block C is “always be shown” and for Background Image is “show if Text Blocks A and B are not shown.”

[0091] In the first example 1010 illustrated in FIG. 10, when a user provides a value for Text Box A (e.g., providing a value for %problems%) and selects “specialism” (e.g., ticks %specialisms%) via the user interface (e.g., form), the output page 1110 may be populated and may show Text Block A, Text Blocks B and C, and not show Background Image (shown in FIG. 11). In the second example

1020 illustrated in FIG. 10, when a user does not provide a value for %problems% and not select %specialisms%, the output page 1120 may be populated as shown in FIG. 11. The output page 1120 may hide Text Blocks A and B, and may show the Background Image. In this scenario, the Background Image automatically fills the blank space and completes the layout when Text Blocks A and B are hidden. This beneficially provides automatic layouts design at the page level that can automatically adapt to complex layout requirement.

[0092] Referring back to FIG. 2, the document assembly engine 203 may be configured to select the documents stored in the content database 230. The document assembly engine may comprise a selection module configured to select modular content items from one or more different documents to generate a derivative document. In some cases, the content items may be selected in response to a personalization request that includes information about one or more aspects of the desired document/content. For instance, the information may be related to the expected customer segmentation/reader of the document, size of the document, location, business purpose, field, filetype and various others. Upon receiving the personalization request, the relevant content items may be automatically selected across multiple documents stored in the content database based on the assembly rules associated with each content items (e.g., subject matter, financial data, performance data, geographic origin, identity of owner, identity of creator, document size, etc.) and generate a new personalized document or derivative document.

[0093] FIGs. 4-6 show an example of assembling a document upon a personalization request. As illustrated in **FIG. 4**, documents A, B, C may each include a plurality of content items such as document pages A1, A2, A3, A4 for document A, document pages B1, B2, B3, B4, B5 contained in document B and documents pages C1, C2, C3, C4, C5 contained in document C. In some cases, at least one content item of a document may be associated with assembly rules as described above. For instance, page A1 has embedded rule ‘if country = UK’ that when the condition is met (i.e., the personalization request indicates country=UK) page A1 will be selected or displayed. It should be noted that the example is for illustration purpose only. For example, a ruleset can be associated with a content item via a mapping relationship (e.g., specified by rule ID and content ID) or be directly stored with the content data structure.

[0094] In some cases, a content item can be linked with another content items from the same or other documents. In some cases, a content item can be linked to another document. For example, document page C3 is an embedded version of document A and page C5 is an embedded version of document B. In such case, document page C3 or C5 may be automatically updated when a

change/update is made to respective document A or document B. As an example, document A may be a bank of case studies that may be automatically inserted into document C (when the assembly condition is met) that may be a report, proposal or pitch document. Upon determining the assembly rule of page C3 is met (e.g., sector=Tech), the document pages in document A may be inserted as page C3 and displayed in document C. In some cases, all of the pages of document A are displayed as page C3. Alternatively, a subset of pages of document A may be displayed according to the assembly rules associated with the pages in document A.

[0095] In some cases, the document A, B and C may be referred to as master document or source document and the assembled document such as shown in FIG. 6 may be referred to as derivative document or personalized document. A master document may have assembly rules embedded with the document. Upon creation of the derivative document, the personalization parameters (e.g., fields in the personalization form) that were provided during the personalization process and a reference to the source document may be stored in the system as a link or connection to the source document(s). Every time when the personalized document is requested or accessed by a reader, the source document may be loaded and the stored link may be used to dynamically apply changes from the source documents. This beneficially allows updating the derivative documents on the fly.

[0096] **FIG. 16** and **FIG. 17** show an example of updating the source documents and the effect on the derivative documents. The updates from the source documents may be automatically applied to the derivative documents via the stored connection. A reader can access the updated document such as a browser directly.

[0097] The personalized document can be updated based on the personalization parameters (via the personalization form), batch uploaded data (e.g., .csv file), third-party information (e.g., via API), a combination of any of the above, and/or others as described elsewhere herein. **FIGs. 18-20** shows an example of updating the personalized document on the fly based on information from external data sources. **FIG. 18** schematically shows updating personalized documents by making API calls. For example, a user in financial sector may have personalized documents 1807 each of which is about a specific stock (e.g. current share price, percentage change etc.). Such personalized documents may be automatically updated daily (or upon changes) based on the information (e.g., new price, percentage change and the like) from a third party software (e.g., stock tracker software) or external data sources 1801 by making an API call 1803 to the system (e.g., personalization engine 1805) to update the relevant information across the personalized documents.

[0098] As shown in **FIG. 19**, the personalized document can be updated based on the personalization input data including personalization parameters (via the personalization form) 1901, batch uploaded data (e.g., .csv file) 1905, and third-party information (e.g., via API) 1903 or other suitable input data. The assembly engine or rules engine 1907 may generate the personalized document 1909 as described elsewhere herein. Whenever there is an update in the input data (e.g., a field update in the personalization form, external data sources, new uploaded data.csv), the personalized document 2001 may be updated automatically as shown in **FIG. 20**.

[0099] In some cases, the system may be capable of converting a personalized document into a master document. The system may break the connection between the personalized document and its original master document such that updates to the original master document may not affect the personalized document whereas the converted personalized document can be fully customized and used for creating further derivative versions or documents. During conversion, the system may run the personalization fields through the assembly engine and store the personalization fields in the database as assembly rules associated with a new master document. The stored fields from the personalization step may be “hardcoded” into the new master document as assembly rules (e.g., embedded with the master document) which can then be edited and personalized in a manner similar to other master documents.

[0100] In some embodiments, the system may allow users to personalize the document based on live rules. The live rules may be based on live information. For example, the live rules may define the personalized document to be assembled or personalized based on the weather at the reader’s location, time of day and the like.

[0101] The personalization request may be provided by a user (e.g., personalizer) who are personalizing or customizing a document. In some cases, the document assembly engine may provide a user interface (e.g., personalizer interface) for a user to provide input about personalization a selected document. **FIG. 5** shows an example of a user interface for personalizing a selected document.

[0102] In some cases, the user interface (e.g., personalizer interface) may automatically populate one or more fields corresponding to one or more personalization parameters for a user to personalize a selected document (e.g., document C). As shown in the example, a form 500 may be automatically populated with one or more parameters fields. The personalization parameter field may be auto-populated based on the assembly rules associated with the content items of document C. The assembly rules may be used to identify parameters fields that require user input. For instance, the

one or more parameter fields may include ‘sector’ embedded in page C2 and C3, ‘if customer’ embedded in page C4 and ‘size’ embedded in page C5. In the case when a page of the document is linked to another document/page, a composite parameter field based on the rule (e.g., country) associated with the linked document or page (e.g., document A) may also be provided on the user interface.

[0103] A user may specify a value from a set of options for one or more of the parameter fields for personalizing the selected document. The personalization options can be provided in any suitable manner such as via a menu (e.g., dropdown menu), via a text field (e.g., direct text input), a text area including multiple text fields, a checkbox (e.g., list of tick-box options), via selectable table and other user interface features.

[0104] In some cases, a personalization form may be associated with one or more master documents or starting documents. For example, different industries may have different master documents. In some cases, upon a user selecting an industry to begin with, the corresponding personalization form may be displayed for the user to fill in the fields.

[0105] In some cases, at least a portion of the parameters or all of the parameters may be automatically determined without user intervention or user input. For example, at least a portion of the fields may be automatically filled via an API connection to the customer’s CRM. Such connection may be established that permits the form to be completed using data retrieved from the relevant sources (e.g., third-party database, CRM) in response to a personalization request. For example, a personalizer may only need to specify the relevant contact record from their CRM and the form may be auto-populated based on the information retrieved from the CRM. In some cases, the information inputted by a user for various purposes may be processed and used to automatically filled-in a field. For example, user’s single-sign on information (e.g., email address) may be processed to extract the domain, and the domain information may be used to identify an organization associated with the user, then automatically fill in the organization field in the form.

[0106] In some cases, one or more values in the fields may be automatically calculated/updated based on the values of other fields. For instance, one or more fields may be expression field that has a value calculated based on a pre-defined relationship with another field. For example, a field A may be “price” field, field B is “taxPct” field, field C is “total,” and value of field C may be calculated based on the pre-defined relationship: $\text{fieldC} = \text{fieldA} + \text{fieldB}/100$. In some cases, such relationship may be defined using the expression: “\$: $\text{fields.price} * (1 + \text{fields.tax Pct}/100)$ ”. In addition to defining relationship between multiple fields, properties such as facts about an item in the system

may also be defined using the expression such that a field can be updated automatically. For example, the expression of user's email address or email domain may be "\$: ctx.user.email" or "\$: ctx.user.email.split['@'][1]" and such expression may allow the form to grab the email information from the third-party system via the API as described above.

[0107] In the illustrated example, upon receiving a user input indicating the personalization parameters, a resultant personalized document may be assembled by pulling the content items that meet the personalization parameters from one or more documents. As shown in **FIG. 6**, the personalized document 600 may be automatically generated by pulling C1 from document C (C1 has no page rule), page A1 from document A (country=UK and sector=Tech), pages B1 from document B (size=large and B1 has no page rule), page B2 from document B (e.g., size=large and B2 has no page rule) and page B3 from document B (size=large and sector=Tech). In the illustrated example, when an assembly rule is not defined for a given content item, the content item may be set to meet any personalization parameters and be displayed by default. It is noted that the default display or hidden for a content item when there is no rule is defined can be set up by a user (e.g., author or administrator) of the system.

[0108] In some embodiments, the system may allow users to set access permissions on the document. For example, a user may set the access permission to allow people with a specific email domain to access a document. In some cases, the access permission can be set up in the personalization form. For example, a user may provide the email domain in the personalization form to give access permission to other users with the email domain.

[0109] In some embodiments, the system may also allow users to batch upload files thereby improving the efficiency to assemble a large number of documents. In some cases, a user may upload a file containing personalization parameters and values for multiple documents. The file can be in any format that is suitable for exchanging text data. For example, a user may upload a .csv (Comma Separated Values) file which contains rows and columns. Each column may have a heading and relate to a given field from the personalization form, and each row entry may include the required data/value for the corresponding field. Upon uploading the text file, the system may extract the values for the corresponding parameters and generate the assembly rules accordingly. In some cases, the resulting assembled documents may be delivered to the user in the form of .csv (containing URLs for the assembled documents). This batch processing capability beneficially allows users to personalize multiple documents without manually filling the individual forms. In

some cases, the text file may also be used to upload complex information (e.g. a pricing table) which can be part of a form submission.

[0110] In some embodiments, the personalization form may also be filled in by both a personalizer and a reader. The system may provide a user interface allowing the users choose to access and provide information to the personalization form as a reader or a personalizer. **FIG. 13** shows an example of a user interface that allows users of the system to choose to personalize the document as a reader of the content or as a personalizer (e.g., vendor, seller). For example, if the user selected to personalize the document as a reader, the user may be presented a user interface as shown in **FIG. 14** where the personalization form 1401 is displayed to the user as an overlay on top of the content 1403 before they start reading the content. The assembly process and personalization process are essentially the same as those as described elsewhere herein.

[0111] In some embodiments, during the personalization such as a user filling/completing the personalization form, the system may display the content on the fly to allow users visualize the effects in real-time. **FIG. 15** shows an example of a user interface displaying the content live when a user completes a personalization form. In the example, a user may use the “Back” and “Next” buttons 1501 to toggle between different stages in completing the personalization form. Upon receiving an input in a field of the personalization form, the document 1503 may automatically navigate to the relevant page and highlight the content (e.g., blocks 1505) that is related to the field. This beneficially provides a transparent visualization of the effect of the personalization parameters (e.g., field in the form) and allows users to personalize the document with real-time visual feedback.

[0112] Referring back to **FIG. 2**, in some embodiments, the document assembly engine 203 may comprise a content renderer for rendering the assembled document. The content renderer may be configured to execute a script (e.g., JavaScript) associated with the content and display its output in the representation as defined by the script. For example, the content renderer may render the content or document as a web-page in web browser, as a document in a desktop, document-based application that is native to the operating system, in a mobile web-browser or mobile application. The content renderer may include or be coupled to a mapping engine as described above for displaying the content item in the brand theme/style mapped to the content item. For example, the mapping engine may retrieve the brand information from the brand database based on the presentation rules associated with the content item. Any change to a brand style (e.g., change of a brand style, off brand/not available, change of mapping relationship to a different brand style) may be updated at runtime and reflected upon rendering the content.

[0113] The data management unit 205 may provide the reader analytics capability that can be utilized to track, analyze and extract insight about how a reader interacts with the personalized content. For example, the document may be embedded with tracking features (e.g., web analytics tracker), insight metrics, analytics, or interfaces capable of extracting intelligence and insight for a variety of applications. For instance, data may be collected indicative of user interaction with the document. The interaction data may be analyzed to extract metrics and usage analytics measuring the degree to which slides/pages were provided or made available to and viewed by customers (e.g., the number of times a content item was pitched to customers), performance metrics measuring the degree to which readers have engaged with (e.g., read, edited, shared, saved) the interactive content (e.g., the dwell time on an item, such as the amount of time that the content was displayed in a content viewer (e.g., web browser or other application), impact analytics indicative of the content's impact on business metrics (e.g., average revenue per pitch of a content item that may be obtained from other systems, such as customer relationship management (CRM) systems, marketing automation systems, *etc.*), and various other analytics. Such analytics may be used to personalize a future interactive content/document.

[0114] The data management unit 205 may also be configured to manage the content data, metadata, assembly rules, analytics data, brand styles, presentation formats, and other data as described elsewhere herein in the database 230. The data management unit 205 may comprise a plurality of functional components for analyzing the collected reader interaction data, extracting intelligence and insight for improving the personalized content. The database 203 can be the same as the database as described in FIG. 1.

[0115] The creator interface 210 may be configured to permit content creators or authors to create documents and content, and define one or more assembly rules associated with a content item as described above. In some cases, the creator interface may include a graphical user interface (GUI) that can be integrated into other applications (e.g., interactive content creation application) or webhooks that can be integrated into other applications. A user (e.g., creator, author) may preview, edit, save, create document, content items, and assembly rules via the GUI.

[0116] In some embodiments, the GUIs may be rendered on a display screen on a user device (e.g., a user device). The user interfaces and functionality described herein may be provided by software executing on the user's computing device, by the system 200 located remotely that is in communication with the computing device via one or more networks, and/or some combination of

software executing on the computing device. The user interfaces may be provided by a cloud computing system.

[0117] The personalizer interface 220 may be configured for representing one or more personalization fields for a user to personalize a selected document. In some cases, the personalizer interface may provide a graphical user interface (GUI) that can be integrated into other applications (e.g., enterprise applications) or API/webhooks that can be integrated into other applications. A user (e.g., personalizer) may preview, edit, save, publish a personalized document, and provide personalization parameters via the GUI.

[0118] One or more of the multiple components may be coupled to a database 230. The database can be the same as the database 111, 123 as described in FIG. 1. In some cases, the system may implement one or more trained predictive models to generate or update the assembly rules, analyze reader interaction data, extract insight and intelligence and perform various other functions as described herein. The content creation and management system may implement the methods described with respect to **FIG. 7**.

[0119] **FIG. 7** illustrates an example of a process 700 of generating personalized, interactive content 739, according to some embodiments described herein. At a content creation stage 701, a content creator or author 703 may create a document or content 707 using a content creation unit 705. For example, the content creation unit may provide a client software (i.e., software applications installed on the creator's devices) that may be available either as downloadable software or mobile applications for various types of computer devices as described above. Alternatively, the client software can be implemented in a combination of one or more programming languages and markup languages for execution by various web browsers. For example, the client software can be executed in web browsers that support JavaScript and HTML rendering, such as Chrome, Mozilla Firefox, Internet Explorer, Safari, and any other compatible web browsers. The various embodiments of client software applications may be compiled for various devices, across multiple platforms, and may be optimized for their respective native platforms. The client software tool 705 may also permit the author 703 to add, edit, and modify one or more rules associated with a document, content or content item (e.g., document page, slides, etc.). The one or more rules may include assembly rules and/or presentation rules (e.g., brand styles) as described above.

[0120] The created document may be stored as structured data such as JavaScript object notation (JSON) data in the document database 711. For example, the document may be stored in a pre-defined document schema that contains the content data and metadata needed to render each

document (e.g., mapping relationship to a brand style), and data about the assembly rules for selecting a content item for display. In some cases, the document database 711 may also store the brand styles data. Alternatively, the brand styles may be stored in a separate database or can be retrieved from external data sources using the mapping relationship.

[0121] A personalizer 721 (e.g., marketing managers, content managers, sales people, recruiters, marketers, *etc.*) may access the system for customizing and personalizing a document created by the authors. The personalizer 721 may select one or more documents 725 for customization via a library tool 723 provided by the system. The personalizer 721 may proceed to input one or more personalization parameters for personalizing the selected document (personalization stage 731). The one or more personalization parameters may be provided via a personalization interface 733 as described above. For instance, a form may be generated upon receiving a user input indicating the document to be personalized. The form may be displayed on a user interface to the personalizer with one or more auto-populated fields prompting the user to select one or more options for personalizing the document. Upon completion of the form 735, the assembly engine 737 of the system may retrieve the relevant content items (e.g., document pages, content elements within a page) from the document database 711 and generate a personalized document 739. In some cases, the assembly engine may retrieve content items from external data sources such as customer CRM, or other external assets and databases based on the assembly rules embedded in the content item of the selected document.

[0122] The personalized document 739 may be rendered and output for display to a reader 741. For example, the personalized document may be provided to readers with tracking features or interfaces capable of extracting intelligence, reading analytics and insight 743 for a variety of applications. For instance, the document may be rendered within a browser and a web analytics tracker may be used for collecting data about how the reader interacts with the document, content items or web page.

[0123] In some cases, the personalized document may include interactive features for a reader to actively interact with one or more content items. For instance, a reader may be permitted to browse, filter, or select a content item (e.g., page, video) for viewing. In some cases, the interactive features may include a survey requesting reader's input. In some cases, analytics features such as NLP engine to process the input data (e.g., input text captured from the survey) and produce a structured output including the linguistic information. The NLP engine may employ any suitable NLP techniques such as a parser to perform parsing on the input text. A parser may include instructions for

syntactically, semantically, and lexically analyzing the text content of the user input and identifying relationships between text fragments in the user input. The parser makes use of syntactic and morphological information about individual words found in the dictionary or "lexicon" or derived through morphological processing (organized in the lexical analysis stage).

[0124] As used herein, "or" is inclusive and not exclusive, unless expressly indicated otherwise by context. Therefore, "A or B" means "A, B, or both," unless expressly indicated otherwise or indicated otherwise by context. Moreover, "and" is both joint and several, unless expressly indicated otherwise or indicated otherwise by context.

[0125] While preferred embodiments of the present invention have been shown and described herein, it will be obvious to those skilled in the art that such embodiments are provided by way of example only. It is not intended that the invention be limited by the specific examples provided within the specification. While the invention has been described with reference to the aforementioned specification, the descriptions and illustrations of the embodiments herein are not meant to be construed in a limiting sense. Numerous variations, changes, and substitutions will now occur to those skilled in the art without departing from the invention. Furthermore, it shall be understood that all aspects of the invention are not limited to the specific depictions, configurations or relative proportions set forth herein which depend upon a variety of conditions and variables. It should be understood that various alternatives to the embodiments of the invention described herein may be employed in practicing the invention. It is therefore contemplated that the invention shall also cover any such alternatives, modifications, variations or equivalents. It is intended that the following claims define the scope of the invention and that methods and structures within the scope of these claims and their equivalents be covered thereby.

CLAIMS

WHAT IS CLAIMED IS:

1. A system for automatically assembling an interactive document comprising:

a server in communication with a plurality of user devices over a network, wherein the server comprises: a memory for storing a set of software instructions, and one or more processors configured to execute the set of software instructions to:

(a) embed a first set of rules into a first modular item of a first document;

(b) receive one or more parameters for personalizing the first document;

(c) pull a second modular item from a second document based at least in part on a value of the one or more parameters and the first set of rules; and

(d) assemble the second modular item with the first document to generate a derivative document.
2. The system of claim 1, wherein the first modular item is stored in a structured data that defines the first set of rules.
3. The system of claim 1, wherein the first set of rules define a link between the first modular item and another document or a rule for assembling the first modular item into a derivative document.
4. The system of claim 1, wherein the value of the one or more parameters is specified by a user via a user interface.
5. The system of claim 4, wherein the user interface displays one or more personalization fields that are automatically generated based on the first set of rules.
6. The system of claim 5, wherein at least one of the one or more personalization fields is generated based on a second set of rules associated with the second modular item.
7. The system of claim 5, wherein the one or more processors are further configured to: upon receiving an input in a given personalization field, display at least a portion of the content from the first document that is related to the given personalization field.

8. The system of claim 1, wherein the value of the one or more parameters is specified by a user in a text file.
9. The system of claim 1, wherein the first set of rules includes a mapping relationship that maps the first modular item to a style for rendering the first modular item.
10. The system of claim 9, wherein the derivative document is displayed to a reader using the mapped style.
11. The system of claim 10, wherein the server is configured to collect data about the reader's interaction with the derivative document to extract insight data.
12. The system of claim 1, wherein the one or more processors are configured to further receive an instruction for personalizing the first modular item or the second modular item.
13. The system of claim 1, wherein the one or more processors are configured to further store the one or more parameters and a reference to the first document for updating the derivative document.
14. The system of claim 13, wherein the one or more processors are configured to further convert the derivative document into a master document by storing the one or more parameters as a set of rules associated with the derivative document.
15. A system for personalizing an interactive document comprising:
 - (a) a first component configured to create one or more modular items of a document, wherein at least one modular item is associated with a set of rules defining a link between the at least one modular item and another document or a rule for assembling the at least one modular item into a derivative document; and
 - (b) a second component configured to:
 - (i) receive an instruction for personalizing a given document;
 - (ii) assemble a plurality of modular items to generate a derivative document of the given document, wherein the plurality of modular items are pulled from the given document and at least another document based at least in part on a set of rules associated with at least one modular item of the given document; and
 - (iii) render the derivative document using a style associated with the given document.

16. The system of claim 15, wherein the first component comprises a first user interface configured to receive a user input to generate the first set of rules.
17. The system of claim 16, wherein the first user interface displays a plurality of fields for defining the first set of rules.
18. The system of claim 15, wherein the first component comprises a second user interface configured to receive user input to customize the one or more modular items.
19. The system of claim 15, wherein the set of rules associated with the at least one item of the given document includes a mapping relationship that maps the at least one item to the style.
20. The system of claim 15, wherein the second component comprises a user interface for receiving the instruction for personalizing the given document.

ABSTRACT OF THE DISCLOSURE

A system is provided for personalizing an interactive content. The system comprises: a content creation component configured to create one or more content items for a document, and at least one content item is associated with a set of rules defining a link between the at least one content item and another document or a rule for assembling the at least one content into a personalized document; and a content personalization component configured to: (i) receive an instruction for personalizing a given document; (ii) assemble a plurality of content items to generate a personalized document, and the plurality of content items are pulled from the given document and at least another document based at least in part on a set of rules associated with at least one content item of the given document; and (iii) render the personalized document using a brand style associated with the given document.

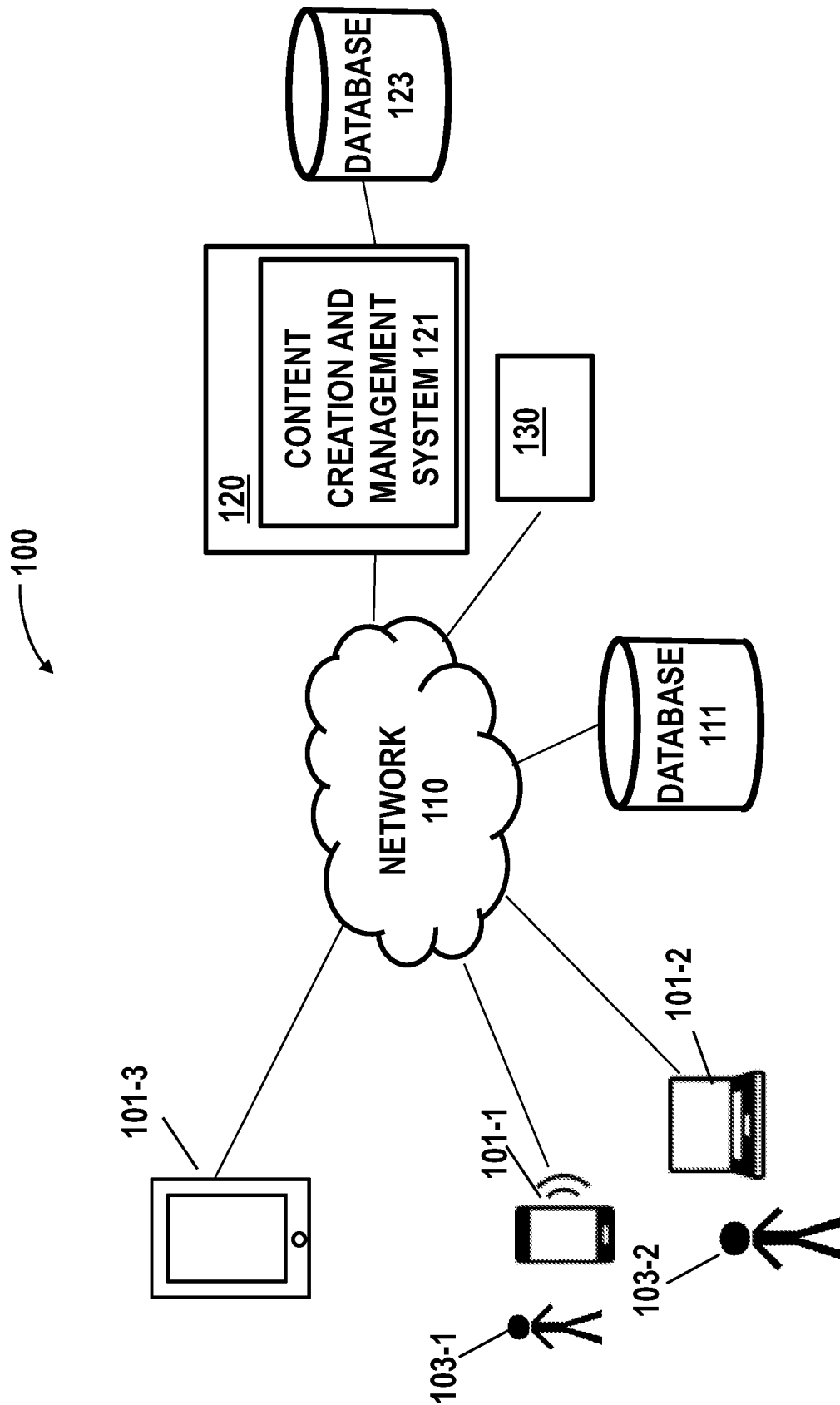


FIG. 1

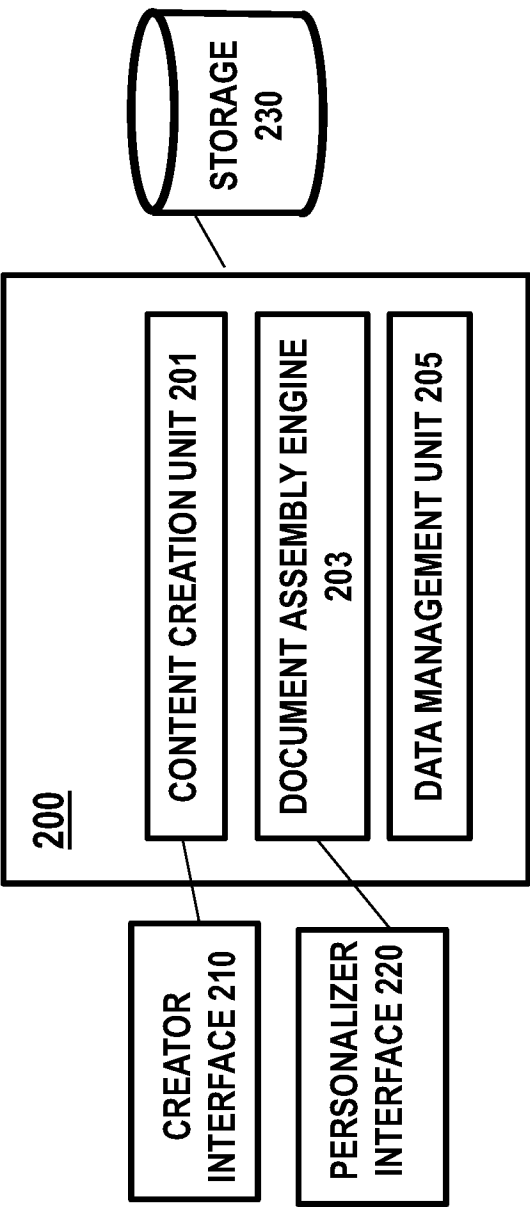


FIG. 2

300

SURF

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PAGE IS

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Is

New York

OR

State

Is

Nebraska

OR

AND

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less

2,000,000

OR

AND

FIG. 3

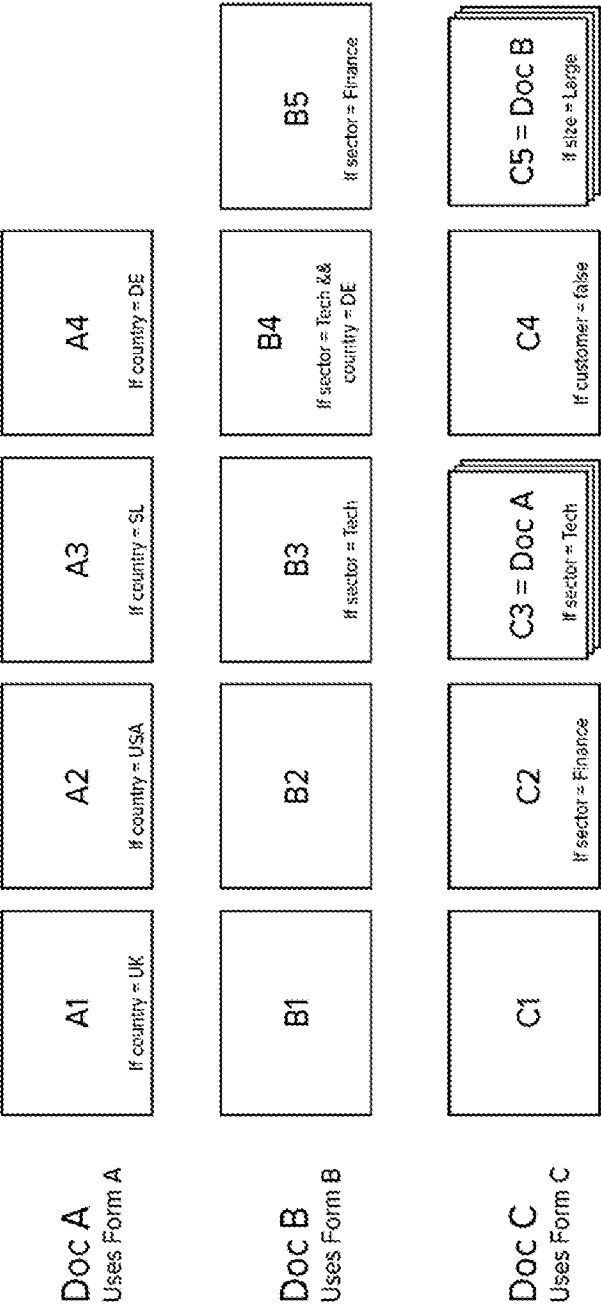


FIG. 4

500 

Form C

Sector	Tech >
Is customer?	Yes >
Size	Large >
Country	UK >

FIG. 5

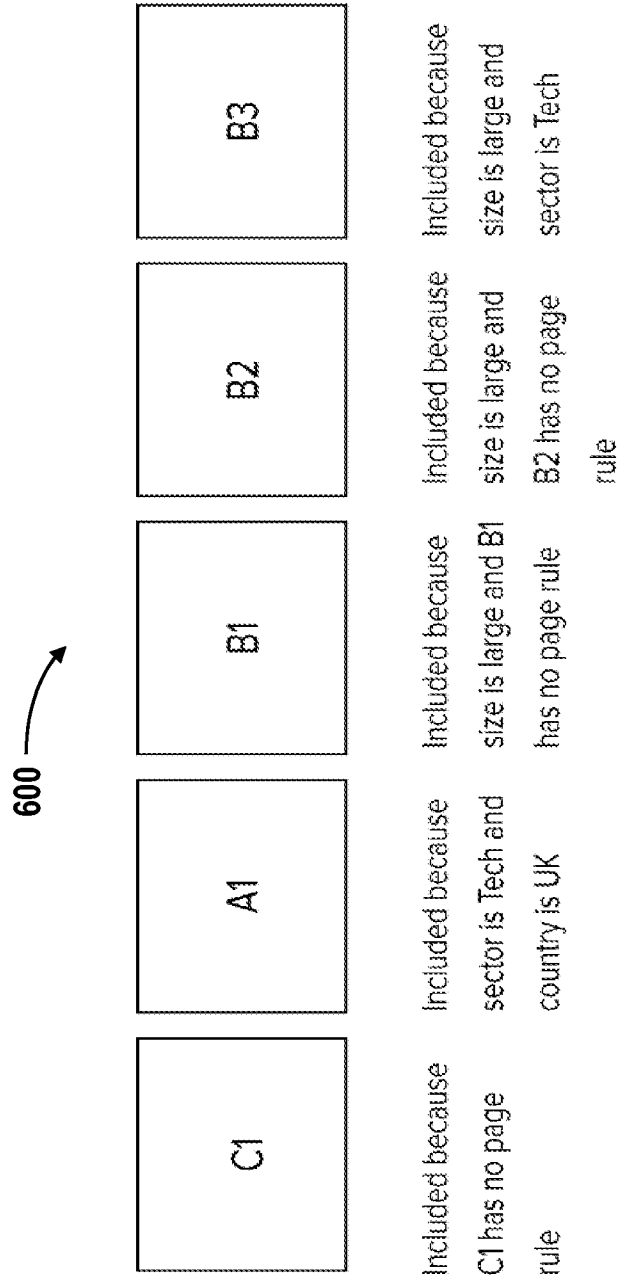


FIG. 6

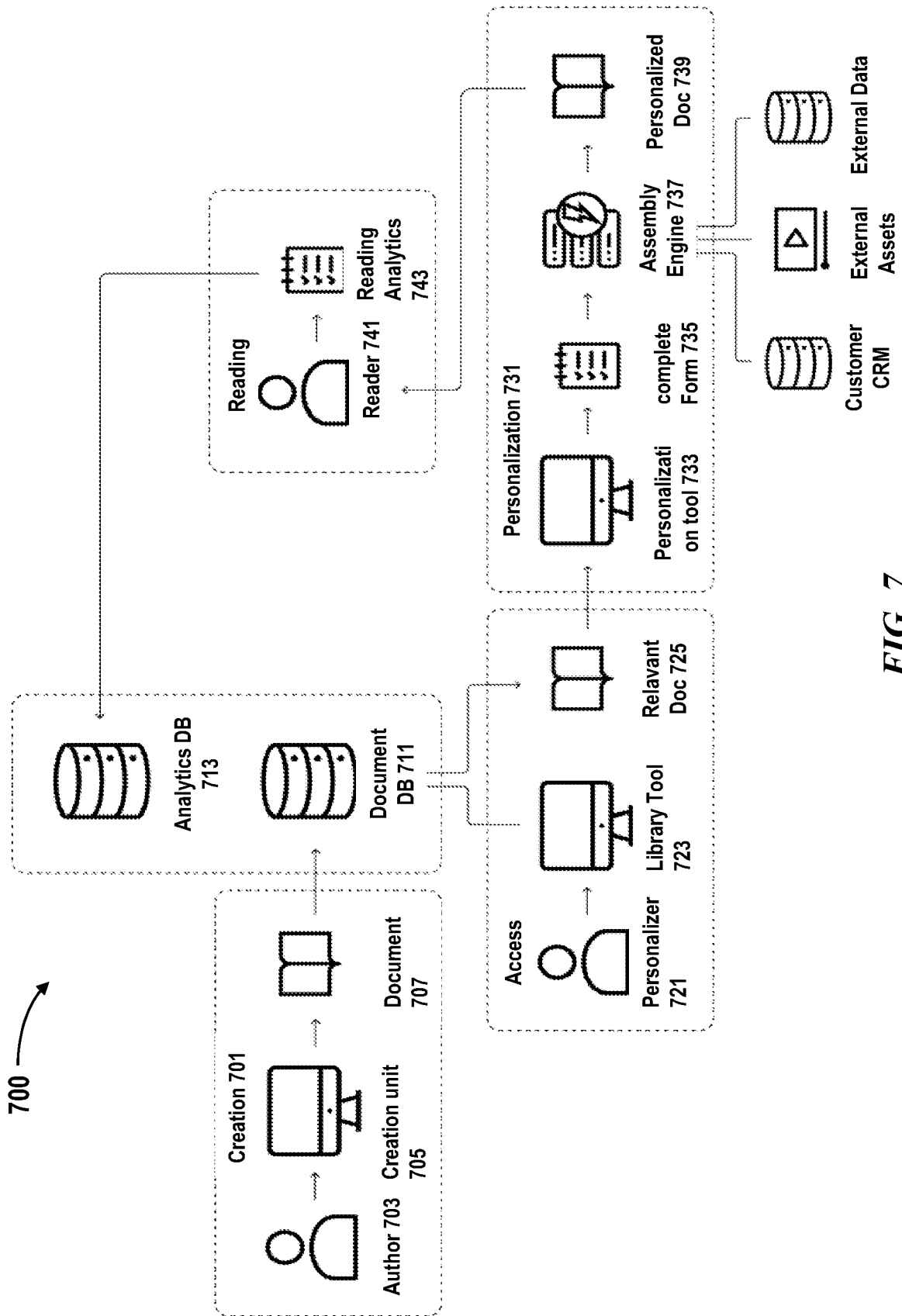


FIG. 7

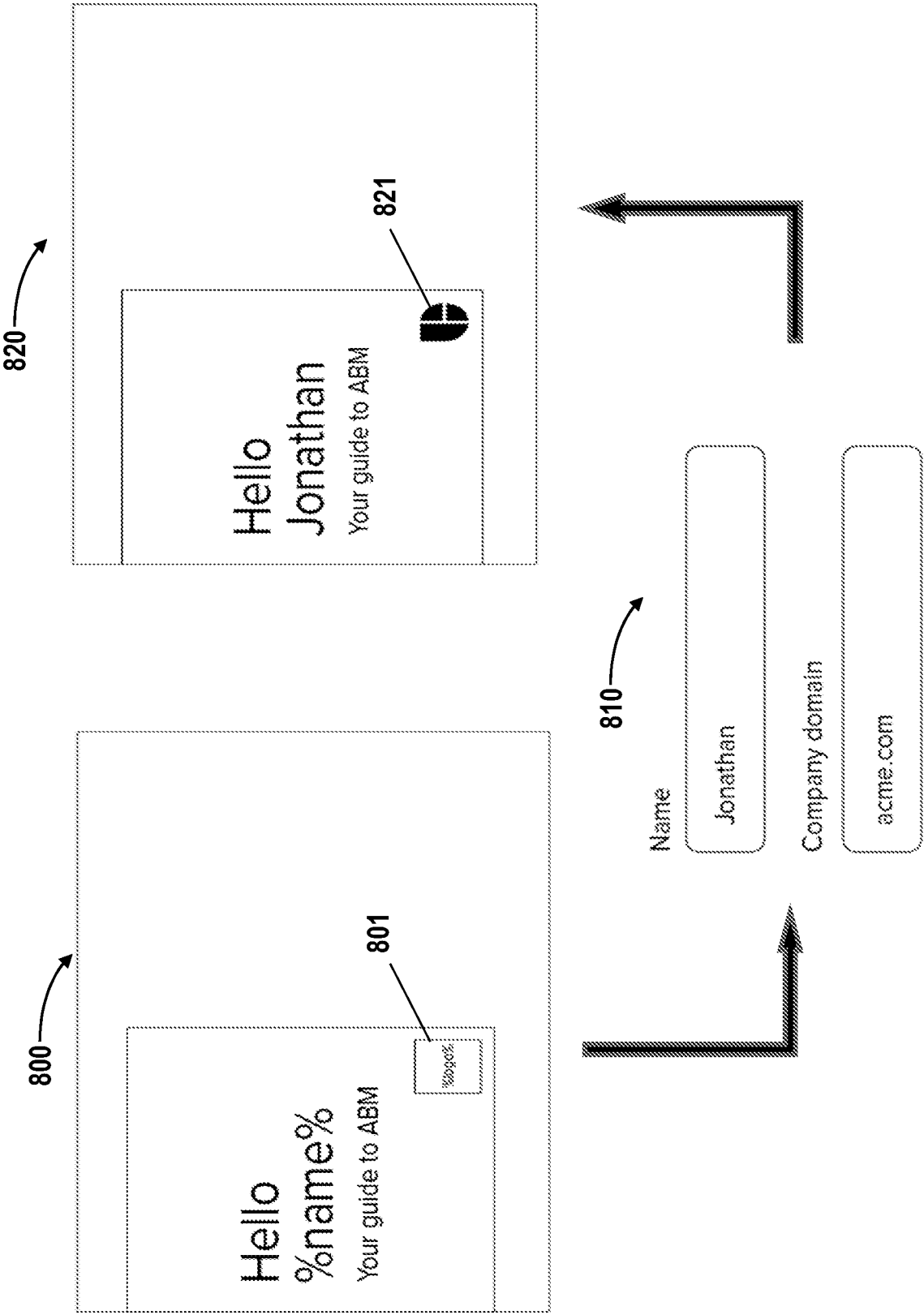


FIG. 8

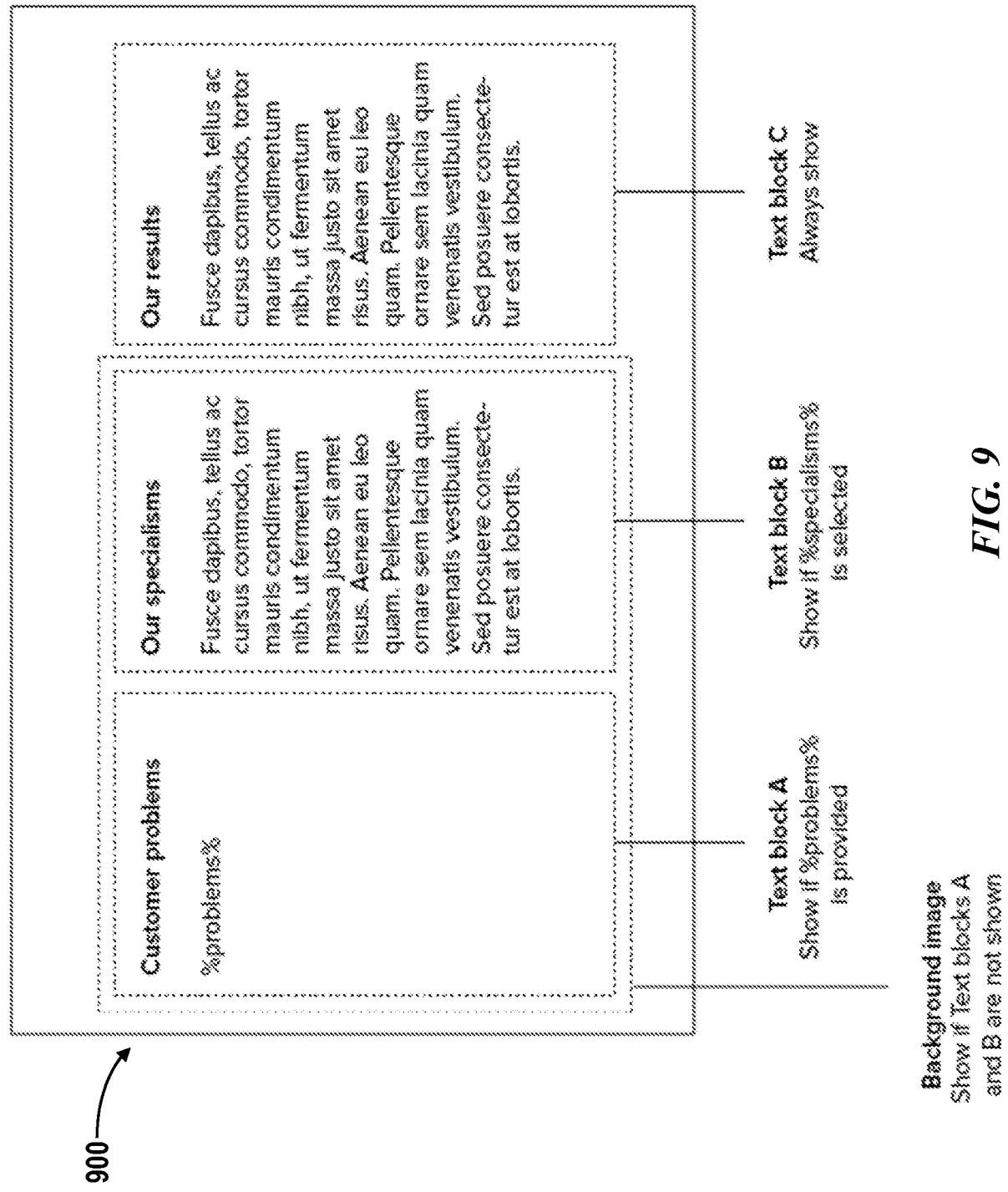


FIG. 9

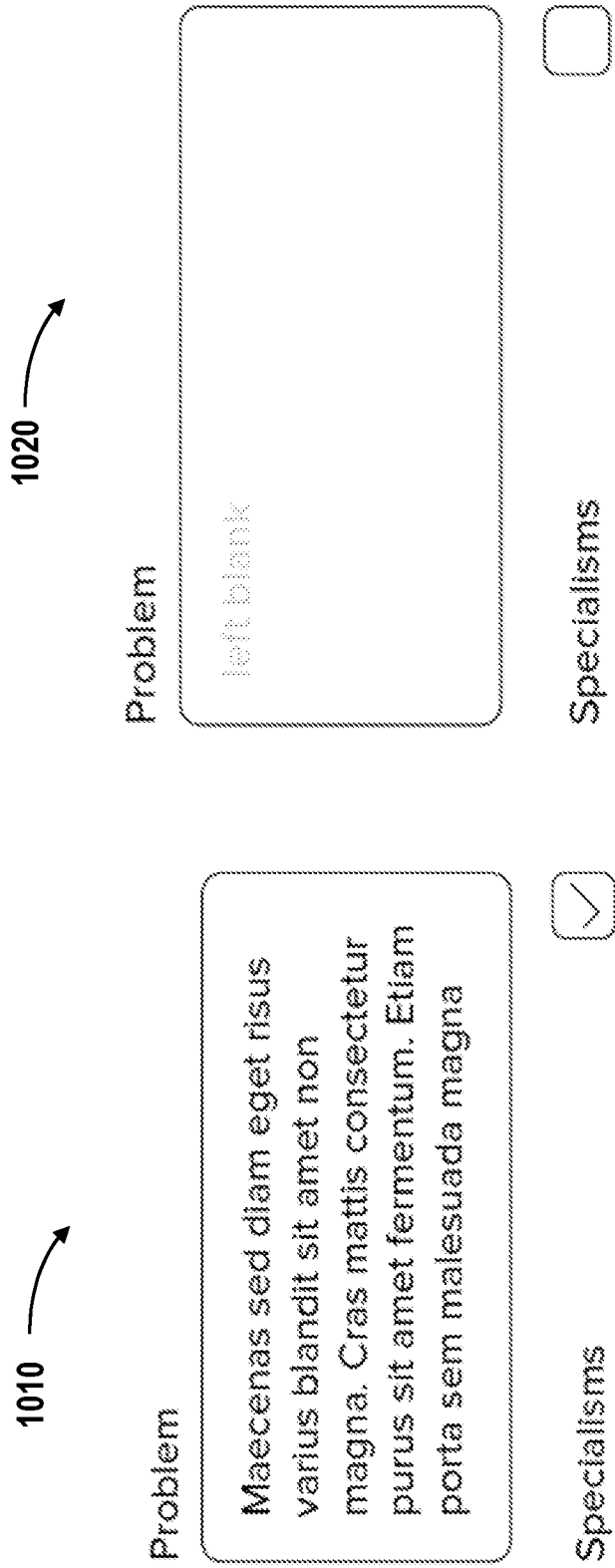


FIG. 10

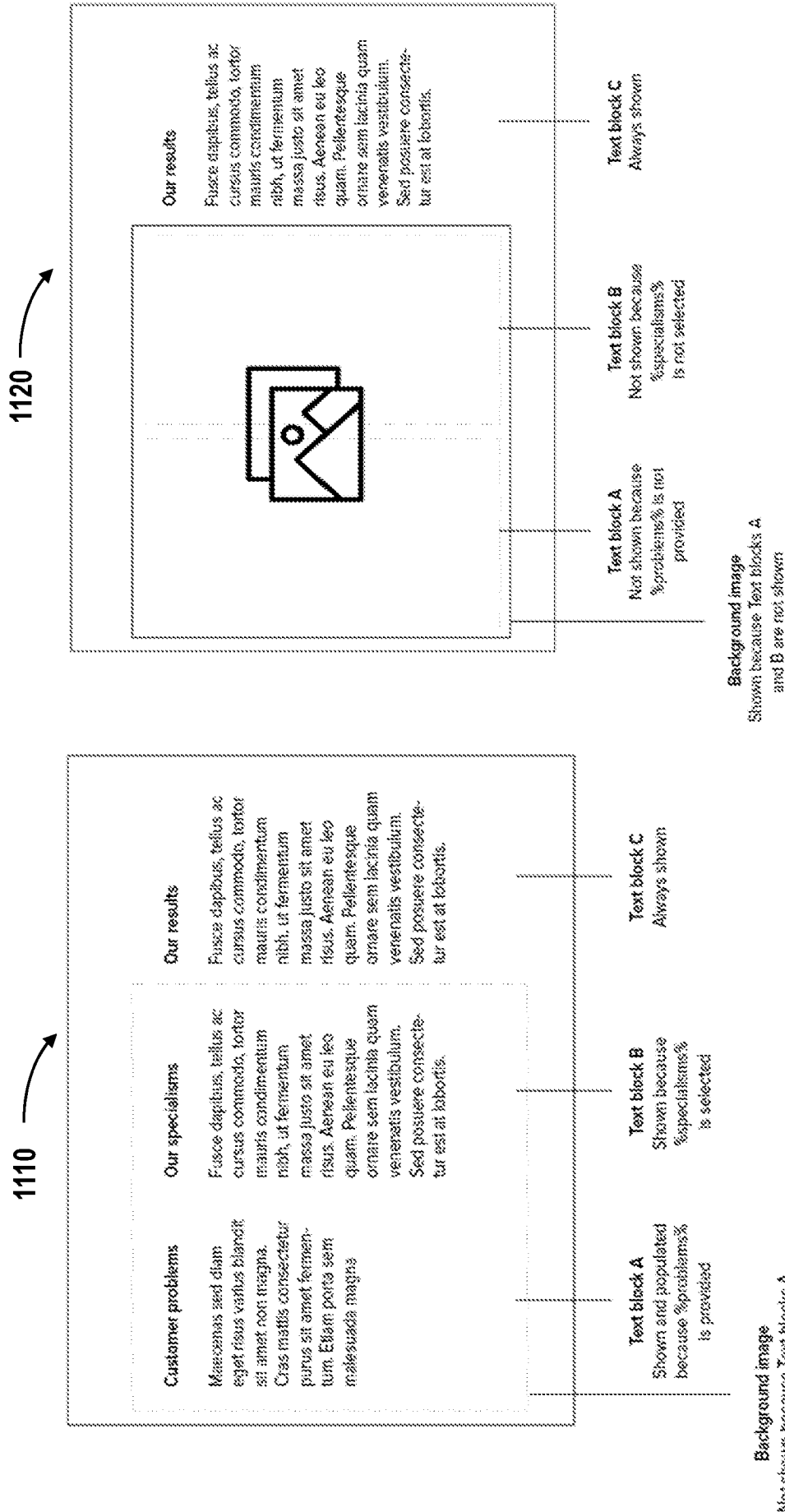


FIG. 11

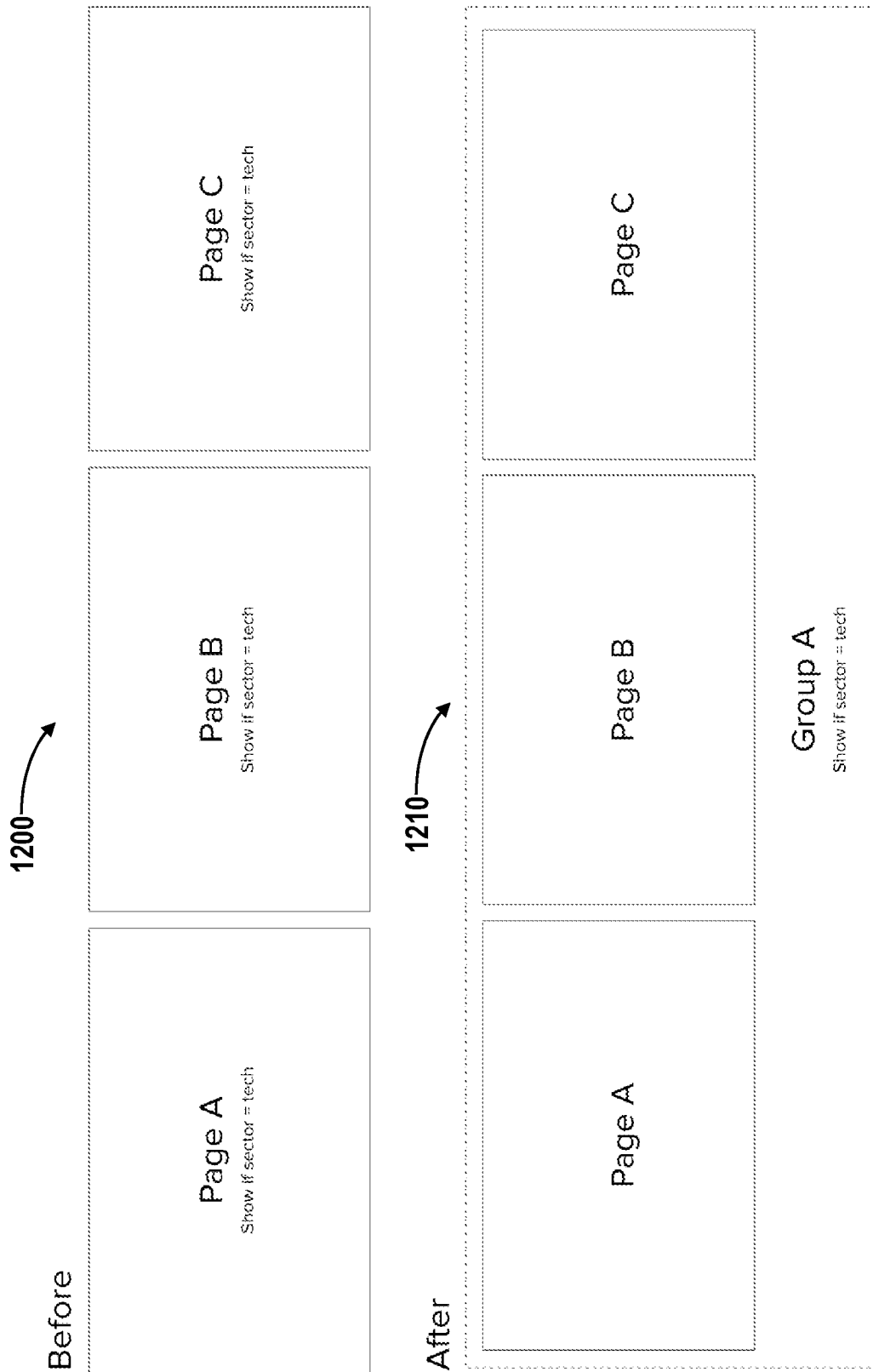


FIG. 12

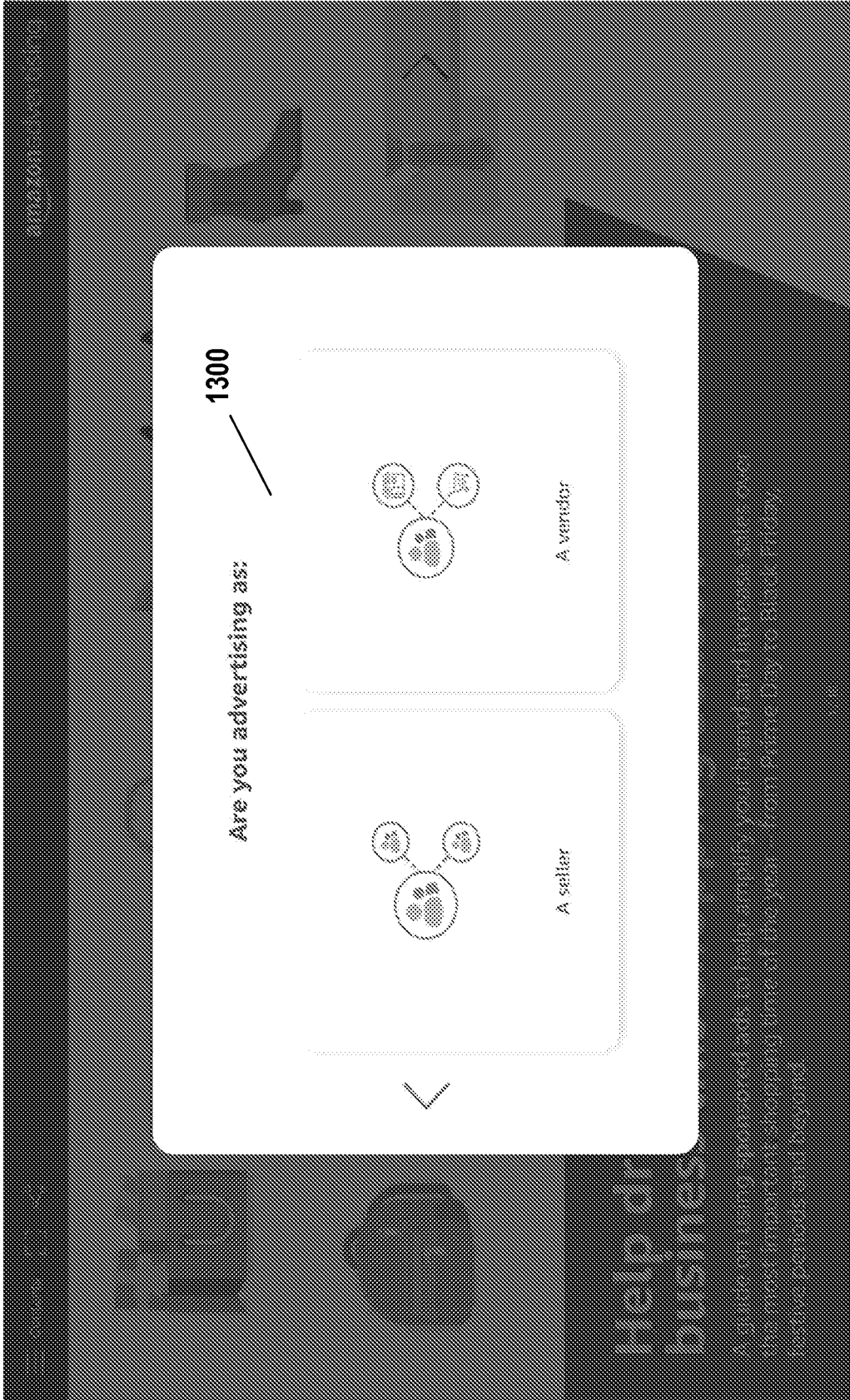


FIG. 13

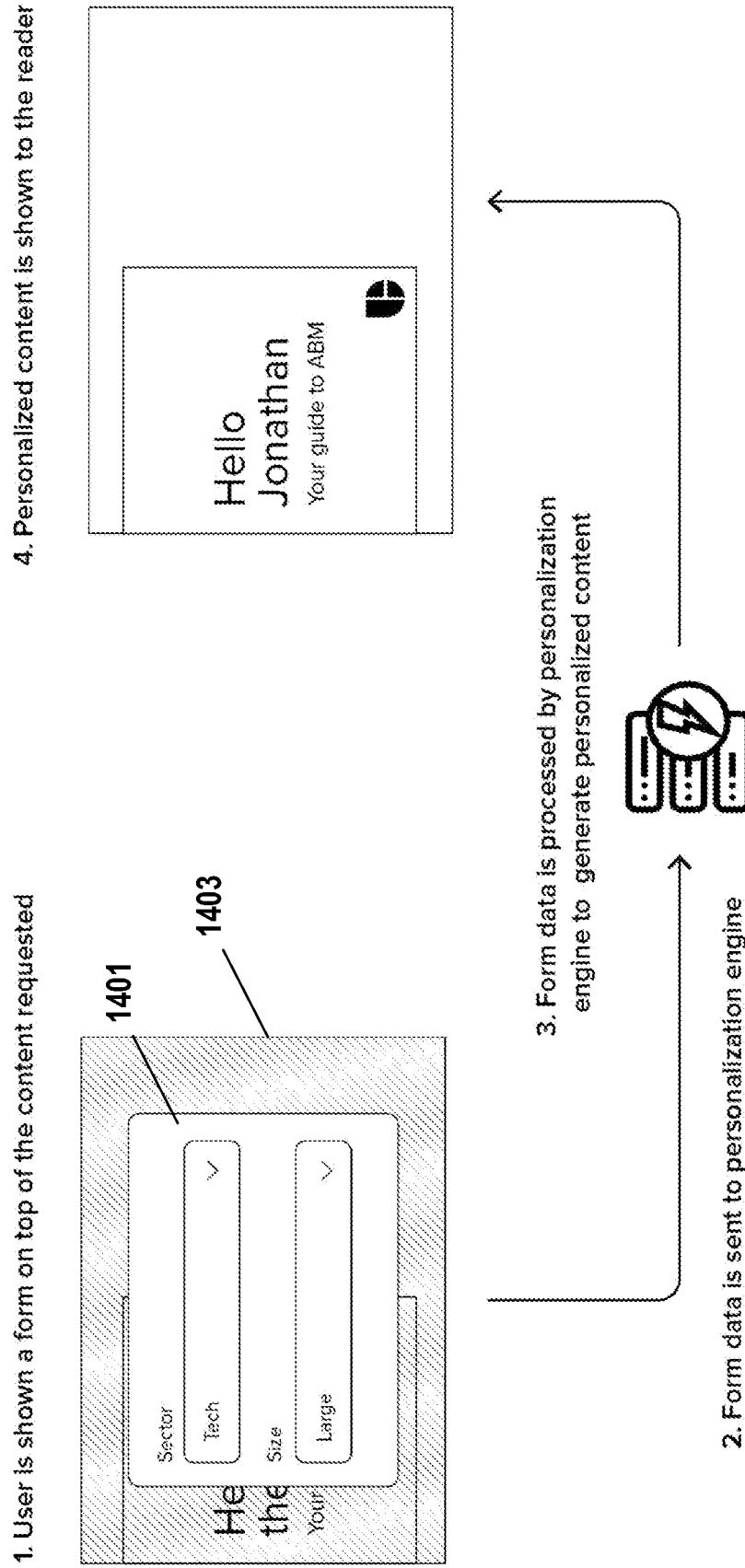


FIG. 14

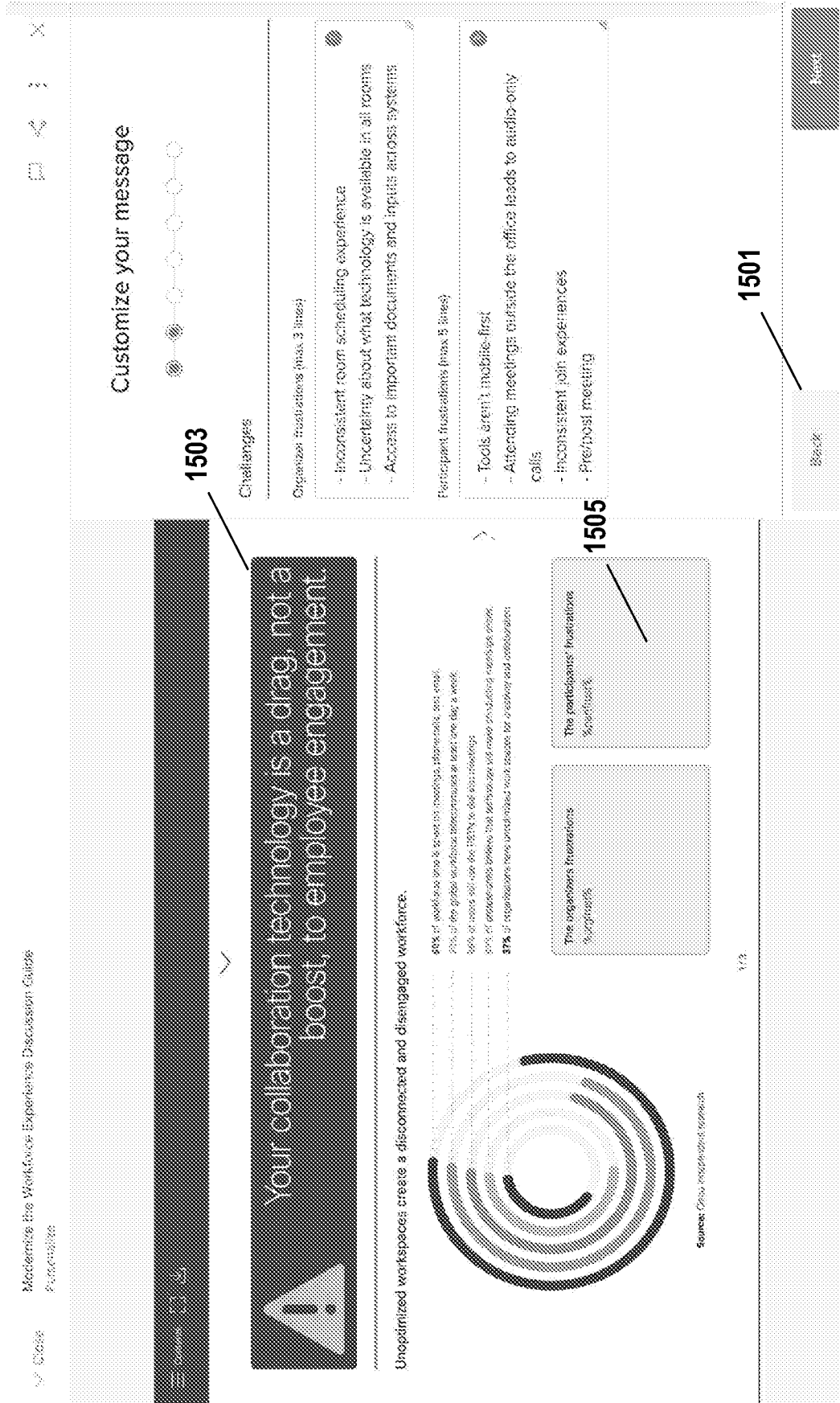


FIG. 15

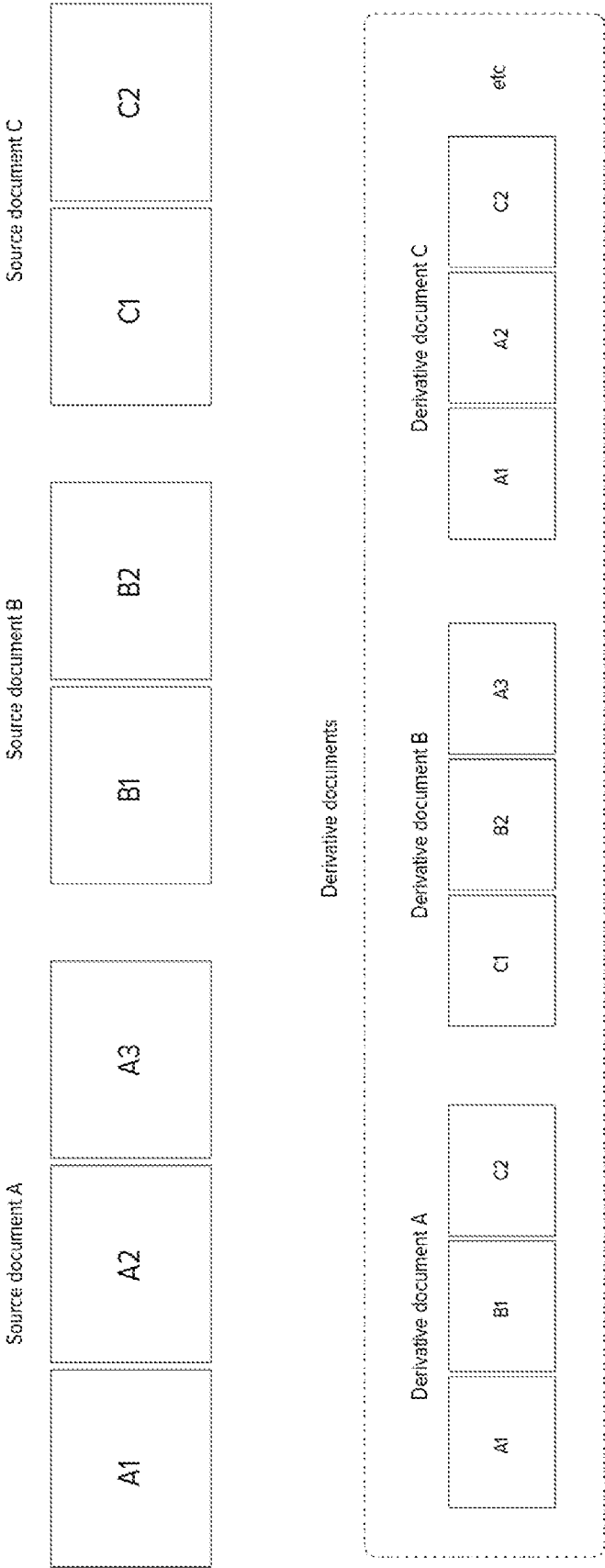


FIG. 16

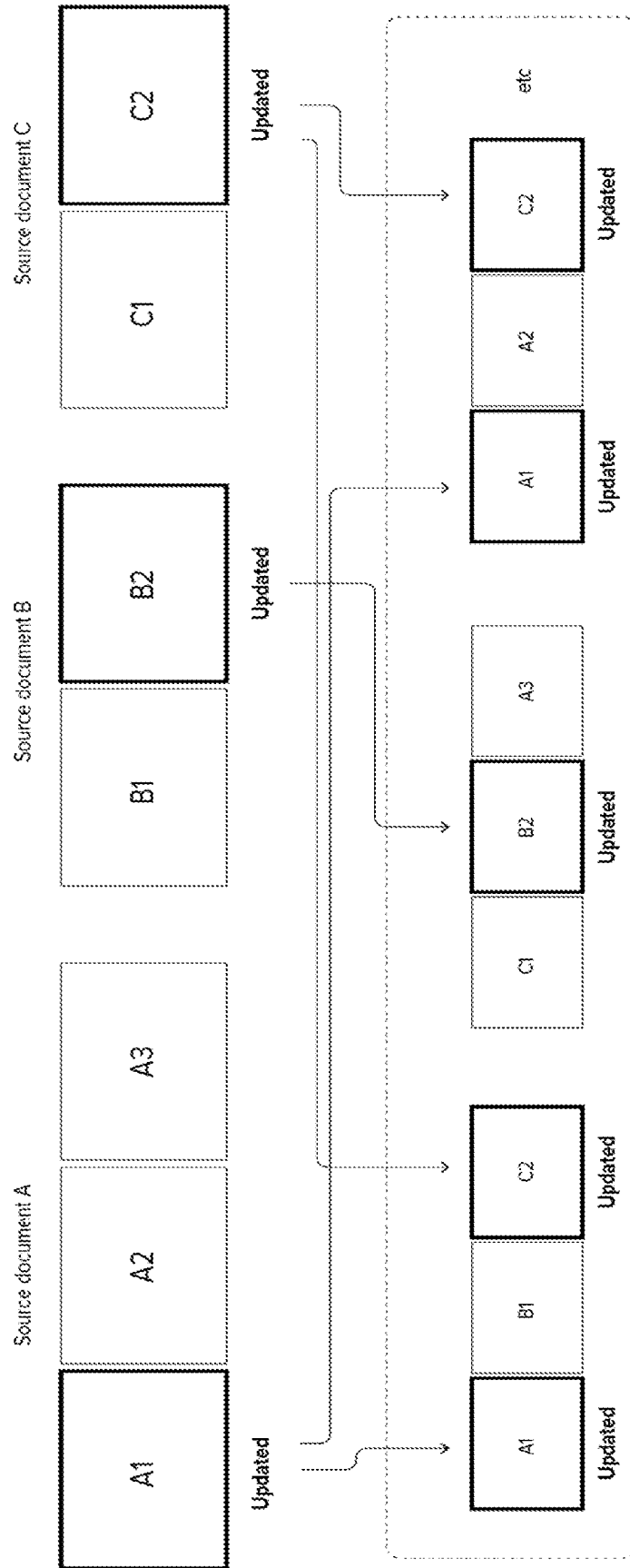


FIG. 17

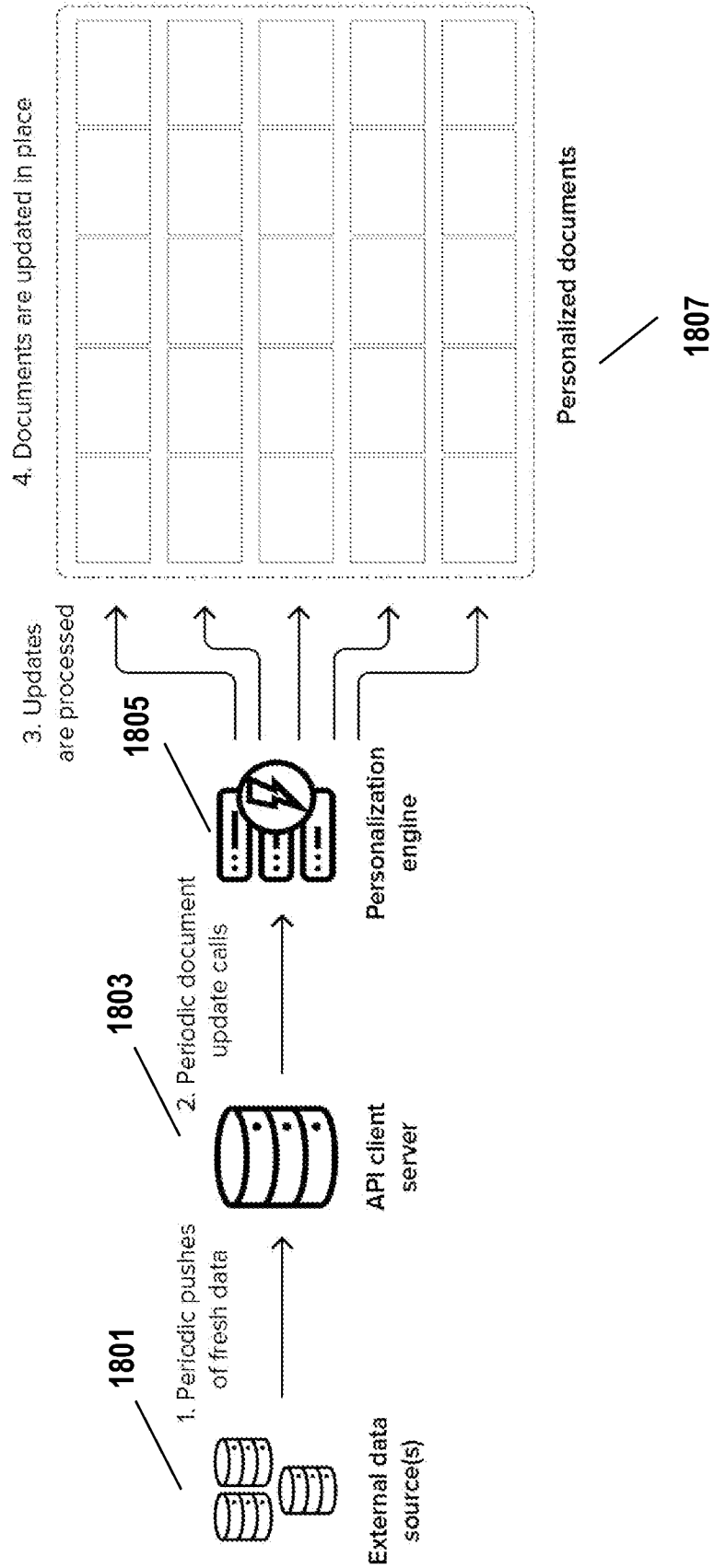


FIG. 18

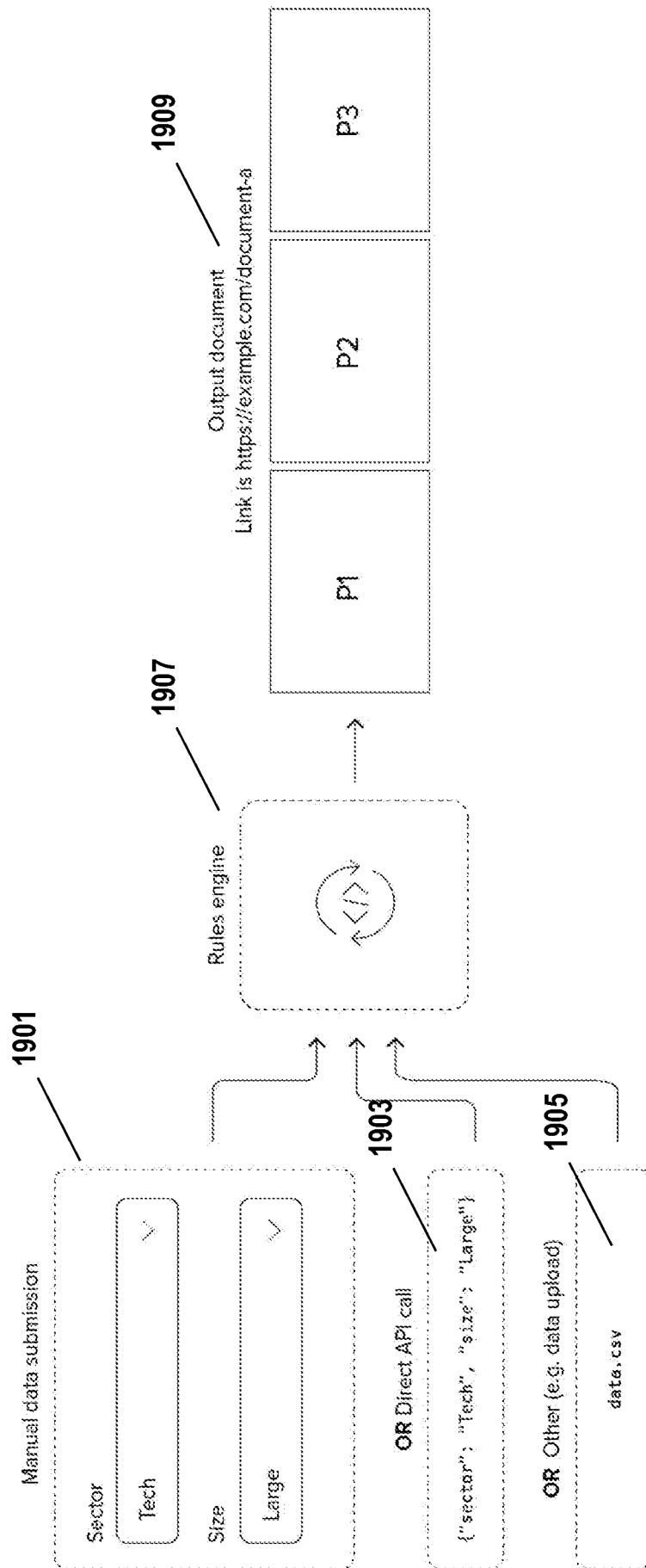


FIG. 19

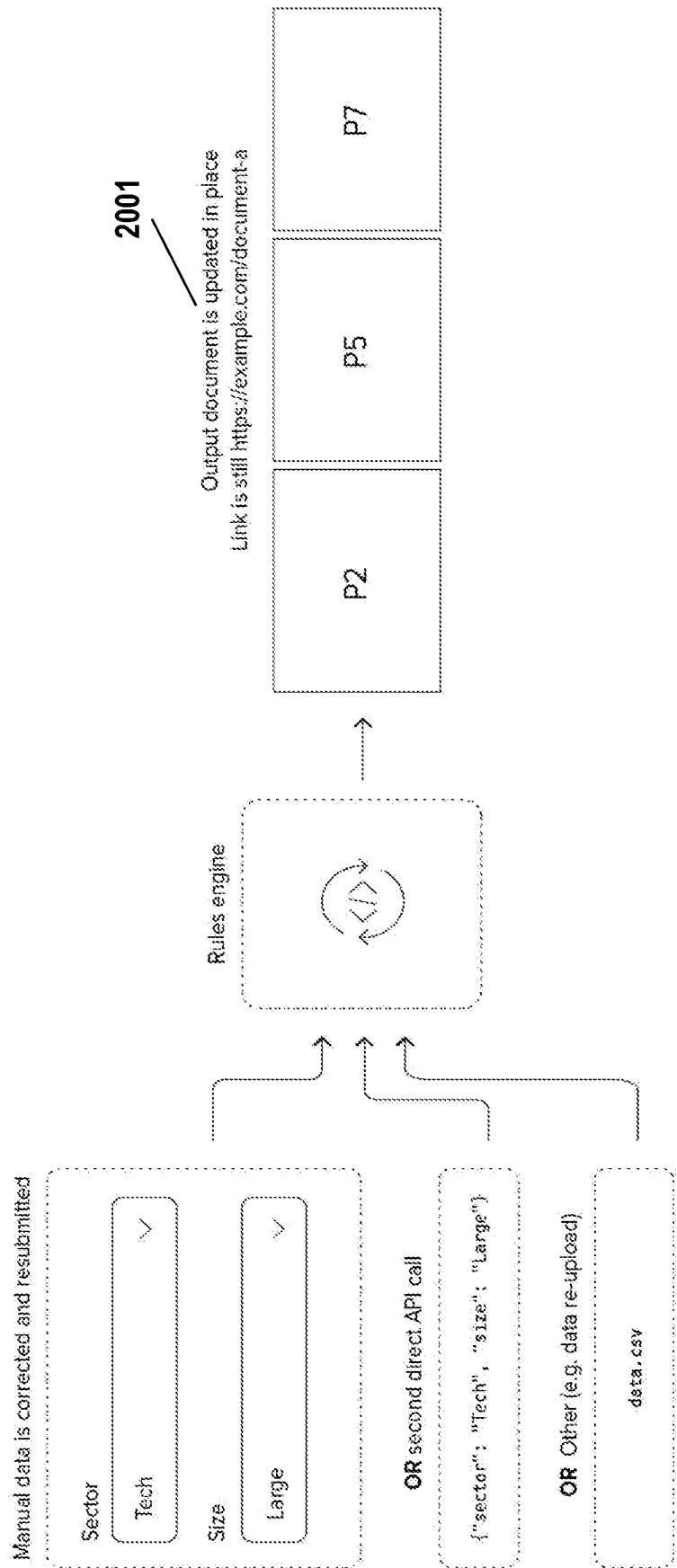


FIG. 20

DECLARATION (37 CFR 1.63) FOR UTILITY OR DESIGN APPLICATION USING AN APPLICATION DATA SHEET (37 CFR 1.76)

Title of Invention	METHODS AND SYSTEMS FOR INTERACTIVE CONTENT CREATION
As the below named inventor, I hereby declare that: This declaration is directed to: ☐ The attached application, or ☒ United States application or PCT international application number <u>17/347,899</u> filed on <u>June 15, 2021</u> The above-identified application was made or authorized to be made by me. I believe that I am the original inventor or an original joint inventor of a claimed invention in the application. I hereby acknowledge that any willful false statement made in this declaration is punishable under 18 U.S.C. 1001 by fine or imprisonment of not more than five (5) years, or both. WARNING: Petitioner/applicant is cautioned to avoid submitting personal information in documents filed in a patent application that may contribute to identity theft. Personal information such as social security numbers, bank account numbers, or credit card numbers (other than a check or credit card authorization form PTO-2038 submitted for payment purposes) is never required by the USPTO to support a petition or an application. If this type of personal information is included in documents submitted to the USPTO, petitioners/applicants should consider redacting such personal information from the documents before submitting them to the USPTO. Petitioner/applicant is advised that the record of a patent application is available to the public after publication of the application (unless a non-publication request in compliance with 37 CFR 1.213(a) is made in the application) or issuance of a patent. Furthermore, the record from an abandoned application may also be available to the public if the application is referenced in a published application or an issued patent (see 37 CFR 1.14). Checks and credit card authorization forms PTO-2038 submitted for payment purposes are not retained in the application file and therefore are not publicly available.	
LEGAL NAME OF INVENTOR Inventor: <u>Nicholas Kingsley Mason</u> Date (Optional): <u>18 JUNE 2021</u> Signature: <u></u>	
Note: An application data sheet (PTO/SB/14 or equivalent), including naming the entire inventive entity, must accompany this form or must have been previously filed. Use an additional PTO/AIA/01 form for each additional inventor.	

This collection of information is required by 35 U.S.C. 115 and 37 CFR 1.63. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 1 minute to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

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Application Number	
Filing Date	Herewith
First Named Inventor	Nicholas Kingsley Mason
Title	METHODS AND SYSTEMS FOR INTERACTIVE CONTENT CREATION
Art Unit	
Examiner Name	
Attorney Docket Number	56000-701.301

SIGNATURE of Applicant or Patent Practitioner

Signature	/Shuaimin Liu/	Date (Optional)	10/18/2021
Name	Shuaimin Liu	Registration Number	L1361
Title (if Applicant is a juristic entity)			
Applicant Name (if Applicant is a juristic entity)	Turtl Surf & Immerse Limited		

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



*Total of 1 forms are submitted.

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POWER OF ATTORNEY BY APPLICANT

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Application Number	Filing Date

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021971

OR

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

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City

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Country

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

Turtl Surf & Immerse Limited

- ☐ Inventor or Joint Inventor (title not required below)
- ☐ Legal Representative of a Deceased or Legally Incapacitated Inventor (title not required below)
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- ☐ Person Who Otherwise Shows Sufficient Proprietary Interest (e.g., a petition under 37 CFR 1.46(b)(2) was granted in the application or is concurrently being filed with this document) (provide signer's title if applicant is a juristic entity)

SIGNATURE of Applicant for Patent

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

Signature

Date (Optional)

7.9.21

Name

Susan Court

Title

General Counsel/Director of Customer Success

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

☒ Total of 1 forms are submitted.

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

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FILED EX1002

IPR2026-00403

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STATEMENT UNDER 37 CFR 3.73(c)Applicant/Patent Owner: Turtl Surf & Immerse LimitedApplication No./Patent No.: _____ Filed/Issue Date: HerewithTitled: METHODS AND SYSTEMS FOR INTERACTIVE CONTENT CREATIONTurtl Surf & Immerse Limited, a limited liability company

(Name of Assignee)

(Type of Assignee, e.g., corporation, partnership, university, government agency, etc.)

states that, for the patent application/patent identified above, it is (choose **one** of options 1, 2, 3 or 4 below):

1. ☒ The assignee of the entire right, title, and interest.
2. ☐ An assignee of less than the entire right, title, and interest (check applicable box):
- ☐ The extent (by percentage) of its ownership interest is _____%. Additional Statement(s) by the owners holding the balance of the interest must be submitted to account for 100% of the ownership interest.
- ☐ There are unspecified percentages of ownership. The other parties, including inventors, who together own the entire right, title and interest are:

Additional Statement(s) by the owner(s) holding the balance of the interest must be submitted to account for the entire right, title, and interest.

3. ☐ The assignee of an undivided interest in the entirety (a complete assignment from one of the joint inventors was made). The other parties, including inventors, who together own the entire right, title, and interest are:

Additional Statement(s) by the owner(s) holding the balance of the interest must be submitted to account for the entire right, title, and interest.

4. ☐ The recipient, via a court proceeding or the like (e.g., bankruptcy, probate), of an undivided interest in the entirety (a complete transfer of ownership interest was made). The certified document(s) showing the transfer is attached.

The interest identified in option 1, 2 or 3 above (not option 4) is evidenced by either (choose **one** of options A or B below):

- A. ☒ An assignment from the inventor(s) of the patent application/patent identified above. The assignment was recorded in the United States Patent and Trademark Office at Reel 057462, Frame 0058, or for which a copy thereof is attached.
- B. ☐ A chain of title from the inventor(s), of the patent application/patent identified above, to the current assignee as follows:
1. From: _____ To: _____
- The document was recorded in the United States Patent and Trademark Office at
- Reel _____, Frame _____, or for which a copy thereof is attached.
2. From: _____ To: _____
- The document was recorded in the United States Patent and Trademark Office at
- Reel _____, Frame _____, or for which a copy thereof is attached.

[Page 1 of 2]

This collection of information is required by 37 CFR 3.73(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.**

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STATEMENT UNDER 37 CFR 3.73(c)

3. From: _____ To: _____

The document was recorded in the United States Patent and Trademark Office at
Reel _____, Frame _____, or for which a copy thereof is attached.

4. From: _____ To: _____

The document was recorded in the United States Patent and Trademark Office at
Reel _____, Frame _____, or for which a copy thereof is attached.

5. From: _____ To: _____

The document was recorded in the United States Patent and Trademark Office at
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6. From: _____ To: _____

The document was recorded in the United States Patent and Trademark Office at
Reel _____, Frame _____, or for which a copy thereof is attached.

☐ Additional documents in the chain of title are listed on a supplemental sheet(s).

☒ As required by 37 CFR 3.73(c)(1)(i), the documentary evidence of the chain of title from the original owner to the assignee was, or concurrently is being, submitted for recordation pursuant to 37 CFR 3.11.

[NOTE: A separate copy (i.e., a true copy of the original assignment document(s)) must be submitted to Assignment Division in accordance with 37 CFR Part 3, to record the assignment in the records of the USPTO. See MPEP 302.08]

The undersigned (whose title is supplied below) is authorized to act on behalf of the assignee.

/Shuaimin Liu/

10/18/2021

Signature

Date

Shuaimin Liu

L1361

Printed or Typed Name

Title or Registration Number

Electronic Patent Application Fee Transmittal				
Application Number:				
Filing Date:				
Title of Invention:		METHODS AND SYSTEMS FOR INTERACTIVE CONTENT CREATION		
First Named Inventor/Applicant Name:		Nicholas Kingsley Mason		
Filer:		Shuaimin Liu/Joan Abriam		
Attorney Docket Number:		56000-701.301		
Filed as Large Entity				
Filing Fees for Track I Prioritized Examination - Nonprovisional Application under 35 USC 111(a)				
Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
Basic Filing:				
UTILITY APPLICATION FILING	1011	1	320	320
UTILITY SEARCH FEE	1111	1	700	700
UTILITY EXAMINATION FEE	1311	1	800	800
REQUEST FOR PRIORITIZED EXAMINATION	1817	1	4200	4200
Pages:				
Claims:				
Miscellaneous-Filing:				

Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
PUBL. FEE- EARLY, VOLUNTARY, OR NORMAL	1504	1	0	0
PROCESSING FEE, EXCEPT PROV. APPLS.	1830	1	140	140
Petition:				
Patent-Appeals-and-Interference:				
Post-Allowance-and-Post-Issuance:				
Extension-of-Time:				
Miscellaneous:				
Total in USD (\$)				6160

Electronic Acknowledgement Receipt

EFS ID:	44053591
Application Number:	17503675
International Application Number:	
Confirmation Number:	7023
Title of Invention:	METHODS AND SYSTEMS FOR INTERACTIVE CONTENT CREATION
First Named Inventor/Applicant Name:	Nicholas Kingsley Mason
Customer Number:	21971
Filer:	Shuaimin Liu/Joan Abriam
Filer Authorized By:	Shuaimin Liu
Attorney Docket Number:	56000-701.301
Receipt Date:	18-OCT-2021
Filing Date:	
Time Stamp:	14:16:38
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	DA
Payment was successfully received in RAM	\$6160
RAM confirmation Number	E20210HE17053796
Deposit Account	232415
Authorized User	Joan Abriam

The Director of the USPTO is hereby authorized to charge indicated fees and credit any overpayment as follows:

37 CFR 1.21 (Miscellaneous fees and charges)

37 CFR 1.19 (Document supply fees)

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IPR2026-00403

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Transmittal of New Application	Turtl_56000_701_301_Transmittal.pdf	316639	no	2
			667d13cdd9da533a932a7c70a9f76116434cafb9		
Warnings:					
Information:					
2	TrackOne Request	Turtl_56000_701_301_Track_One_Request.pdf	121776	no	1
			6038ae2bb63d8f5d8d04ab9ff0d9121f2369cbdb		
Warnings:					
Information:					
3	Application Data Sheet	Turtl_56000_701_301_ADS.pdf	1464908	no	8
			e7edf6ff655ace92fa77715f169495ea88155eb		
Warnings:					
Information:					
4		Turtl_56000_701_301_Application.pdf	296608	yes	38
			b73ea6b4431820ea5ae115b8d6117a66ae86ac6d		
	Multipart Description/PDF files in .zip description				
	Document Description		Start	End	
	Specification		1	34	
	Claims		35	37	
	Abstract		38	38	
Warnings:					
Information:					
5	Drawings-only black and white line drawings	Turtl_56000_701_301_Drawings.pdf	1992761	no	20
			d0bcbf8e99569532bd40094640e7bbc626d07060		

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Warnings:					
Information:					
6	Oath or Declaration filed	Turtl_56000_701_301_Declaration.pdf	280193 2bd5efd10695a2f30d5e349106c3ebef9f2bf650	no	1
Warnings:					
Information:					
7		Turtl_56000_701_301_POA_and_373c.pdf	1345003 91ee3facad246879775d03392c6141e589a0b02f	yes	4
	Multipart Description/PDF files in .zip description				
	Document Description		Start	End	
	Power of Attorney		1	2	
	Assignee showing of ownership per 37 CFR 3.73		3	4	
Warnings:					
Information:					
8	Fee Worksheet (SB06)	fee-info.pdf	50970 8c2b73d1cb2f8698c9bd24a70b182ff2668c0cdb	no	2
Warnings:					
Information:					
Total Files Size (in bytes):			5868858		
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.					

Substitute for form 1449/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use as many sheets as necessary)				Complete if Known	
				Application Number	17/503,675
				Filing Date	10-18-2021
				First Named Inventor	MASON; Nicholas Kingsley
				Art Unit	2854
				Examiner Name	Not Yet Assigned
				Attorney Docket Number	56000-701.301
Sheet	1	of	4		

U. S. PATENT DOCUMENTS					
Examiner Initials*	Cite No. ¹	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code ² (if known)			
	001	US-8752086	06-10-2014	CONANT; Carson Victor	
	002	US-9727618	08-08-2017	SHARP; Oliver et al.	
	003	US-9792270	10-17-2017	KLOIBER; Daniel J. et al.	
	004	US-20040015408	01-22-2004	RAUEN, IV; Philip Joseph et al.	
	005	US-20140278758	09-18-2014	CHRISTIANSEN; Bradley et al.	
	006	US-20170325006	11-09-2017	MARCUS; Dwight	
	007	US-20180268253	09-20-2018	HOFFMAN; Raphael et al.	
	008	US-20190259107	08-22-2019	HOLLIS; Richard B. et al.	
	009	US-20190347668	11-14-2019	WILLIAMS; Jared et al.	

FOREIGN PATENT DOCUMENTS						
Examiner Initials*	Cite No. ¹	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages Or Relevant Figures Appear	T ⁶
		Country Code ³ Number ⁴ Kind Code ⁵ (if known)				
	001	EP-3276506-A1	01-31-2018	TURL SURF & IMMERSE LTD [GB]		☐

Examiner Signature		Date Considered	
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*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. ¹ Applicant's unique citation designation number (optional). ² See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached. 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 2 hours 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, 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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Substitute for form 1449/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use as many sheets as necessary)				Complete if Known	
				Application Number	17/503,675
				Filing Date	10-18-2021
				First Named Inventor	MASON; Nicholas Kingsley
				Art Unit	2854
				Examiner Name	Not Yet Assigned
Sheet	2	of	4	Attorney Docket Number	56000-701.301

NON-PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. ¹	Include name of the author(in CAPITAL LETTERS),title of the article(when appropriate), title of the item (book,magazine,journal,serial,symposium,catalog,etc.),date,page(s),volume-issue number(s),publisher, city and/or country where published.	T ²
	001	Co-pending U.S. Application No. 17/347,899, inventor MASON; Nicholas Kingsley, filed on June 15, 2021.	☐

Examiner Signature		Date Considered	
--------------------	--	-----------------	--

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. 1 Applicant's unique citation designation number (optional). 2 Applicant is to place a check mark here if English language Translation is attached. This collection of information is required by 37 CFR 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 2 hours 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, 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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				Art Unit	2854
				Examiner Name	Not Yet Assigned
				Attorney Docket Number	56000-701.301
Sheet	3	of	4		

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.

- ☐ 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	/Shuaimin Liu/	Date (YYYY-MM-DD)	2021-10-19
Name/Print	Shuaimin Liu	Registration Number	L1361

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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 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.

(19)



(11)

EP 3 276 506 A1

(12)

EUROPEAN PATENT APPLICATION

(43) Date of publication:

31.01.2018 Bulletin 2018/05

(51) Int Cl.:

G06F 17/30 (2006.01)

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PL PT RO RS SE SI SK SM TR**

Designated Extension States:

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Designated Validation States:

MA MD

(71) Applicant: **Turtl Surf & Immerse Limited**
London EC1V 2NX (GB)

(72) Inventor: **Mason, Nick**
St. Albans, AL3 5NQ (GB)

(74) Representative: **Noble, Frederick**
Albright IP Limited
County House
Bayshill Road
Cheltenham, Glos. GL50 3BA (GB)

(30) Priority: **28.07.2016 GB 201613052**

(54) METHOD OF PROCESSING A BLOCK OF TEXT IN A WEB LAYOUT

(57) A computer-implemented method of displaying a web page in a web browser, where the web page includes one or more blocks, each block including information about the content of the block and also the required vertical height of the block, the method including the processing of each block by carrying out the steps of:
rendering the content of the block in the browser;
determining the actual vertical height of the block as rendered in the browser
comparing the actual vertical height of the block with the required vertical height of the block;
if the difference between the actual and required vertical heights is not within a predetermined tolerance, making adjustments to display properties of the content of the block to alter the actual vertical height of the block.

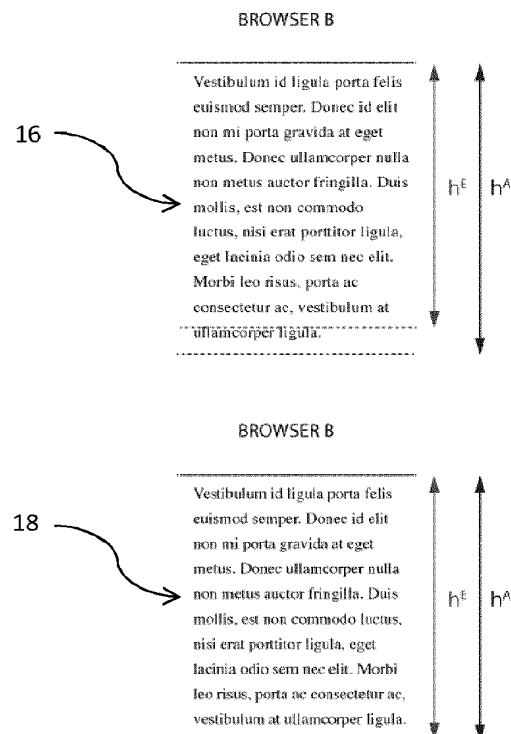


Figure 3

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Description

[0001] The present invention relates to processing a block of text in a web layout to achieve a consistent display on a wide range of browsers and devices.

BACKGROUND TO THE INVENTION

[0002] HTML (Hypertext Markup Language) is designed to allow the definition of the content of web pages, which can then be displayed on multiple browsers. HTML also includes some ability to define aspects of the presentation of a page, although in the last 15 years at least this has been substantially supplanted by the use of CSS (Cascading Style Sheets) to define presentation, leaving HTML to define only content.

[0003] Whether or not presentation cues are included in HTML or accompanying CSS files for a particular web page, the actual appearance of a web page almost always varies to some extent between browsers. The rendering engine of the browser will make hundreds of decisions to determine, for example, the shape, height and width of each character. This is by design, and it allows the user reading the web page to exercise some level of control over the appearance to suit his personal needs or preferences. For example, he may use the 'zoom' tool on the browser to increase or reduce the text size, or adjust the display colours for higher contrast. The browser will also take account of the size of the screen or window to display the web page appropriately on the device.

[0004] This system, where content is defined by the author and presentation is left (to some extent) with the reader, subject to presentational 'cues' from the author, generally works well on traditional 'scrolling' websites where content flows down the page until it has all been displayed. However, with more complex types of layout, problems arise. For example, in a multi-column layout it may be important for all of a particular block of text to start and end in the first column. It would ruin the layout if this block of text were to spill into the next column. This is because all subsequent elements will have to move, causing unintended and ugly rendering. However, it is difficult to control the vertical height of blocks of text because the width of characters in particular is generally determined by the rendering engine of the browser. If one browser sets the character width slightly wider than another, then the text will flow onto more lines and the block of text will require more vertical space.

[0005] Of course, it is possible to use alternative technologies to specify layouts of pages, or parts of pages, exactly. A simple way of doing this is to present the page as an image. At one time it was reasonably common to use Adobe (RTM) Flash to create whole web sites where the presentation as well as the content was exactly defined. However, these techniques have serious drawbacks. Firstly, they reduce the ability of the user and the user's browser to control the layout of the page to such an extent that beneficial changes, for example to take

account of the screen size or user's needs, cannot be made. They may also prevent ordinary browser tools such as the 'forward' and 'back' navigation buttons, bookmarks, searching within a page, printing, etc. from working correctly.

[0006] Another technique which has been used to try to ensure consistent layout across a range of browsers is to test the web page in multiple browsers, and add browser-specific presentation cues to the web page. For example, the web server may be configured to send one style sheet in response to requests from the Internet Explorer (RTM) web browser, and another slightly different style sheet in response to requests from the Firefox (RTM) web browser. Alternatively browser detection and choice of presentation properties may be done using JavaScript running on the web page. However, this technique relies on manually determining multiple configurations for different browsers, which is time-consuming and tedious. The result is also not very comprehensive, because there is inevitably a limit to the number of different browsers and versions of browsers which can reasonably be accounted for. New browsers and versions will require this work to be repeated.

[0007] It is an object of the present invention to control the vertical space taken up by parts of a web page, whilst retaining the ordinary controls and accessibility available with HTML / CSS web pages.

SUMMARY OF THE INVENTION

[0008] According to the present invention, there is provided a computer-implemented method of displaying a web page in a web browser, the web page including one or more blocks, each block including information about the content of the block and also the required vertical height of the block; the method including processing each block by carrying out the steps of:

rendering the content of the block in the browser;

determining the actual vertical height of the block as rendered in the browser;

comparing the actual vertical height of the block with the required vertical height of the block;

if the actual and required vertical height are not within a predetermined tolerance, making adjustments to display properties of the content of the block to alter the actual vertical height of the block.

[0009] The required vertical height of the block may be defined and stored within the web page source in absolute or relative terms, for example, it may be given as a number of pixels or millimetres, or may be defined as a percentage of the screen or window height.

[0010] Each block is rendered in the usual way by the

browser, taking into account any presentation cues provided in the page source, most likely as part of a CSS style sheet. The actual vertical height of the block as rendered will depend on the presentation cues on the web page, and also to some extent on the rendering engine and browser being used, and the settings of that browser. When the block is rendered the actual vertical height is determined. This is compared against the required vertical height of the block as stored in the web page, and if the actual and required vertical heights do not match (within the predetermined tolerance) then display properties are adjusted to bring the actual height in line with the vertical height. The display properties which are adjusted may include, for example, combinations of letter spacing, word spacing and font size. The adjustments are preferably made iteratively, on a small scale which will usually be undetectable to most users. For example, if the comparison identifies that the actual height of the block is too large, then the letter spacing may be reduced by, say, 2 pixels. The actual height is then measured again and the comparison is made. If the block is still too large, then another change could be made, for example reducing the font size very slightly. The iterative process of adjustment and re-measurement ensures that only minimal changes are made to the display properties of the block in order to adjust its vertical height correctly. Small changes to multiple properties may be made, which may be less noticeable than making a larger change to a single property. For example, reducing both the character spacing and line spacing by a small amount may be enough to reduce the actual vertical height to the required vertical height, but less noticeable than reducing the line spacing alone by a larger amount.

[0011] The process of measuring the actual vertical height of a block, making the comparison and (iteratively) making changes to display properties is preferably implemented by JavaScript embedded in the web page.

[0012] Preferably, the required height of the block is given in the height property of the block. The process of measuring the actual height of the block and comparing it with the required height may include the steps of comparing the actual height of the the block (the scrollHeight property) to the required height to detect if the block is too tall (i.e. the scrollHeight is greater than the height property). If the block is not too tall then the process may further include the step of removing the height property from the block (having first saved its value for later recall), and then comparing the actual height of the block (the scrollHeight property) to the required height to detect if the block is too short.

[0013] A web page can be assembled in the usual way, using any one of the wide variety of available web design packages, setting the height property for each element to achieve the desired layout. JavaScript can then be added to the page which effectively enforces the height property applied to each block as an exact height of the block, with text filling the block. This is in contrast to the known use of the height property, which defines the

height of the block, but no guarantee that text will fill the block, or that the text will all fit within the block.

[0014] When a measurement is made of the actual height of the block (for example by reading the scrollHeight property from the browser), the result may preferably be rounded to the nearest multiple of the height of a line of text. The height of a line of text can be obtained separately from the browser. Rounding the block height to the nearest multiple of the line height ensures consistent reporting of the block height, despite different browsers measuring block height in different ways.

[0015] Preferably, required heights are automatically adjusted in response to the zoom control of the browser being adjusted. For example, if the zoom control is set at 50% (i.e. to make the text size 50% smaller), then all required heights will be adjusted to make them 50% smaller as well. This ensures that the layout is preserved when the text size is changed by the user with the browser's zoom control.

[0016] The required vertical height of a block is embedded in the web page source when it is created. Preferably, this is done automatically using layout software which allows the author to set up the layout on the screen in the same way as a 'what-you-see-is-what-you-get' desktop publishing package. The author sets up the layout, and the height of each block of text as seen by the author on their screen is recorded and stored in the web page source. Preferably, this is done by setting the height property of each block.

[0017] It is envisaged that the invention is primarily useful to control the height of blocks of text, or blocks containing mostly text, although some embodiments may be applicable to blocks consisting of or containing other types of content, for example equations or tables. The vertical height may be stored and measured, and display properties may be adjusted, in a similar way.

[0018] The invention allows normalisation of the height of each block across all browsers and devices. It makes it possible to design multiple-column layouts for web pages, which display consistently across a range of browsers without having to hard-code different instructions for different browsers, and without making ordinary user-adjustments provided by the browser unavailable.

DESCRIPTION OF THE DRAWINGS

[0019] For a better understanding of the present invention, and to show more clearly how it may be carried into effect, a preferred embodiment will now be described with reference to the accompanying drawings, in which:

Figure 1 shows a block of text, part of a web page, as it is laid out by the page author;

Figure 2 shows the block of text as rendered in first and second web browsers;

Figure 3 shows the block of text as rendered by the

second web browser after each of two consecutive iterations of the adjustment step in the method of the invention.

DESCRIPTION OF THE PREFERRED EMBODIMENT

[0020] Referring firstly to Figure 1, an example block of text is indicated at 10. The block of text 10 forms part of a web page, which is being designed by an author in 'what-you-see-is-what-you-get' layout software. The layout software allows the author to set the height h of the block of text, bearing in mind the overall layout of the web page and the other elements on the page. The required height h of the block of text is then stored, along with the content of the block, as part of the page source. The page source as generated and stored by the layout software also includes JavaScript code which automatically runs in client browsers when the web page is displayed. The JavaScript code carries out the steps of the method of the invention as described below.

[0021] When the page is first downloaded by a browser, the block of text is rendered in the usual way. Although the page source may include various presentational cues, the rendering of the block of text will vary to some degree depending on the browser being used.

[0022] In particular, the height property will be used by the browser to set the height of each block, but the text within the block may not always fill the block, i.e. the text may be too short. On the other hand, if the text is too long to fit in the block then the text will 'overflow' the block.

[0023] In Figure 2, two slightly different renderings of the same block are shown side-by-side. Browser A's rendering 12, on the left, has resulted in a slightly shorter actual vertical height h^A than Browser B's rendering 14, on the right. This is because of slight differences in character spacing, line spacing, font size, and hyphenation practice between Browser A and Browser B. Once the page has been loaded and rendered, the JavaScript code embedded in the page runs, and initially queries the browser to determine the actual vertical height h^A of the block of text. The actual vertical height h^A is determined by reading the scrollHeight property of the block from the browser. If the scrollHeight property is larger than the height property, then the block is too tall. Otherwise, the height property will be removed from the block, causing it to shrink to the height of its contents, and then scrollHeight read again. If scrollHeight is shorter than the required height, then the block is too short.

[0024] The JavaScript code carries out a comparison between the 'measured' actual height h^A and the required / 'expected' height h^E which is defined in the page source. In the case of Browser A in this example, h^A is the same as h^E and therefore no adjustment is necessary. However, in the case of Browser B, h^A is substantially (more than the predetermined tolerance threshold) greater than h^E and therefore the adjustment step will have to be carried out.

[0025] Note that h^A is said to be the same as h^E if h^A

rounded to the nearest multiple of the line height is the same as h^E . The line height can be determined from the browser separately.

[0026] Small adjustments to properties of the text in the block are made iteratively in order to reduce h^A so that it is within the predetermined tolerance margin when compared with h^E . First, the letter spacing is reduced by 2 pixels and the block re-rendered. The re-rendered block 16 is shown in Figure 3. The measurement of the actual height h^A of the block is carried out on the re-rendered block 16, and the comparison with the required height h^E is made. In this case, despite the adjustment, h^A is still substantially greater than h^E . The adjustment and re-measurement step is therefore iterated again. In this example the adjustment is a further reduction in letter spacing by 2 pixels, but in different embodiments the adjustments in each iteration may not necessarily be the same. For example, it may be better to make small changes to each of line spacing, letter spacing, and font size than it is to make a relatively large change only to letter spacing. The adjustment may be chosen based on one or more rules to prioritise the types of changes. For example, a rule may state that the letter spacing will never be changed by an overall amount of more than 4 pixels. If the actual height of the block of text is still too large when the letter spacing has been reduced by a total of 4 pixels, another adjustment will have to be made in the next iteration, for example a reduction to the font size.

[0027] The invention allows a multi-column layout to be reliably displayed on a wide range of web browsers and devices, whilst still sending standard HTML to the browser and not relying on technologies which unacceptably hinder the user's ability to customise the display and use accessibility tools. In particular, the invention allows for a wide range of different layouts, other than the traditional vertically-scrolling layout. For example, a layout which scrolls horizontally, like turning the pages of a book, can be reliably implemented by accurately controlling the vertical size of blocks of text.

[0028] The embodiments described above are provided by way of example only, and various changes and modifications will be apparent to persons skilled in the art without departing from the scope of the present invention as defined by the appended claims.

Claims

1. A computer-implemented method of displaying a web page in a web browser,

the web page including one or more blocks, each block including information about the content of the block and also the required vertical height of the block,

the method including the processing of each block by carrying out the steps of:

rendering the content of the block in the browser;
determining the actual vertical height of the
block as rendered in the browser
comparing the actual vertical height of the block
with the required vertical height of the block;
if the difference between the actual and required
vertical heights is not within a predetermined tol-
erance, making adjustments to display proper-
ties of the content of the block to alter the actual
vertical height of the block.

2. A method of displaying a web page in a web browser
as claimed in claim 1, in which the required height
is stored in the *height* property of the block and in
which determining the actual vertical height of the
block and comparing it to the required vertical height
of the block comprises the steps of:

reading the *scrollHeight* property of the block
from the browser;
comparing the *scrollHeight* property to the
height property, and if the *scrollHeight* property
is greater than the *height* property then deter-
mining that the block is too tall; otherwise
removing the *height* property from the block;
reading the *scrollHeight* property of the block
from the browser;
comparing the *scrollHeight* property and the re-
quired height, and if the *scrollHeight* property is
smaller than the required height then determin-
ing that the block is too short.

3. A method of displaying a web page in a web browser
as claimed in any of claims claim 1 or claim 2, in
which the height of a line of text in the block is de-
termined from the browser, and the measured actual
vertical height is rounded to the nearest multiple of
the line height before being compared with the re-
quired block height.

4. A method of displaying a web page in a web browser
as claimed in any of claims 1 to 3, in which the display
properties which are adjusted include letter spacing.

5. A method of displaying a web page in a web browser
as claimed in any of the preceding claims, in which
the display properties which are adjusted include
word spacing.

6. A method of displaying a web page in a web browser
as claimed in any of the preceding claims, in which
the display properties which are adjusted include font
size.

7. A method of displaying a web page in a web browser
as claimed in any of the preceding claims, in which
the display properties which are adjusted include
more than one of letter spacing, word spacing and

font size.

8. A method of displaying a web page in a web browser
as claimed in any of the preceding claims, in which
the steps of rendering, determining actual height,
comparing and adjusting are carried out iteratively
until the actual height is within the predetermined
tolerance of the required height.

9. A method of displaying a web page in a web browser
as claimed in claim 8, in which a different display
property is adjusted on each iteration of the method.

10. An apparatus comprising means adapted to perform
the method of any preceding claim.

11. A program for controlling an apparatus to perform a
method as claimed in any of claims 1 to 9, carried
on a carrier medium such as a storage medium or a
transmission medium.

12. A method substantially as described herein, with ref-
erence to and as illustrated in Figures 1 to 3 of the
accompanying drawings.

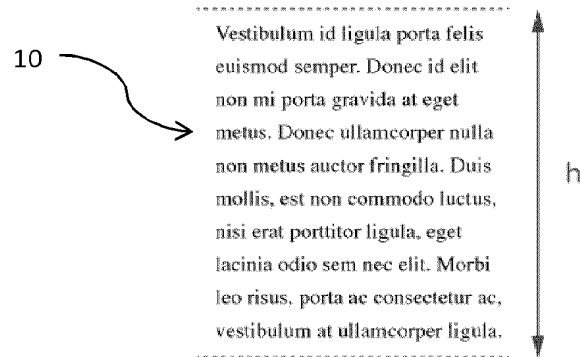


Figure 1

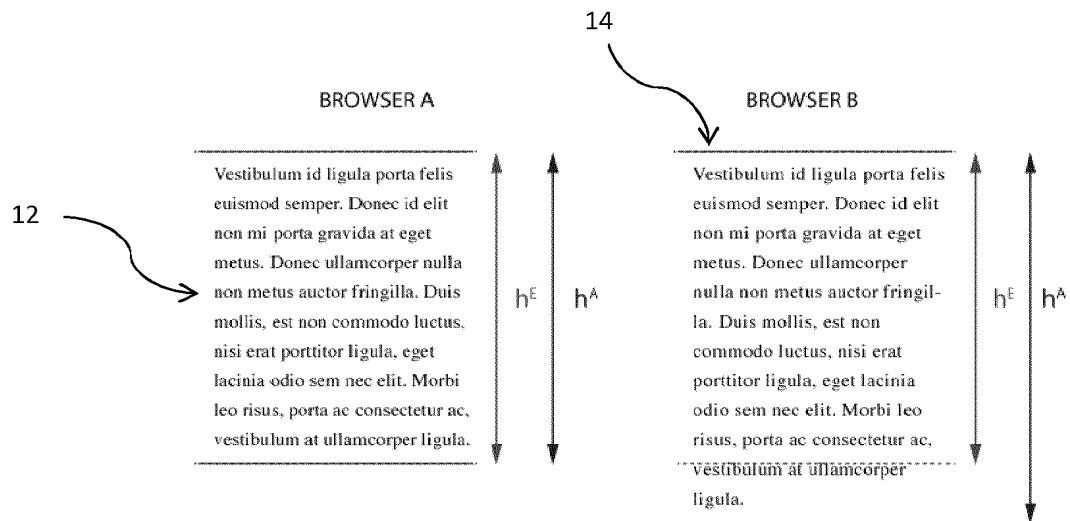
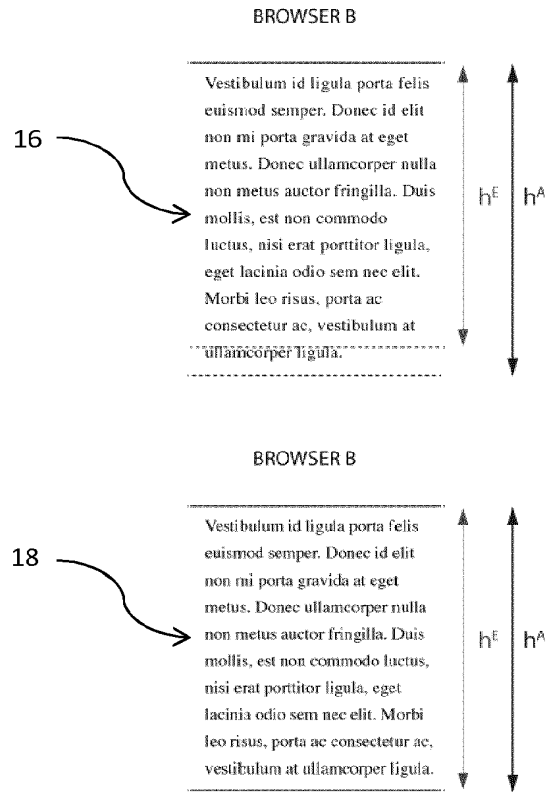


Figure 2

Figure 3



EUROPEAN SEARCH REPORT

Application Number
EP 17 16 9501

5

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
X	Ben Clarke: "Fit text container Fiddle", 12 January 2016 (2016-01-12), XP055420766, Retrieved from the Internet: URL:https://web.archive.org/web/20160112041837/http://jsfiddle.net:80/LrCFY/3 [retrieved on 2017-11-01] * "HTML" * * "Javascript" * * "CSS" *	1-12	INV. G06F17/30
A	Anonymous: "Height properties", 21 February 2015 (2015-02-21), XP055420909, Retrieved from the Internet: URL:https://web.archive.org/web/20150221032820/http://www.webdeveloper.com/forum/showthread.php?171659-offsetHeight-clientHeight-what-about-height [retrieved on 2017-11-01] * page 1 *	2	TECHNICAL FIELDS SEARCHED (IPC) G06F
A	Simon Pascal Klein: "Tracking - CSS letter-spacing and Where to Use It", 12 June 2014 (2014-06-12), XP055421488, Retrieved from the Internet: URL:https://web.archive.org/web/20140612023812/https://www.sitepoint.com/tracking-css-letter-spacing-and-where-to-use-it/ [retrieved on 2017-11-03] * page 1 - paragraph 1 * * "The letter-spacing property" *	4,5,7,9	
The present search report has been drawn up for all claims			
Place of search The Hague		Date of completion of the search 9 November 2017	Examiner Martínez Espuche, F
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document			

EPO FORM 1503 03.82 (P04C01)

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EUROPEAN SEARCH REPORT

Application Number
EP 17 16 9501

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DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
A	W3schools.Com: "CSS Reference", 2 July 2011 (2011-07-02), XP055421481, Retrieved from the Internet: URL:https://web.archive.org/web/20110702011619/https://www.w3schools.com/cssref/default.asp [retrieved on 2017-11-03] * "Font Properties"; page 3 * * "Text Properties"; page 6 * -----	4,5,7,9	
			TECHNICAL FIELDS SEARCHED (IPC)
The present search report has been drawn up for all claims			
Place of search The Hague		Date of completion of the search 9 November 2017	Examiner Martínez Espuche, F
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document			

Electronic Acknowledgement Receipt

EFS ID:	44064379
Application Number:	17503675
International Application Number:	
Confirmation Number:	7023
Title of Invention:	METHODS AND SYSTEMS FOR INTERACTIVE CONTENT CREATION
First Named Inventor/Applicant Name:	Nicholas Kingsley Mason
Customer Number:	21971
Filer:	Shuaimin Liu/Amie Forsberg
Filer Authorized By:	Shuaimin Liu
Attorney Docket Number:	56000-701.301
Receipt Date:	19-OCT-2021
Filing Date:	
Time Stamp:	12:54:10
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		IDS56000-701-301-10-19-21. pdf	334338	yes	8
			6c0ea126e03236c4018d5a2007b0fe4447a a8688		

	Multipart Description/PDF files in .zip description								
	Document Description		Start	End					
	Transmittal Letter		1	4					
	Information Disclosure Statement (IDS) Form (SB08)		5	8					
Warnings:									
Information:									
2	Foreign Reference	EP3276506A1_EFS.pdf	524165	no	9				
			b0647593855d6fc1cf23d759250e0d18613ee096						
Warnings:									
Information:									
3	Non Patent Literature	US17347899.pdf	3468570	no	69				
			85f14414e8e8b3cc62a446c91efd3299e85fd03f						
Warnings:									
Information:									
Total Files Size (in bytes):			4327073						
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.									

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Inventor: MASON; Nicholas
Kingsley

Serial Number: 17/503,675

Filing or 371 (c) Date: 2021-10-18

Title: METHODS AND
SYSTEMS FOR
INTERACTIVE
CONTENT
CREATION

Group Art Unit: 2854

Examiner: Not Yet Assigned

CONFIRMATION NO: 7023

FILED ELECTRONICALLY ON: October 19, 2021

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

INFORMATION DISCLOSURE STATEMENT
UNDER 37 CFR § 1.97

Commissioner for Patents:

An Information Disclosure Statement along with attached PTO/SB/08 is hereby submitted. A copy of each listed publication is submitted, if required, pursuant to 37 CFR §§1.97-1.98, as indicated below.

The Examiner is requested to review the information provided and to make the information of record in the above-identified application. The Examiner is further requested to initial and return the attached PTO/SB/08 in accordance with MPEP § 609.

The right to establish the patentability of the claimed invention over any of the information provided herewith, and/or to prove that this information may not be prior art, and/or to prove that this information may not be enabling for the teachings purportedly offered, is hereby reserved.

This statement is not intended to represent that a search has been made or that the information cited in the statement is, or is considered to be, prior art or material to patentability as defined in § 1.56.

- A. ☒ *37 CFR § 1.97 (b)*. This Information Disclosure Statement should be considered by the Office because:
- ☐ (1) It is being filed within 3 months of the filing date of a national application and is other than a continued prosecution application under § 1.53 (d);
 - OR --
 - ☐ (2) It is being filed within 3 months of entry of the national stage as set forth in § 1.491 in an international application;
 - OR --
 - ☒ (3) It is being filed before the mailing of a first Office action on the merits;
 - OR --
 - ☐ (4) It is being filed before the mailing of a first Office action after the filing of a request for continued examination under § 1.114.
- B. ☐ *37 CFR § 1.97(c)*. Although this Information Disclosure Statement is being filed after the period specified in *37 CFR § 1.97(b)*, above, it is filed before the mailing date of the earlier of (1) a final office action under § 1.113, (2) a notice of allowance under § 1.311, or (3) an action that otherwise closes prosecution in the application, this Information Disclosure Statement should be considered because it is accompanied by one of:
- ☐ a statement as specified in §1.97 (e) provided concurrently herewith;
 - OR --
 - ☐ a fee of \$260.00 as set forth in § 1.17 (p) authorized below, enclosed, or included with the payment of other papers filed together with this statement.
- C. ☐ *37 CFR § 1.97 (d)*. Although this Information Disclosure Statement is being filed after the mailing date of the earlier of (1) a final office action under § 1.113, (2) a notice of allowance under § 1.311, or (3) an action that otherwise closes prosecution in the application, it is being filed before payment of the issue fee and should be considered because it is accompanied by:
- i. a statement as specified in § 1.97 (e);
 - AND --
 - ii. a fee of \$260.00 as set forth in §1.17(p) is authorized below, enclosed, or included with the payment of other papers filed together with this Statement.
- D. ☐ *37 CFR §1.97 (e)*. Statement.
- ☐ A statement is provided herewith to satisfy the requirement under 37 CFR §§ 1.97 (c);
 - AND/OR --
 - ☐ A statement is provided herewith to satisfy the requirement under 37 CFR §§ 1.97 (d);
 - AND/OR --
 - ☐ A copy of a dated communication from a foreign patent office clearly showing that the information disclosure statement is being submitted within 3 months of the filing date on the communication is provided in lieu of a statement under 37 C.F.R. § 1.97(e) (1) as provided for under MPEP 609.04(b) V.

- E. ☐ *Statement Under 37 C.F.R. §1.704(d)*. Each item of information contained in the information disclosure statement was first cited in any communication from a patent office in a counterpart foreign or international application or from the Office or is a communication that was issued by a patent office in a counterpart foreign or international application or by the Office that was received by an individual designated in § 1.56(c) not more than thirty (30) days prior to the filing of this information disclosure statement. This statement is made pursuant to the requirements of 37 C.F.R. §1.704(d) to avoid reduction of the period of adjustment of the patent term for Applicant(s) delay.
- F. ☒ *37 CFR §1.98 (a) (2)*. The content of the Information Disclosure Statement is as follows:
- ☐ Copies of each of the references listed on the attached Form PTO/SB/08 are enclosed herewith.
- OR --
- ☒ Copies of U.S. Patent Documents (issued patents and patent publications) listed on the attached Form PTO/SB/08 are not enclosed.
- AND/OR --
- ☒ Copies of Foreign Patent Documents and/or Non Patent Literature Documents listed on the attached Form PTO/SB/08 are enclosed in accordance with 37 CFR §1.98 (a)(2).
- AND/OR --
- ☒ Copies of pending unpublished U.S. patent applications are enclosed in accordance with 37 CFR §1.98 (a) (2) (iii).
- G. ☐ *37 CFR §1.98(a)(3)*. The Information Disclosure Statement includes non-English patents and/or references.
- ☐ Pursuant to 37 CFR §1.98(a)(3)(i), a concise explanation of the relevance of each patent, publication or other information provided that is not in English is provided herewith.
- ☐ Pursuant to MPEP 609(B), an English language copy of a foreign search report is submitted herewith to satisfy the requirement for a concise explanation where non-English language information is cited in the search report.
- OR --
- ☐ A concise explanation of the relevance of each patent, publication or other information provided that is not in English is as follows: _____
- ☐ Pursuant to 37 CFR §1.98(a) (3) (ii), a copy of a translation, or a portion thereof, of the non-English language reference(s) is provided herewith.
- H. ☐ *37 CFR §1.98(d)*. Copies of patents, publications and pending U.S. patent applications, or other information specified in 37 C.F.R. § 1.98(a) are not provided herewith because:
- ☐ Pursuant to 37 CFR §1.98(d)(1) the information was previously submitted in an Information Disclosure Statement, or cited by examiner for another application under which this application claims priority for an earlier effective filing date under 35 U.S.C. 120.
- Application in which the information was submitted: _____
- Information Disclosure Statement(s) filed on: _____
- AND
- ☐ The information disclosure statement submitted in the earlier application complied with paragraphs (a) through (c) of 37 CFR §1.98.

- I. ☒ *Fee Authorization.* The Commissioner is hereby authorized to charge the above-referenced fees of \$0.00 and charge any additional fees or credit any overpayment associated with this communication to Deposit Account No. 23-2415 (Docket No.56000-701.301).

Respectfully submitted,

WILSON SONSINI GOODRICH & ROSATI

Dated: October 19 , 2021_____

By: /Shuaimin Liu/
Shuaimin Liu
Reg. No. L1361

650 Page Mill Road
Palo Alto, CA 94304-1050
(650) 493-9300
Customer No. 21971_____

PATENT APPLICATION FEE DETERMINATION RECORD Substitute for Form PTO-875						Application or Docket Number 17/503,675				
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			N/A	320			
SEARCH FEE (37 CFR 1.16(k), (l), or (m))	N/A	N/A	N/A			N/A	700			
EXAMINATION FEE (37 CFR 1.16(o), (p), or (q))	N/A	N/A	N/A			N/A	800			
TOTAL CLAIMS (37 CFR 1.16(j))	20	minus 20 = *			OR	x 100 =	0.00			
INDEPENDENT CLAIMS (37 CFR 1.16(h))	2	minus 3 = *				x 480 =	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			
							0.00			
MULTIPLE DEPENDENT CLAIM PRESENT (37 CFR 1.16(j))							0.00			
			TOTAL			TOTAL	1820			
* 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.										



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APPLICATION NUMBER	FILING or 371(c) DATE	GRP ART UNIT	FIL FEE REC'D	ATTY. DOCKET NO	TOT CLAIMS	IND CLAIMS
17/503,675	10/18/2021	2854	1820	56000-701.301	20	2

CONFIRMATION NO. 7023

21971
WILSON SONSINI GOODRICH & ROSATI
650 PAGE MILL ROAD
PALO ALTO, CA 94304-1050

FILING RECEIPT



0000000129386931

Date Mailed: 10/28/2021

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

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

Inventor(s)

Nicholas Kingsley Mason, St Albans, UNITED KINGDOM;

Applicant(s)

Turtl Surf & Immerse Limited, London, UNITED KINGDOM;

Assignment For Published Patent Application

Turtl Surf & Immerse Limited, London, UNITED KINGDOM

Power of Attorney: The patent practitioners associated with Customer Number 021971

Domestic Priority data as claimed by applicant

This application is a CON of 17/347,899 06/15/2021
which claims benefit of 63/048,512 07/06/2020

Foreign Applications for which priority is claimed (You may be eligible to benefit from the **Patent Prosecution Highway** program at the USPTO. Please see <http://www.uspto.gov> for more information.) - None.

Foreign application information must be provided in an Application Data Sheet in order to constitute a claim to foreign priority. See 37 CFR 1.55 and 1.76.

Permission to Access Application via Priority Document Exchange: Yes

Permission to Access Search Results: Yes

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

If Required, Foreign Filing License Granted: 10/26/2021

The country code and number of your priority application, to be used for filing abroad under the Paris Convention, is **US 17/503,675**

Projected Publication Date: 02/03/2022

Non-Publication Request: No

Early Publication Request: No
Title

METHODS AND SYSTEMS FOR INTERACTIVE CONTENT CREATION

Preliminary Class

399

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

page 2 of 4

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

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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).

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
17/503,675	10/18/2021	Nicholas Kingsley Mason	56000-701.301	7023
21971	7590	11/01/2021		
WILSON SONSINI GOODRICH & ROSATI			EXAMINER	
650 PAGE MILL ROAD			CENTRAL, DOCKET	
PALO ALTO, CA 94304-1050				
			ART UNIT	PAPER NUMBER
			OPAP	
			NOTIFICATION DATE	DELIVERY MODE
			11/01/2021	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):

patentdocket@wsgr.com

<i>Decision Granting Request for Prioritized Examination (Track I)</i>	Application No. 17/503,675	Applicant(s) Mason, Nicholas Kingsley	
	Examiner CHERYL P GIBSON BAYLOR	Art Unit OPET	AIA (FITF) Status Yes

1. THE REQUEST FILED 18 October 2021 IS **GRANTED** .

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

A. ☒ for an original nonprovisional application (Track I).

B. ☐ for an application undergoing continued examination (RCE).

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

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

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

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

D. filing a notice of appeal;

E. filing a request for suspension of action;

F. mailing of a notice of allowance;

G. mailing of a final Office action;

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

I. abandonment of the application.

Telephone inquiries with regard to this decision should be directed to CHERYL GIBSON BAYLOR at (571)272-3213. In his/her absence, calls may be directed to Petition Help Desk at (571) 272-3282.

/CHERYL GIBSON BAYLOR/ Paralegal Specialist, OPET	
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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
17/503,675	10/18/2021	Nicholas Kingsley Mason	56000-701.301	7023
21971 7590 12/22/2021 WILSON SONSINI GOODRICH & ROSATI 650 PAGE MILL ROAD PALO ALTO, CA 94304-1050			EXAMINER MRABI, HASSAN	
			ART UNIT 2144	PAPER NUMBER
			NOTIFICATION DATE 12/22/2021	DELIVERY MODE 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):

patentdocket@wsgr.com

Office Action Summary

Application No.

17/503,675

Applicant(s)

Mason, Nicholas Kingsley

Examiner

HASSAN MRABI

Art Unit

2144

AIA (FITF) Status

Yes

-- 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 10/18/2021.

☐ 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) 1-20 is/are pending in the application.

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

6) ☐ Claim(s) ____ is/are allowed.

7) ☒ Claim(s) 1-20 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 10/18/2021 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)

3) ☐ Interview Summary (PTO-413)

Paper No(s)/Mail Date ____.

2) ☒ Information Disclosure Statement(s) (PTO/SB/08a and/or PTO/SB/08b)

4) ☐ Other: ____.

Paper No(s)/Mail Date 10/19/2021.

Notice of Pre-AIA or AIA Status

1. The present application, filed on or after March 16, 2013, is being examined under the first inventor to file provisions of the AIA.

DETAILED ACTION

2. This Office Action is sent in response to Application's Communication received on 10/18/2021 for application number 17/503675. The Office hereby acknowledges receipt of the following and placed of record in file: Specification, Drawing, Abstract, Oath/Declaration, and Claims.
3. Claims (1-14) and (15-20) are presented for examination.

Priority

4. Acknowledgment is made of applicant's claim that the application is a continuation of 17347899, filed 06/15/2021. 17347899 claims Priority from Provisional Application 63048512, filed 07/06/2020.

Claim Interpretation - 35 USC § 112

5. The following is a quotation of 35 U.S.C. 112(f):

(f) Element in Claim for a Combination. – An element in a claim for a combination may be expressed as a means or step for performing a specified function without the recital of structure, material, or acts in support thereof, and such claim shall be construed to cover the corresponding structure, material, or acts described in the specification and equivalents thereof.

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

An element in a claim for a combination may be expressed as a means or step for performing a specified function without the recital of structure, material, or acts in support thereof, and such claim shall be construed to cover the corresponding structure, material, or acts described in the specification and equivalents thereof.

Use of the word “means” (or “step for”) in a claim with functional language creates a rebuttable presumption that the claim element is to be treated in accordance with 35 U.S.C. 112(f) (pre-AIA 35 U.S.C. 112, sixth paragraph). The presumption that 35 U.S.C. 112(f) (pre-AIA 35 U.S.C. 112, sixth paragraph) is invoked is rebutted when the function is recited with sufficient structure, material, or acts within the claim itself to entirely perform the recited function.

Absence of the word “means” (or “step for”) in a claim creates a rebuttable presumption that the claim element **is not** to be treated in accordance with 35 U.S.C. 112(f) (pre-AIA 35 U.S.C. 112, sixth paragraph). The presumption that 35 U.S.C. 112(f) (pre-AIA 35 U.S.C. 112, sixth paragraph) is not invoked is rebutted when the claim element recites function but fails to recite sufficiently definite structure, material or acts to perform that function.

Claim elements in this application that use the word “means” (or “step for”) are presumed to invoke 35 U.S.C. 112(f) except as otherwise indicated in an Office action. Similarly, claim elements that do not use the word “means” (or “step for”) are presumed not to invoke 35 U.S.C. 112(f) except as otherwise indicated in an Office action.

6. Independent claim 15 describes claim limitations “a first component...” and “a second component...” which have been interpreted under 35 U.S.C. 112(f) or pre-AIA 35 U.S.C. 112, sixth paragraph, because they use a generic placeholder coupled with functional language “perform

and/or configured” without reciting sufficient structure to achieve the function. Furthermore, the generic placeholder is not preceded by a structural modifier.

Since the claim limitations invokes 35 U.S.C. 112(f) or pre-AIA 35 U.S.C. 112, sixth paragraph, independent claim 15 has been interpreted to cover the corresponding structure described in the specification that achieves the claimed function, and equivalents thereof.

A review of the specification shows that the following appears to be the corresponding structure described in the specification for the 35 U.S.C. 112(f) or pre-AIA 35 U.S.C. 112, sixth paragraph limitation: Para. [0042-0044] of the specification describes the functional language as connected to physical hardware when each of the units are performing its duty.

By this interpretation, the examiner is satisfied with the description of the functional language and the use of sufficient structure as described in the specification of the application.

Thus, it appears that claim 15 is properly invoking 35 U.S.C. 112(f) or pre-AIA 35 U.S.C. 112, sixth paragraph.

For more information, see MPEP § 2173 *et seq.* and *Supplementary Examination Guidelines for Determining Compliance With 35 U.S.C. 112 and for Treatment of Related Issues in Patent Applications*, 76 FR 7162, 7167 (Feb. 9, 2011).

7. If applicant does not intend to have the claim limitation(s) treated under 35 U.S.C. 112(f) or pre-AIA 35 U.S.C. 112, sixth paragraph, applicant may amend the claim so that they will clearly not invoke 35 U.S.C. 112(f) or pre-AIA 35 U.S.C. 112, sixth paragraph, or present a sufficient showing that the claim recites/recite sufficient structure, material, or acts for performing the claimed function to preclude application of 35 U.S.C. 112(f) or pre-AIA 35 U.S.C. 112, sixth paragraph.

For more information, see MPEP § 2173 *et seq.* and *Supplementary Examination Guidelines for Determining Compliance With 35 U.S.C. 112 and for Treatment of Related Issues in Patent Applications*, 76 FR 7162, 7167 (Feb. 9, 2011).

Double Patenting

8. Claims 1-20 of this application is patentably indistinct from claim 1-20 of Application No. 17347899 Pursuant to 37 CFR 1.78(f), when two or more applications filed by the same applicant or assignee contain patentably indistinct claims, elimination of such claims from all but one application may be required in the absence of good and sufficient reason for their retention during pendency in more than one application. Applicant is required to either cancel the patentably indistinct claims from all but one application or maintain a clear line of demarcation between the applications. See MPEP § 822.

9. A rejection based on double patenting of the “same invention” type finds its support in the language of 35 U.S.C. 101 which states that “whoever invents or discovers any new and useful process... may obtain a patent therefor...” Thus, the term “same invention,” in this context, means an invention drawn to identical subject matter. See *Miller v. Eagle Mfg. Co.*, 151 U.S. 186 (1894); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); *In re Ockert*, 245 F.2d 467, 114 USPQ 330 (CCPA 1957).

A statutory type (35 U.S.C. 101) double patenting rejection can be overcome by canceling or amending the claims that are directed to the same invention so they are no longer coextensive in scope. The filing of a terminal disclaimer cannot overcome a double patenting rejection based upon 35 U.S.C. 101.

10. Claims 1-20 are provisionally rejected under 35 U.S.C. 101 as claiming the same invention as that of claims 1-20 of copending Application No. 17347899. This is a provisional statutory double patenting rejection since the claims directed to the same invention have not in fact been patented.

Claim Rejections - 35 USC § 103

11. The following is a quotation of 35 U.S.C. 103 which forms the basis for all obviousness rejections set forth in this Office action:

A patent for a claimed invention may not be obtained, notwithstanding that the claimed invention is not identically disclosed as set forth in section 102 of this title, if the differences between the claimed invention and the prior art are such that the claimed invention as a whole would have been obvious before the effective filing date of the claimed invention to a person having ordinary skill in the art to which the claimed invention pertains. Patentability shall not be negated by the manner in which the invention was made.

12. Claims 1-15 and 18-20 are rejected under AIA 35 U.S.C. 103(a) as being unpatentable over Hauser. US Patent Application Publication US 20110029858 A1 (hereinafter Hauser) in view of Shivakumar. US Patent Application Publication US 20150081611 A1 (hereinafter Shivakumar) and further in view of Rauber et al. US Patent Application Publication US 20090076834 A1 (hereinafter Rauber).

13. Regarding claim 1, Hauser teaches A system for automatically assembling an interactive document comprising **(Claim 1 text, wherein Hauser describes a computer system for automatically compiling content items in order to generate a personalized document)** a server in communication with a plurality of user devices over a network, wherein the server comprises: a memory for storing a set of software instructions, and one or more processors configured to execute the set of software instructions to **(FIG. 3, [0023], [0048-0052] wherein Hauser incorporates a processor and memory for storing a set of modules and a set of computer instructions for personalizing documents for users).**

Hauser does not teach (a) embed a first set of rules into a first modular item of a first document; and (d) assemble the second modular item with the first document to generate a derivative document.

However in analogous arts of interactive content creation, Shivakumar teaches (a) embed a first set of rules into a first modular item of a first document ([0007], [0010], [0028], [0038], [0043] **wherein Shivakumar incorporates rules in the source content and analyzes the content and categorizes the content using artificial intelligence to discover the core concept of the content and any patterns**) and (d) assemble the second modular item with the first document to generate a derivative document ([0040], [0044], [0053-0054] **wherein Shivakumar teaches transforming an original content to a personalized content by collecting user's activities and user's feedback**).

It would have been obvious to a person in the ordinary skill in the art before the effective filing date of the claimed invention to combine Hauser and Shivakumar by incorporating the method of (a) embed a first set of rules into a first modular item of a first document; and (d) assemble the second modular item with the first document to generate a derivative document of Shivakumar into the method of automatically assembling an interactive document of Hauser for the purpose of mapping the categorized content and user's interests and personalizing the content and rendering into user preferred presentation type and format (Shivakumar: Abstract).

Hauser does not teach (b) receive one or more parameters for personalizing the first document; (c) pull a second modular item from a second document based at least in part on a value of the one or more parameters and the first set of rules.

However in analogous arts of interactive content creation, Rauber teaches (b) receive one or more parameters for personalizing the first document; (c) pull a second modular item from a second document based at least in part on a value of the one or more parameters and the first set of rules

(Claim 1 text, [0081], [0121], [0130] wherein Rauber implements parameters and contextual information that includes patterns to identify a preferred content and then customized content for recipients, wherein the contextual information used between two content information).

It would have been obvious to a person in the ordinary skill in the art before the effective filing date of the claimed invention to combine Hauser and Rauber by incorporating the method of (b) receive one or more parameters for personalizing the first document; (c) pull a second modular item from a second document based at least in part on a value of the one or more parameters and the first set of rules of Rauber into the method of automatically assembling an interactive document of Hauser for the purpose of mapping the categorized content and user's interests and personalizing the content and rendering into user preferred presentation type and format (Rauber: Abstract).

14. Regarding claim 2, Hauser as modified by Shivakumar and Rauber teaches wherein the first modular item is stored in a structured data that defines the first set of rules **([0024-0025], [0031-0041] wherein Shivakumar incorporates a training data, search index data and user preference data that collectively form the knowledge repository and a learning module takes into account also any or all of the user's prior knowledge, training data and user preferences data 126 stored at database server or memory that defines the presentation type and format of the content for personalization).**

15. Regarding claim 3, Hauser as modified by Shivakumar and Rauber teaches wherein the first set of rules define a link between the first modular item and another document or a rule for assembling the first modular item into a derivative document **([0028], [0049], [0055] wherein Shivakumar incorporates different analyzers and rules for aggregating concepts to produce a personalized document for a specific user), ([0025], [0029]**

wherein Hauser incorporates Modules and scripts for selecting content for each individual).

16. Regarding claim 4, Hauser as modified by Shivakumar and Rauber teaches wherein the value of the one or more parameters is specified by a user via a user interface **([0048] wherein Shivakumar presents patterns for selection to a user via graphs renderer), ([0026], [0056] wherein Hauser incorporates a display for allowing users to registers and incorporates values for personalizing content).**

17. Regarding claim 5, Hauser as modified by Shivakumar and Rauber teaches wherein the user interface displays one or more personalization fields that are automatically generated based on the first set of rules **(FIG. 8, [0056-0057] wherein Shivakumar provides an interface and allowing users to select parameters and automatically generating a personalized content).**

18. Regarding claim 6, Hauser as modified by Shivakumar and Rauber teaches wherein at least one of the one or more personalization fields is generated based on a second set of rules associated with the second modular item **(FIGS. 1, 8, [0056-0057] wherein Shivakumar provides different access to different modules within an interface that allow users to select different parameters and automatically generating a personalized content).**

19. Regarding claim 7, Hauser as modified by Shivakumar and Rauber teaches wherein the one or more processors are further configured to: upon receiving an input in a given personalization field, display at least a portion of the content from the first document that is related to the given personalization field **(Abstract, claim 16 text, [0023] wherein Rauber receives user's input and copy portions of interest from a master document for display).**

20. Regarding claim 8, Hauser as modified by Shivakumar and Rauber teaches wherein the value of the one or more parameters is specified by a user in a text file **(FIGS. 6-**

7[0089], [0113], [0115] wherein Rauber generates the personalized document by processing text files that include values specified by users).

21. Regarding claim 9, Hauser as modified by Shivakumar and Rauber teaches wherein the first set of rules includes a mapping relationship that maps the first modular item to a style for rendering the first modular item **(Abstract, [0007], [0026], [0049], [0058]**

wherein Shivakumar includes mapping the categorized content and user's interests and personalizes the content and renders into user preferred presentation type and format).

22. Regarding claim 10, Hauser as modified by Shivakumar and Rauber teaches wherein the derivative document is displayed to a reader using the mapped style **(Abstract, [0007], [0026], [0049], [0058] wherein Shivakumar includes mapping the categorized content and user's interests and personalizes the content and renders into user preferred presentation type and format).**

23. Regarding claim 11, Hauser as modified by Shivakumar and Rauber teaches wherein the server is configured to collect data about the reader's interaction with the derivative document to extract insight data **([0008], [0010], [0026] wherein Shivakumar personalized content based on user's activities and interest).**

24. Regarding claim 12, Hauser as modified by Shivakumar and Rauber teaches wherein the one or more processors are configured to further receive an instruction for personalizing the first modular item or the second modular item **(Claim 35 text, [0027] wherein Shivakumar incorporates instructions for personalizing content based analyzing and categorizing the content and determining the user's interests, prior knowledge of the**

user by capturing the user data, user's preferences about content type, presentation type and formats).

25. Regarding claim 13, Hauser as modified by Shivakumar and Rauber teaches wherein the one or more processors are configured to further store the one or more parameters and a reference to the first document for updating the derivative document **([0057] wherein Shivakumar incorporates components for updating the personalized content), ([0015-0016], [0026] wherein Rauber allows users to adapt, change and modify the personalized document).**

26. Regarding claim 14, Hauser as modified by Shivakumar and Rauber teaches wherein the one or more processors are configured to further convert the derivative document into a master document by storing the one or more parameters as a set of rules associated with the derivative document **([0115], [0144], [0188] wherein Rauber describes the personalized document derived from the master document and how the personalized is created and saved), ([0007], {0010} wherein Shivakumar describes mapping the categorized content to user's interests and prior knowledge to discover the relevant content, from the categorized content, and preferred presentation type and formats and transforming the relevant content discovered is into a preferred presentation type, wherein the preferred presentation is stored)**

27. Regarding claim 15, Hauser teaches a system for personalizing an interactive document comprising **(Claim 1 text, wherein Hauser describes a computer system for automatically compiling content items in order to generate a personalized document).**

Hauser does not teach (a) a first component configured to create one or more modular items of a document, wherein at least one modular item is associated with a set of

rules defining a link between the at least one modular item and another document or a rule for assembling the at least one modular item into a derivative document; and (iii) render the derivative document using a style associated with the given document.

However in analogous arts of interactive content creation, Shivakumar teaches (a) (a) a first component configured to create one or more modular items of a document, wherein at least one modular item is associated with a set of rules defining a link between the at least one modular item and another document or a rule for assembling the at least one modular item into a derivative document ([0007], [0010], [0028], [0038], [0043] wherein **Shivakumar incorporates rules in the source content and analyzes the content and categorizes the content using artificial intelligence to discover the core concept of the content and any patterns**), ([0040], [0044], [0053-0054] wherein Shivakumar teaches transforming an original content to a personalized content by collecting user's activities and user's feedback), ([0028], [0049], [0055] wherein Shivakumar incorporates different analyzers and rules for aggregating concepts to produce a personalized document for a specific user), ([0025], [0029] wherein Hauser incorporates Modules and scripts for selecting content for each individual) and (iii) render the derivative document using a style associated with the given document (**Abstract**, [0007], [0026], [0049], [0058] wherein Shivakumar includes mapping the categorized content and user's interests and personalizes the content and renders into user preferred presentation type and format).

It would have been obvious to a person in the ordinary skill in the art before the effective filing date of the claimed invention to combine Hauser and Shivakumar by incorporating the method of a first component configured to create one or more modular items of a document, wherein at least one modular item is associated with a set of rules defining a link between the at least

one modular item and another document or a rule for assembling the at least one modular item into a derivative document; and (iii) render the derivative document using a style associated with the given document of Shivakumar into the method of a system for personalizing an interactive document of Hauser for the purpose of mapping the categorized content and user's interests and personalizing the content and rendering into user preferred presentation type and format (Shivakumar: Abstract).

Hauser does not teach and (b) a second component configured to: (i) receive an instruction for personalizing a given document; (ii) assemble a plurality of modular items to generate a derivative document of the given document, wherein the plurality of modular items are pulled from the given document and at least another document based at least in part on a set of rules associated with at least one modular item of the given document.

However in analogous arts of interactive content creation, Rauber teaches (b) a second component configured to: (i) receive an instruction for personalizing a given document; (ii) assemble a plurality of modular items to generate a derivative document of the given document, wherein the plurality of modular items are pulled from the given document and at least another document based at least in part on a set of rules associated with at least one modular item of the given document **(Claim 1 text, [0081], [0121], [0130] wherein Rauber implements parameters and contextual information that includes patterns to identify a preferred content and then customized content for recipients, wherein the contextual information used between two content information).**

It would have been obvious to a person in the ordinary skill in the art before the effective filing date of the claimed invention to combine Hauser and Rauber by incorporating the method of (b) receive one or more parameters for personalizing the first document; (c) pull a second modular item from a second document based at least in part on a value of the one or more parameters and

the first set of r(b) a second component configured to: (i) receive an instruction for personalizing a given document; (ii) assemble a plurality of modular items to generate a derivative document of the given document, wherein the plurality of modular items are pulled from the given document and at least another document based at least in part on a set of rules associated with at least one modular item of the given document rules of Rauber into the method of a system for personalizing an interactive document of Hauser for the purpose of mapping the categorized content and user's interests and personalizing the content and rendering into user preferred presentation type and format (Rauber: Abstract).

28. Regarding claim 16, Hauser as modified by Shivakumar and Rauber teaches wherein the first component comprises a first user interface configured to receive a user input to generate the first set of rules (**Abstract, claim 16 text, [0023], [0188] wherein Rauber receives user's input that defines portions of interest from a master document for display**).

29. Regarding claim 18, Hauser as modified by Shivakumar and Rauber teaches wherein the first component comprises a second user interface configured to receive user input to customize the one or more modular items (**FIG. 8, [0056-0057] wherein Shivakumar provides an interface with different components and allowing users to select parameters and automatically generating a personalized content**).

30. Regarding claim 19, Hauser as modified by Shivakumar and Rauber teaches wherein the set of rules associated with the at least one item of the given document includes a mapping relationship that maps the at least one item to the style (**Abstract, [0007], [0026], [0049], [0058] wherein Shivakumar includes mapping the categorized content and user's interests and personalizes the content and renders into user preferred presentation type and format**).

31. Regarding claim 19, Hauser as modified by Shivakumar and Rauber teaches wherein the second component comprises a user interface for receiving the instruction for personalizing the given document **(Claim 35 text, [0027] wherein Shivakumar incorporates instructions for personalizing content based analyzing and categorizing the content and determining the user's interests, prior knowledge of the user by capturing the user data, user's preferences about content type, presentation type and formats).**

32. Claims 16-17 are rejected under AIA 35 U.S.C. 103(a) as being unpatentable over Hauser. US Patent Application Publication US 20110029858 A1 (hereinafter Hauser) in view of Shivakumar. US Patent Application Publication US 20150081611 A1 (hereinafter Shivakumar) and further in view of Rauber et al. US Patent Application Publication US 20090076834 A1 (hereinafter Rauber) and further in view of Vincent, III. US Patent Application Publication US 20120159300 A1 (hereinafter Vincent).

33. Regarding claim 16, Hauser, Shivakumar and Rauber do not teach wherein the first user interface displays a plurality of fields for defining the first set of rules.

However in analogous arts of interactive content creation, Vincent teaches wherein the first user interface displays a plurality of fields for defining the first set of rules **(Abstract, Claims 12 and 21 text, wherein Vincent provides an interface that allows users to enter values into plurality of fields and customize a document).**

It would have been obvious to a person in the ordinary skill in the art before the effective filing date of the claimed invention to combine Vincent with Hauser, Shivakumar and Rauber by incorporating the method of wherein the first user interface displays a plurality of fields for defining the first set of rules of Vincent into the method of a system for personalizing an interactive document of Hauser, Shivakumar and Rauber in order to incorporates tools for expanding a

document or form automatically or contract to accommodate data of varying length (Vincent: Abstract).

34. Regarding claim 17, Hauser as modified by Shivakumar, Rauber and Vincent teaches wherein the first user interface displays a plurality of fields for defining the first set of rules **(Abstract, Claims 12 and 21 text, wherein Vincent provides an interface that allows users to enter values into plurality of fields and customize a document).**

Conclusion

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

36. Any inquiry concerning this communication or earlier communications from the examiner should be directed to HASSAN MRABI whose telephone number is (571)272-8875. The examiner can normally be reached on Monday-Friday, 7:30am-5pm. Alt, Friday, EST.

37. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Scott Baderman can be reached on 571-272-3644. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

38. 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

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/HASSAN MRABI/

Examiner, Art Unit 2144

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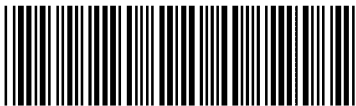
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- Is Visa Back A Buy After Amazon Plans To Hire Its U.S.-Based Credit Cards?**
 (Business Daily News) **Business Daily** Los Angeles: Business Daily; Oct. 13, 2022.
 Found in: [2022/10/13 Professional Journalist \(157\) - current](#)
- NantHealth (NHI: \$1.35) decreases 1.5% weakening below moving average price**
 (NantHealth: NantHealth) (London) (15) (Oct. 11, 2022)
 Found in: [4 databases View Set](#)
- NantHealth (NHI: \$1.31) drops 2.0% weakening below moving average price**
 (NantHealth: NantHealth) (London) (15) (Oct. 11, 2022)
 Found in: [5 databases View Set](#)
- NantHealth (NHI: \$1.31) price 2.0% below VWAP on strong volume**
 (NantHealth: NantHealth) (London) (15) (Oct. 11, 2022)
 Found in: [2 databases View Set](#)
- NantHealth (NHI: \$1.30) price 2.0% below VWAP on strong volume**
 (NantHealth: NantHealth) (London) (15) (Oct. 11, 2022)
 Found in: [2 databases View Set](#)
- NantHealth (NHI: \$1.31) weakens below moving average price**
 (NantHealth: NantHealth) (London) (15) (Oct. 11, 2022)
 Found in: [2 databases View Set](#)
- NantHealth (NHI: \$1.32) decreases 1.2% weakening below moving average price**
 (NantHealth: NantHealth) (London) (15) (Oct. 11, 2022)
 Found in: [2 databases View Set](#)
- Ofix Solutions Launches Interactive Fraud Data Platform**
 (Ofix: Ofix) (London) (15) (Oct. 11, 2022)
 Found in: [2 databases View Set](#)
- NantHealth (NHI: \$1.34) decreases 1.5% weakening below moving average price**
 (NantHealth: NantHealth) (London) (15) (Oct. 11, 2022)
 Found in: [2 databases View Set](#)
- Karudhika Aishwarya NIV Virtual Investor Day - Final**
 (Karudhika Aishwarya NIV: Karudhika Aishwarya NIV) (London) (15) (Oct. 11, 2022)
 Found in: [2 databases View Set](#)

* Duplicates are removed from the search, but included in the result count.

Page 1 of 1



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BIB DATA SHEET

CONFIRMATION NO. 7023

SERIAL NUMBER 17/503,675	FILING or 371(c) DATE 10/18/2021 RULE	CLASS 715	GROUP ART UNIT 2144	ATTORNEY DOCKET NO. 56000-701.301	
APPLICANTS Turtl Surf & Immerse Limited, London, UNITED KINGDOM; INVENTORS Nicholas Kingsley Mason, St Albans, UNITED KINGDOM; ** CONTINUING DATA ***** This application is a CON of 17/347,899 06/15/2021 which claims benefit of 63/048,512 07/06/2020 ** FOREIGN APPLICATIONS ***** ** IF REQUIRED, FOREIGN FILING LICENSE GRANTED ** 10/26/2021					
Foreign Priority claimed ☐ Yes ☒ No 35 USC 119(a-d) conditions met ☐ Yes ☒ No Verified and Acknowledged <u>/HASSAN MRABI/</u> Examiner's Signature	☐ Met after Allowance <u>/HM/</u> Initials	STATE OR COUNTRY UNITED KINGDOM	SHEETS DRAWINGS 20	TOTAL CLAIMS 20	INDEPENDENT CLAIMS 2
ADDRESS WILSON SONSINI GOODRICH & ROSATI 650 PAGE MILL ROAD PALO ALTO, CA 94304-1050 UNITED STATES					
TITLE METHODS AND SYSTEMS FOR INTERACTIVE CONTENT CREATION					
FILING FEE RECEIVED 1820	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		

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U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

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Substitute for form 1449/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use as many sheets as necessary)				Complete if Known	
				Application Number	17/503,675
				Filing Date	10-18-2021
				First Named Inventor	MASON; Nicholas Kingsley
				Art Unit	2854
				Examiner Name	Not Yet Assigned
Sheet	1	of	4	Attorney Docket Number	56000-701.301

U. S. PATENT DOCUMENTS

Examiner Initials*	Cite No. ¹	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code ² (if known)			
	001	US-8752086	06-10-2014	CONANT; Carson Victor	
	002	US-9727618	08-08-2017	SHARP; Oliver et al.	
	003	US-9792270	10-17-2017	KLOIBER; Daniel J. et al.	
	004	US-20040015408	01-22-2004	RAUEN, IV; Philip Joseph et al.	
	005	US-20140278758	09-18-2014	CHRISTIANSEN; Bradley et al.	
	006	US-20170325006	11-09-2017	MARCUS; Dwight	
	007	US-20180268253	09-20-2018	HOFFMAN; Raphael et al.	
	008	US-20190259107	08-22-2019	HOLLIS; Richard B. et al.	
	009	US-20190347668	11-14-2019	WILLIAMS; Jared et al.	

FOREIGN PATENT DOCUMENTS

Examiner Initials*	Cite No. ¹	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages Or Relevant Figures Appear	T ⁶
		Country Code ³ Number ⁴ Kind Code ⁵ (if known)				
	001	EP-3276506-A1	01-31-2018	TURL SURF & IMMERSE LTD [GB]		☐

Examiner Signature	/HASSAN MRABI/	Date Considered	12/17/2021
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*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. ¹ Applicant's unique citation designation number (optional). ² See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached. 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 2 hours 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, 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 Number	17/503,675
				Filing Date	10-18-2021
				First Named Inventor	MASON; Nicholas Kingsley
				Art Unit	2854
				Examiner Name	Not Yet Assigned
Sheet	2	of	4	Attorney Docket Number	56000-701.301

NON-PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No. ¹	Include name of the author(in CAPITAL LETTERS),title of the article(when appropriate), title of the item (book,magazine,journal,serial,symposium,catalog,etc.),date,page(s),volume-issue number(s),publisher, city and/or country where published.	T ²
	001	Co-pending U.S. Application No. 17/347,899, inventor MASON; Nicholas Kingsley, filed on June 15, 2021.	☐

Examiner Signature	/HASSAN MRABI/	Date Considered	12/17/2021
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*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. 1 Applicant's unique citation designation number (optional). 2 Applicant is to place a check mark here if English language Translation is attached. This collection of information is required by 37 CFR 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 2 hours 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, 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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Substitute for form 1449/PTO		Complete if Known			
INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use as many sheets as necessary)		Application Number	17/503,675		
		Filing Date	10-18-2021		
		First Named Inventor	MASON; Nicholas Kingsley		
		Art Unit	2854		
		Examiner Name	Not Yet Assigned		
Sheet	3	of	4	Attorney Docket Number	56000-701.301

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

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- ☐ See attached certification statement.

- ☐ 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	/Shuaimin Liu/	Date (YYYY-MM-DD)	2021-10-19
Name/Print	Shuaimin Liu	Registration Number	L1361

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

EAST Search History

EAST Search History (Prior Art)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
S1	36,665	(G06F40/103 or G06F16/24564 or G06F40/134 or G06F40/166).cpc.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2021/12/04 16:08
S2	9	("20040015408" "20140278758" "20170325006" "20180268253" "20190259107" "20190347668" "8752086" "9727618" "9792270").PN.	US-PGPUB; USPAT	OR	ON	2021/12/04 16:10
S3	544	((pull\$3 fetch\$3 retriev\$3 obtain\$3 extract\$3 request\$3 retract\$3 grab\$4 snarch\$3) near9 (modular module unit design component design block scheme code layout package algorithm platform) near9 (content item element object data information) near9 (document report brochure handbook proposal whitepaper newsletter magazine guide guideline sale playbook) near9 (relevant relevanc\$1 pertinent pertaining significant) near9 (customer client reader person individual user consumer subscriber clientele tenant buyer patient purchaser acquirer employer passenger licensee lessee recipient guest agent collaborator employee vendor advertiser company merchant dealer helpdesk supplier))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2021/12/04 17:16
S5	5	S4 and S1	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2021/12/04 17:21
S6	0	S5 and ((automatic\$4 automated machine\$1driven computerized automate automation robotic programmable adaptive	US-PGPUB; USPAT; USOCR; FPRS; EPO;	OR	ON	2021/12/04 17:36

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S7	1,287	((automatic\$4 automated machine\$1driven computerized automate automation robotic programmable adaptive asynchronous) near9 (assembl\$3 gather\$3 ((put\$4 set setting get\$4) near2 (together up)) reassembl\$3 build\$3 construct\$3 compil\$3 arrang\$5 attach\$3 collect\$3 unit\$3 join\$3 combin\$3 regroup\$3 consolidat\$3 congregat\$3) near9 ((interactive interactional interact\$3 participative participatory collaborative iterative personalized customized integrative) near9 (document papers documentation letter memorandum declaration report dossier file booklet handbook brochure manuscript manifesto statement copy printout paperwork guide guideline publication presentation literature essay study documentary version project writing)))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2021/12/04 17:37
S8	1,266	S7 and (@ad<"20210615" or @rlad<"20210615")	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2021/12/04 17:38

S9	1	S8 and ((pull\$3 fetch\$3 retriev\$3 obtain\$3 extract\$3 request\$3 retract\$3 grab\$4 snarch\$3) near9 (modular module unit design component design block scheme code layout package algorithm platform) near9 (content item element object data information) near9 (document report brochure handbook proposal whitepaper newsletter magazine guide guideline sale playbook) near9 (relevant relevanc\$1 pertinent pertaining significant) near9 (customer client reader person individual user consumer subscriber clientele tenant buyer patient purchaser acquirer employer passenger licensee lessee recipient guest agent collaborator employee vendor advertiser company merchant dealer helpdesk supplier))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2021/12/04 17:39
S10	458	((generat\$3 creat\$3 produc\$3 build\$3 compos\$3) near9 (derivative near4 document))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2021/12/04 17:41
S11	0	S10 and ((pull\$3 fetch\$3 retriev\$3 obtain\$3 extract\$3 request\$3 retract\$3 grab\$4 snarch\$3) near9 (modular module unit design component design block scheme code layout package algorithm platform) near9 (content item element object data information) near9 (document report brochure handbook proposal whitepaper newsletter magazine guide guideline sale playbook) near9 (relevant relevanc\$1 pertinent pertaining significant) near9 (customer client reader person individual user consumer subscriber clientele tenant buyer patient purchaser acquirer employer passenger licensee lessee recipient guest agent collaborator employee vendor advertiser company merchant dealer helpdesk supplier))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2021/12/04 17:47

S12	67,239	((generat\$3 creat\$3 produc\$3 build\$3 compos\$3 provid\$3 stimulat\$3 catalyz\$3 construct\$3 facilitat\$3 compil\$3 result\$3 deliver\$3) near9 ((derivative derived) near4 (document content item element object data information) near9 (document report brochure handbook proposal whitepaper newsletter magazine guide guideline sale playbook file paper manifesto book draft page webpage study literature content data))))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2021/12/04 20:39
S13	21	S12 and ((pull\$3 fetch\$3 retriev\$3 obtain\$3 extract\$3 request\$3 retract\$3 grab\$4 snarch\$3) near9 (modular module unit design component design block scheme code layout package algorithm platform) near9 (content item element object data information) near9 (document report brochure handbook proposal whitepaper newsletter magazine guide guideline sale playbook) near9 (relevant relevanc\$1 pertinent pertaining significant) near9 (customer client reader person individual user consumer subscriber clientele tenant buyer patient purchaser acquirer employer passenger licensee lessee recipient guest agent collaborator employee vendor advertiser company merchant dealer helpdesk supplier))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2021/12/04 20:42
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		letter memorandum declaration report dossier file booklet handbook brochure manuscript manifesto statement copy printout paperwork guide guideline publication presentation literature essay study documentary version project writing)))				
S15	0	S13 and ((automatic\$4 automated machine\$1driven computerized automate automation robotic programmable adaptive asynchronous) near9 (assembl\$3 gather\$3 ((put\$4 set setting get\$4) near2 (together up)) reassembl\$3 build\$3 construct\$3 compil\$3 arrang\$5 attach\$3 collect\$3 unit\$3 join\$3 combin\$3 regroup\$3 consolidat\$3 congregat\$3) with ((interactive interactional interact\$3 participative participatory collaborative iterative personalized customized integrative) near9 (document papers documentation letter memorandum declaration report dossier file booklet handbook brochure manuscript manifesto statement copy printout paperwork guide guideline publication presentation literature essay study documentary version project writing)))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2021/12/04 20:47
S16	93	S12 and ((automatic\$4 automated machine\$1driven computerized automate automation robotic programmable adaptive asynchronous) near9 (assembl\$3 gather\$3 ((put\$4 set setting get\$4) near2 (together up)) reassembl\$3 build\$3 construct\$3 compil\$3 arrang\$5 attach\$3 collect\$3 unit\$3 join\$3 combin\$3 regroup\$3 consolidat\$3 congregat\$3) with ((interactive interactional interact\$3 participative participatory collaborative iterative personalized customized integrative) near9 (document papers documentation letter memorandum declaration report dossier file booklet handbook brochure manuscript manifesto statement copy printout paperwork	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2021/12/04 21:12

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S18	63	S17 and rule	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2021/12/04 21:14
S19	61	S18 and parameter	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2021/12/04 21:14
S21	36,665	(G06F40/103 or G06F16/24564 or G06F40/134 or G06F40/166).cpc.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2021/12/04 21:28
S22	610	S21 and S20	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2021/12/04 21:28
S23	0	S22 and ((automatic\$4 automated machine\$1driven computerized automate automation robotic programmable adaptive asynchronous) near9 (assembl\$3 gather\$3 ((put\$4 set setting get\$4) near2 (together up)) reassembl\$3 build\$3 construct\$3 compil\$3 arrang\$5 attach\$3 collect\$3 unit\$3 join\$3 combin\$3 regroup\$3 consolidat\$3 congregat\$3) near9 ((interactive interactional interact\$3 participative participatory collaborative iterative personalized customized integrative) near9 (document papers documentation letter memorandum declaration report dossier file booklet handbook brochure manuscript manifesto	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2021/12/04 21:28

		statement copy printout paperwork guide guideline publication presentation literature essay study documentary version project writing)))				
S24	1,287	((automatic\$4 automated machine\$1driven computerized automate automation robotic programmable adaptive asynchronous) near9 (assembl\$3 gather\$3 ((put\$4 set setting get\$4) near2 (together up)) reassembl\$3 build\$3 construct\$3 compil\$3 arrang\$5 attach\$3 collect\$3 unit\$3 join\$3 combin\$3 regroup\$3 consolidat\$3 congregat\$3) near9 ((interactive interactional interact\$3 participative participatory collaborative iterative personalized customized integrative) near9 (document papers documentation letter memorandum declaration report dossier file booklet handbook brochure manuscript manifesto statement copy printout paperwork guide guideline publication presentation literature essay study documentary version project writing)))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2021/12/04 21:30
S26	59	S25 and ((generat\$3 creat\$3 produc\$3 build\$3 compos\$3 provid\$3 stimulat\$3 catalyz\$3 construct\$3 facilitat\$3 compil\$3 result\$3 deliver\$3) near9 ((derivative derived) near4 (document content item element object data information) near9 (document report brochure handbook proposal whitepaper newsletter magazine guide guideline sale playbook file paper manifesto book draft page webpage study literature content data)))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2021/12/04 21:32
S27	1,289	((automatic\$4 automated machine\$1driven computerized automate automation robotic programmable adaptive asynchronous) near9 (assembl\$3 gather\$3 ((put\$4 set setting get\$4) near2 (together up)) reassembl\$3 build\$3 construct\$3 compil\$3	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2021/12/08 10:10

		arrang\$5 attach\$3 collect\$3 unit\$3 join\$3 combin\$3 regroup\$3 consolidat\$3 congregat\$3) near9 ((interactive interactional interact\$3 participative participatory collaborative iterative personalized customized integrative) near9 (document papers documentation letter memorandum declaration report dossier file booklet handbook brochure manuscript manifesto statement copy printout paperwork guide guideline publication presentation literature essay study documentary version project writing)))				
S29	59	S28 and ((generat\$3 creat\$3 produc\$3 build\$3 compos\$3 provid\$3 stimulat\$3 catalyz\$3 construct\$3 facilitat\$3 compil\$3 result\$3 deliver\$3) near9 ((derivative derived) near4 (document content item element object data information) near9 (document report brochure handbook proposal whitepaper newsletter magazine guide guideline sale playbook file paper manifesto book draft page webpage study literature content data)))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2021/12/08 10:10
S30	74,375	((module modular) near9 (API "application programming interface"))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2021/12/08 10:19
S32	36,681	(G06F40/103 or G06F16/24564 or G06F40/134 or G06F40/166).cpc.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2021/12/08 10:21
S33	757	S31 and S32	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2021/12/08 10:21

S34	0	S33 and ((track\$3 monitor\$3 record\$3 detect\$3 evaluat\$3 keep\$3) near9 (reader near7 (interact\$3 engagement engag\$3 interest reading))))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2021/12/08 10:26
S35	33	S33 and ((reader near7 (interact\$3 engagement engag\$3 interest reading))))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2021/12/08 10:27
S36	19	S35 and ((personaliz\$3 individualiz\$3 customiz\$3 personalis\$3 optimiz\$3) near9 (content information data book article webpage website page report brochure digital magazine product guide sale playbook sale proposal whitepaper newsletter company handbook annual))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2021/12/08 10:31
S37	14	(modular near2 content near2 item\$1)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2021/12/08 11:20
S39	4	S38 and ((personaliz\$3 individualiz\$3 customiz\$3 personalis\$3 optimiz\$3) near9 (content information data book article webpage website page report brochure digital magazine product guide sale playbook sale proposal whitepaper newsletter company handbook annual))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2021/12/08 11:20
S40	2,767	((modular module) near2 content near2 (item\$1 element))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2021/12/08 11:35
S42	2	S38 and ((personaliz\$3 individualiz\$3 customiz\$3 personalis\$3 optimiz\$3) near9 (content information data book	US-PGPUB; USPAT; USOCR; FPRS; EPO;	OR	ON	2021/12/08 11:37

		article webpage website page report brochure digital magazine product guide sale playbook sale proposal whitepaper newsletter company handbook annual) near9 (user client customer consumer purchaser reader person individual))	JPO; DERWENT; IBM_TDB			
S43	693	S41 and ((personaliz\$3 individualiz\$3 customiz\$3 personalis\$3 optimiz\$3) near9 (content information data book article webpage website page report brochure digital magazine product guide sale playbook sale proposal whitepaper newsletter company handbook annual) near9 (user client customer consumer purchaser reader person individual))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2021/12/08 11:37
S44	891,880	17and ((personaliz\$3 individualiz\$3 customiz\$3 personalis\$3 optimiz\$3) near9 (content information data book article webpage website page report brochure digital magazine product guide sale playbook sale proposal whitepaper newsletter company handbook annual))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2021/12/08 11:38
S45	19	S32 and S43	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2021/12/08 11:38
S46	25,743	((track\$3 monitor\$3 record\$3 detect\$3 evaluat\$3 keep\$3) near9 (reader near7 (interact\$3 engagement engag\$3 interest reading behaviour behavior))))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2021/12/08 11:46
S48	3,587	S47 and ((personaliz\$3 individualiz\$3 customiz\$3 personalis\$3 optimiz\$3) near9 (content information data book article webpage website page report brochure digital magazine product guide sale playbook sale proposal whitepaper newsletter company handbook annual document))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2021/12/08 11:58

S49	106	S48 and ((generat\$3 creat\$3 produc\$3 build\$3 compos\$3 provid\$3 stimulat\$3 catalyz\$3 construct\$3 facilitat\$3 compil\$3 result\$3 deliver\$3) near9 ((derivative derived deriv\$3) near4 (document content item element object data information) near9 (document report brochure handbook proposal whitepaper newsletter magazine guide guideline sale playbook file paper manifesto book draft page webpage study literature content data)))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2021/12/08 11:59
S50	106	S49 and ((track\$3 monitor\$3 record\$3 detect\$3 evaluat\$3 keep\$3 collect\$3 assess\$3) near9 (reader near7 (interact\$3 engagement engag\$3 interest reading data))))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2021/12/08 12:11
S51	25,743	((track\$3 monitor\$3 record\$3 detect\$3 evaluat\$3 keep\$3) near9 (reader near7 (interact\$3 engagement engag\$3 interest reading behaviour behavior))))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2021/12/08 15:50
S53	3,587	S52 and ((personaliz\$3 individualiz\$3 customiz\$3 personalis\$3 optimiz\$3) near9 (content information data book article webpage website page report brochure digital magazine product guide sale playbook sale proposal whitepaper newsletter company handbook annual document))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2021/12/08 15:50
S54	106	S53 and ((generat\$3 creat\$3 produc\$3 build\$3 compos\$3 provid\$3 stimulat\$3 catalyz\$3 construct\$3 facilitat\$3 compil\$3 result\$3 deliver\$3) near9 ((derivative derived deriv\$3) near4 (document content item element object data information) near9 (document report brochure handbook proposal whitepaper newsletter magazine guide guideline sale playbook file paper manifesto book draft page webpage study literature content data)))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2021/12/08 15:50

S55	106	S54 and ((track\$3 monitor\$3 record\$3 detect\$3 evaluat\$3 keep\$3 collect\$3 assess\$3) near9 (reader near7 (interact\$3 engagement engag\$3 interest reading data))))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2021/12/08 15:50
S56	16	S55 and (rule near9 (module modular model mod))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2021/12/08 15:50
S57	79	((track\$3 monitor\$3 record\$3 detect\$3 evaluat\$3 keep\$3) near9 (reader near7 (interact\$3 engagement engag\$3 interest reading behaviour behavior)))) same ((personaliz\$3 individualiz\$3 customiz\$3 personalis\$3 optimiz\$3) near9 (content information data book article webpage website page report brochure digital magazine product guide sale playbook sale proposal whitepaper newsletter company handbook annual document))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2021/12/08 17:17
S59	36,681	(G06F40/103 or G06F16/24564 or G06F40/134 or G06F40/166).cpc.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2021/12/08 17:20
S60	3	S58 and S59	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2021/12/08 17:20
S61	85	((track\$3 monitor\$3 record\$3 detect\$3 evaluat\$3 keep\$3) near9 (reader near7 (interact\$3 engagement engag\$3 interest reading behaviour behavior)))) with ((derivative derived deriv\$3 personaliz\$3 individualiz\$3 customiz\$3 personalis\$3 optimiz\$3) near9 (content information data	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2021/12/09 08:15

		book article webpage website page report brochure digital magazine product guide sale playbook sale proposal whitepaper newsletter company handbook annual document))				
S62	12	S61 and ((generat\$3 creat\$3 produc\$3 build\$3 compos\$3 provid\$3 stimulat\$3 catalyz\$3 construct\$3 facilitat\$3 compil\$3 result\$3 deliver\$3) near9 ((derivative derived deriv\$3 personaliz\$3 individualiz\$3 customiz\$3 personalis\$3 optimiz\$3) near4 (document content item element object data information) near9 (document report brochure handbook proposal whitepaper newsletter magazine guide guideline sale playbook file paper manifesto book draft page webpage study literature content data)))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2021/12/09 08:16
S63	85	((track\$3 monitor\$3 record\$3 detect\$3 evaluat\$3 keep\$3) near9 (reader\$1 near7 (interact\$3 engagement engag\$3 interest reading behaviour behavior))) with ((derivative derived deriv\$3 personaliz\$3 individualiz\$3 customiz\$3 personalis\$3 optimiz\$3) near9 (content information data book article webpage website page report brochure digital magazine product guide sale playbook sale proposal whitepaper newsletter company handbook annual document))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2021/12/09 09:52
S64	200	((track\$3 monitor\$3 record\$3 detect\$3 evaluat\$3 keep\$3) near9 (reader\$1 near7 (interact\$3 engagement engag\$3 interest reading behaviour behavior))) same ((derivative derived deriv\$3 personaliz\$3 individualiz\$3 customiz\$3 personalis\$3 optimiz\$3) near9 (content information data book article webpage website page report brochure digital magazine product guide sale playbook sale proposal whitepaper newsletter	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2021/12/09 09:53

		company handbook annual document))				
S65	3,877	((track\$3 monitor\$3 record\$3 detect\$3 evaluat\$3 keep\$3 identif\$4 stor\$3 sav\$3 determin\$3) near9 ((customer client reader person individual user consumer subscriber clientele tenant buyer patient purchaser acquirer employer passenger licensee lessee recipient guest agent collaborator employee vendor advertiser company merchant dealer helpdesk supplier) near7 (interact\$3 engagement engag\$3 interest reading behaviour behavior))) same ((module model modular rule mod modality paradigm modulat\$3 pattern parameter analyzer node) near9 (derivative derived deriv\$3 personaliz\$3 individualiz\$3 customiz\$3 personalis\$3 optimiz\$3) near9 (content information data book article webpage website page report brochure digital magazine product guide sale playbook sale proposal whitepaper newsletter company handbook annual document))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2021/12/09 10:02
S67	1,542	S66 and ((generat\$3 creat\$3 produc\$3 build\$3 compos\$3 provid\$3 stimulat\$3 catalyz\$3 construct\$3 facilitat\$3 compil\$3 result\$3 deliver\$3) near9 ((derivative derived deriv\$3 personaliz\$3 individualiz\$3 customiz\$3 personalis\$3 optimiz\$3) near4 (document content item element object data information) near9 (document report brochure handbook proposal whitepaper newsletter magazine guide guideline sale playbook file paper manifesto book draft page webpage study literature content data)))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2021/12/09 10:06
S68	36,699	(G06F40/103 or G06F16/24564 or G06F40/134 or G06F40/166).cpc.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO;	OR	ON	2021/12/09 10:08

			DERWENT; IBM_TDB			
S69	29	S67 and S68	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2021/12/09 10:08
S70	13	(US-8219914-\$ US-20150081611-\$ US-20130031470-\$ US-10783315-\$ US-20110029858-\$)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2021/12/10 08:59
S72	2	S71 and ((automatic\$4 automated machine\$1driven computerized automate automation robotic programmable adaptive asynchronous) near9 (assembl\$3 gather\$3 ((put\$4 set setting get\$4) near2 (together up)) reassembl\$3 build\$3 construct\$3 compil\$3 arrang\$5 attach\$3 collect\$3 unit\$3 join\$3 combin\$3 regroup\$3 consolidat\$3 congregat\$3) near9 ((interactive interactional interact\$3 participative participatory collaborative iterative personalized customized integrative) near9 (document papers documentation letter memorandum declaration report dossier file booklet handbook brochure manuscript manifesto statement copy printout paperwork guide guideline publication presentation literature essay study documentary version project writing)))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2021/12/10 09:12
S74	8	S71 and ((embed\$\$ imbed\$4 integrat\$3 insert\$3 incorporat\$3 includ\$3 nest\$3 anchor\$3 encod\$3 deploy\$3 attach\$3 encapsulat\$3 superimpos\$3 append\$3 upload\$3 pars\$3 configur\$4 serializ\$3 predefin\$3 personaliz\$4 parameteriz\$3 ingrain\$3 implement\$3 instantiat\$3 utiliz\$3 encrypt\$3 automat\$3 meld\$3 connect\$3) near9 (rule\$1 condition	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2021/12/10 09:54

		script policy regulation requirement criteria criterion standard decision filter exception arrangement check scheme sentence valid validity interest\$2 relevant relevancy))				
S73	6	S71 and ((embed\$4 imbed\$4 integrat\$3 insert\$3 incorporat\$3 includ\$3 nest\$3 anchor\$3 encod\$3 deploy\$3 attach\$3 encapsulat\$3 superimpos\$3 append\$3 upload\$3 pars\$3 configur\$4 serializ\$3 predefin\$3 personaliz\$4 parameteriz\$3 ingrain\$3 implement\$3 instantiat\$3 utiliz\$3 encrypt\$3 automat\$3 meld\$3 connect\$3) near9 (rule\$1 condition script policy regulation requirement criteria criterion standard decision filter exception arrangement check scheme sentence valid validity interest\$2))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2021/12/10 09:54
S75	3	S71 and ((parameter param variable criterion metric determinant settings endpoint factor measure pattern bechmark element watermakr perimeter bboolean comvariance preset modulo algorithm) near9 (personaliz\$3 individualiz\$3 customiz\$3 personalis\$3 optimiz\$3) near9 (content information data book article webpage website page report brochure digital magazine product guide sale playbook sale proposal whitepaper newsletter company handbook annual document))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2021/12/10 11:00
S76	12	S71 and ((generat\$3 creat\$3 produc\$3 build\$3 compos\$3 provid\$3 stimulat\$3 catalyz\$3 construct\$3 facilitat\$3 compil\$3 result\$3 deliver\$3) near9 ((derivative derived deriv\$3 personaliz\$3 individualiz\$3 customiz\$3 personalis\$3 optimiz\$3) near4 (document content item element object data information) near9 (document report brochure handbook proposal whitepaper newsletter magazine guide guideline sale playbook file paper manifesto	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2021/12/10 11:16

		book draft page webpage study literature content data)))				
S77	4,210,149	"2" and ((structure achitecture construction composition mechanism framework arragement building hierarchy model entity configuration body construct\$3 layout) near9 (rule\$1 condition script policy regulation requirement criteria criterion standard decision filter exception arrangment check scheme sentence valid validity interest\$2 relevant relevancy))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2021/12/10 15:43
S78	13	(US-8219914-\$ US-20150081611-\$ US-20130031470-\$ US-10783315-\$ US-20110029858-\$)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2021/12/10 15:43
S79	4	S78 and ((structure achitecture construction composition mechanism framework arragement building hierarchy model entity configuration body construct\$3 layout) near9 (rule\$1 condition script policy regulation requirement criteria criterion standard decision filter exception arrangment check scheme sentence valid validity interest\$2 relevant relevancy))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2021/12/10 15:43
S80	13	(US-8219914-\$ US-20150081611-\$ US-20130031470-\$ US-10783315-\$ US-20110029858-\$)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2021/12/13 09:49
S81	4	S80 and ((structure achitecture construction composition mechanism framework arragement building hierarchy model entity configuration body construct\$3 layout) near9 (rule\$1 condition script policy regulation requirement criteria criterion standard decision filter exception arrangment check scheme sentence valid validity interest\$2 relevant relevancy))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2021/12/13 09:49

S82	8	S80 and ((rule\$1 condition script policy regulation requirement criteria criterion standard decision filter exception arrangement check scheme sentence valid validity interest\$2 relevant relevancy) near9 (link url resource\$1 connection liaison associat\$3 relat\$3 linkage correlat\$3 interlink\$3 connect\$3 tie\$1 referenc\$3 gateway coupl\$3 login chain\$3 plug\$4))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2021/12/13 09:53
S83	8	S80 and ((rule\$1 condition script policy regulation requirement criteria criterion standard decision filter exception arrangement check scheme sentence valid validity interest\$2 relevant relevancy) near9 (link url resource\$1 connection liaison associat\$3 relat\$3 linkage correlat\$3 interlink\$3 connect\$3 tie\$1 referenc\$3 gateway coupl\$3 login chain\$3 plug\$4) same (module modular model mod unit cluster modulat\$3 adaptation block design system structure construction architecture component programming organization concept structure format code scheme arrangement specification plug\$4 domain node layout configuration algorithm platform))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2021/12/13 09:57
S84	7	S80 and ((client user customer username viewer subscriber customer consumer searcher client person patinet visitor deverloper empolyee operator someone learner individual applicator recipient empolyer designer owner desk reporter end-user individual advertiser) near9 (parameter param variable criterion criteria metric setting factor endpoint standard measure pattern element preset modulo schema))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2021/12/13 10:11
S85	5	S80 and ((personaliz\$3 individualiz\$3 customiz\$3 personalis\$3 optimiz\$3) near9 (interface gui ui))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2021/12/13 11:01

S86	0	S80 and ((personaliz\$3 individualiz\$3 customiz\$3 personalis\$3 optimiz\$3) near9 (interface gui ui) same (rule\$1 condition script policy regulation requirement criteria criterion standard decision filter exception arrangment check scheme sentence valid validity interest\$2 relevant relevancy))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2021/12/13 11:02
S87	0	S80 and ((personaliz\$3 individualiz\$3 customiz\$3 personalis\$3 optimiz\$3) same (interface gui ui) same (rule\$1 condition script policy regulation requirement criteria criterion standard decision filter exception arrangment check scheme sentence valid validity interest\$2 relevant relevancy))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2021/12/13 11:03
S88	6	S80 and ((personaliz\$3 individualiz\$3 customiz\$3 personalis\$3 optimiz\$3) same (interface gui ui display\$3 present\$3 presentation) same (rule\$1 condition script policy regulation requirement criteria criterion standard decision filter exception arrangment check scheme sentence valid validity interest\$2 relevant relevancy))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2021/12/13 11:04
S89	4	S80 and ((personaliz\$3 individualiz\$3 customiz\$3 personalis\$3 optimiz\$3) same (interface gui ui display\$3 present\$3 presentation) same (rule\$1 condition script policy regulation requirement criteria criterion standard decision filter exception arrangment check scheme sentence valid validity interest\$2 relevant relevancy) same (field subject value domain score range area range level box region))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2021/12/13 11:06
S90	13	S80 and ((personaliz\$3 individualiz\$3 customiz\$3 personalis\$3 optimiz\$3) near9 (input entr\$3 feedback user))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2021/12/13 11:17

S91	4	S80 and ((personaliz\$3 individualiz\$3 customiz\$3 personalis\$3 optimiz\$3) near9 (input entr\$3 feedback))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2021/12/13 11:21
S92	3	US-8219914-\$	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2021/12/13 11:22
S95	1	S94 and ((personaliz\$3 individualiz\$3 customiz\$3 personalis\$3 optimiz\$3) near9 (input entr\$3 feedback))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2021/12/13 11:23
S93	2	US-20090076834-\$	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2021/12/13 11:23
S96	7	(US-20090076834-\$ US- 20150081611-\$ US-20110029858-\$)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2021/12/13 15:11
S98	0	S97 and (master same rule)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2021/12/13 15:12
S99	0	S97 and (master same (rule condition criteria))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2021/12/13 15:13

S100	1	S97 and (master same (rule\$1 condition script policy regulation requirement criteria criterion standard decision filter exception arrangement check scheme sentence valid validity interest\$2 relevant relevancy))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2021/12/13 15:14
S101	2	S97 and ((generat\$3 creat\$3 produc\$3 build\$3 add\$3 insert\$3) with (rule\$1 condition script policy regulation requirement criteria criterion standard decision filter exception arrangement check scheme sentence valid validity interest\$2 relevant relevancy))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2021/12/13 15:22
S102	14,048	((derivative derived deriv\$3 personaliz\$3 individualiz\$3 customiz\$3 personalis\$3 optimiz\$3) near4 (document content item element object data information) near9 (document report brochure handbook proposal whitepaper newsletter magazine guide guideline sale playbook file paper manifesto book draft page webpage study literature content data) same (field text\$1field) same (rule\$1 condition script policy regulation requirement criteria criterion standard decision filter exception arrangement check scheme sentence valid validity interest\$2 relevant relevancy))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2021/12/14 07:54
S104	36,720	(G06F40/103 or G06F16/24564 or G06F40/134 or G06F40/166).cpc.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2021/12/14 07:56
S105	127	S104 and S103	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2021/12/14 07:56
S106	4,349	((derivative derived deriv\$3 personaliz\$3 individualiz\$3 customiz\$3 personalis\$3 optimiz\$3) near4 (document content item element object data information)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO;	OR	ON	2021/12/14 08:55

		near9 (document report brochure handbook proposal whitepaper newsletter magazine guide guideline sale playbook file paper manifesto book draft page webpage study literature content data) with (client user customer username viewer subscriber customer consumer searcher client person patinet visitor deverloper empolyee operator someone learner individual applicator recipient empolyer designer owner desk reporter end-user individual advertiser) with (field text\$1field value entr\$3) same (rule\$1 condition script policy regulation requirement criteria criterion standard decision filter exception arrangment check scheme sentence valid validity interest\$2 relevant relevancy))	DERWENT; IBM_TDB			
S107	30	S106 and S104	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2021/12/14 08:57
S108	14	(US-8219914-\$ US-20150081611-\$ US-20130031470-\$ US-10783315-\$ US-20110029858-\$ US-20090076834-\$)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2021/12/14 09:51
S110	14	(US-8219914-\$ US-20150081611-\$ US-20130031470-\$ US-10783315-\$ US-20110029858-\$ US-20090076834-\$)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2021/12/14 13:12
S111	7	S110 and ((embed\$\$ imbed\$4 integrat\$3 insert\$3 incorporat\$3 includ\$3 nest\$3 anchor\$3 encod\$3 deploy\$3 attach\$3 encapsulat\$3 superimpos\$3 append\$3 upload\$3 pars\$3 configur\$4 serializ\$3 predefin\$3 personaliz\$4 parameteriz\$3 ingrain\$3 implement\$3 instantiat\$3 utiliz\$3	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2021/12/14 13:15

		encrypt\$3 automat\$3 meld\$3 connect\$3) near9 (rule\$1 condition script policy regulation requirement criteria criterion standard decision filter exception arrangement check scheme sentence valid validity interest\$2))				
S112	14	(US-8219914-\$ US-20150081611-\$ US-20130031470-\$ US-10783315-\$ US-20110029858-\$ US- 20090076834-\$)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2021/12/15 09:56
S113	2	S112 and ((personaliz\$3 individualiz\$3 customiz\$3 personalis\$3 optimiz\$3) near9 parameter\$1)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2021/12/15 09:58
S115	4	S112 and (parameter\$1)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2021/12/15 10:00
S114	2	S112 and ((personaliz\$3 individualiz\$3 customiz\$3 personalis\$3 optimiz\$3) same parameter\$1)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2021/12/15 10:00
S116	14	(US-8219914-\$ US-20150081611-\$ US-20130031470-\$ US-10783315-\$ US-20110029858-\$ US- 20090076834-\$)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2021/12/15 11:04
S117	17	(US-8219914-\$ US-20150081611-\$ US-20130031470-\$ US-10783315-\$ US-20110029858-\$ US- 20090076834-\$ US-20120159300-\$)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2021/12/15 12:46

S118	2	S117 and ((personaliz\$3 individualiz\$3 customiz\$3 personalis\$3 optimiz\$3) same parameter\$1)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2021/12/15 12:46
S119	12	S117 and ((embed\$\$ imbed\$4 integrat\$3 insert\$3 incorporat\$3 includ\$3 nest\$3 anchor\$3 encod\$3 deploy\$3 attach\$3 encapsulat\$3 superimpos\$3 append\$3 upload\$3 pars\$3 configur\$4 serializ\$3 predefin\$3 personaliz\$4 parameteriz\$3 ingrain\$3 implement\$3 instantiat\$3 utiliz\$3 encrypt\$3 automat\$3 meld\$3 connect\$3) near9 (rule\$1 condition script policy regulation requirement criteria criterion standard decision filter exception arrangement check scheme sentence valid validity interest\$2 relevant relevancy))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2021/12/15 12:47
S120	17	(US-8219914-\$ US-20150081611-\$ US-20130031470-\$ US-10783315-\$ US-20110029858-\$ US-20090076834-\$ US-20120159300-\$)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2021/12/16 13:55
S121	6	S120 and ((rule\$1 condition script policy regulation requirement criteria criterion standard decision filter exception arrangement check scheme sentence valid validity interest\$2 relevant relevancy) near9 (field value\$1 entr\$3 input))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2021/12/16 13:58
S122	17	(US-8219914-\$ US-20150081611-\$ US-20130031470-\$ US-10783315-\$ US-20110029858-\$ US-20090076834-\$ US-20120159300-\$)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2021/12/16 19:17
S123	7	S122 and ((updat\$3 revis\$3 upgrad\$3 modif\$4 amend\$3 synchroniz\$4 renew\$3 adapt\$3 moderni\$4 insert\$3 chang\$3) with (derivative derived deriv\$3 personaliz\$3 individualiz\$3	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2021/12/16 19:17

		customiz\$3 personalis\$3 optimiz\$3))				
S124	17	(US-8219914-\$ US-20150081611-\$ US-20130031470-\$ US-10783315-\$ US-20110029858-\$ US- 20090076834-\$ US-20120159300-\$)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2021/12/17 10:16

EAST Search History (Interference)

<This search history is empty>

12/17/2021 1:35:27 PM

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APPLICATION NUMBER	FILING OR 371(C) DATE	FIRST NAMED APPLICANT	ATTY. DOCKET NO./TITLE
17/503,675	10/18/2021	Nicholas Kingsley Mason	56000-701.301

CONFIRMATION NO. 7023

21971
WILSON SONSINI GOODRICH & ROSATI
650 PAGE MILL ROAD
PALO ALTO, CA 94304-1050

PUBLICATION NOTICE



OC000000131584954

Title:METHODS AND SYSTEMS FOR INTERACTIVE CONTENT CREATION

Publication No.US-2022-0035988-A1

Publication Date:02/03/2022

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.

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
17/503,675	10/18/2021	Nicholas Kingsley Mason	56000-701.301	7023
21971 7590 02/28/2022 WILSON SONSINI GOODRICH & ROSATI 650 PAGE MILL ROAD PALO ALTO, CA 94304-1050			EXAMINER MRABI, HASSAN	
			ART UNIT 2144	PAPER NUMBER
			NOTIFICATION DATE 02/28/2022	DELIVERY MODE 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):

patentdocket@wsgr.com

<i>Applicant-Initiated Interview Summary</i>	Application No. 17/503,675	Applicant(s) Mason, Nicholas Kingsley		
	Examiner HASSAN MRABI	Art Unit 2144	AIA (First Inventor to File) Status Yes	Page 1 of 1

All Participants (applicant, applicants representative, PTO personnel)	Title	Type
HASSAN MRABI	Primary Examiner	Telephonic
Peter Eng	Attorney	
Shuaimin Liu	Attorney	
Nick Mason	Inventor	

Date of Interview: 23 February 2022

Issues Discussed:

Proposed Amendment(s)

The proposed amendment seems to overcome the prior arts of record.

☒ Attachment

/HASSAN MRABI/ Examiner, Art Unit 2144	
Applicant is reminded that a complete written statement as to the substance of the interview must be made of record in the application file. It is the applicants responsibility to provide the written statement, unless the interview was initiated by the Examiner and the Examiner has indicated that a written summary will be provided. See MPEP 713.04 Please further see: MPEP 713.04 Title 37 Code of Federal Regulations (CFR) § 1.133 Interviews, paragraph (b) 37 CFR § 1.2 Business to be transacted in writing	

Applicant recordation instructions: The formal written reply to the last Office action must include the substance of the interview. (See MPEP section 713.04). If a reply to the last Office action has already been filed, applicant is given a non-extendable period of the longer of one month or thirty days from this interview date, or the mailing date of this interview summary form, whichever is later, to file a statement of the substance of the interview.

Examiner recordation instructions: Examiners must summarize the substance of any interview of record. A complete and proper recordation of the substance of an interview should include the items listed in MPEP 713.04 for complete and proper recordation including the identification of the general thrust of each argument or issue discussed, a general indication of any other pertinent matters discussed regarding patentability and the general results or outcome of the interview, to include an indication as to whether or not agreement was reached on the issues raised.

Application No: 17/503,675

Title: METHODS AND SYSTEMS FOR INTERACTIVE CONTENT CREATION

Attorney Docket No: 56000-701.301

Patent Examiner Interview Agenda – February 23, 2022 at 12:00 PM EST/9:00 AM PST

- Attendees: Examiner Mrabi, Applicant's representatives Peter Eng and Shuaimin Liu and Applicant Nick Mason
- Discuss Non-Final Office Action Mailed December 22, 2021
 - Discuss 103 rejections
 - Discuss cited references, in particular Hauser (US20110029858), Shivakumar (US20150081611) and Rauber (US20090076834). Discuss potential clarifying claim amendments, for example as shown below

1. **(Draft)** A system for automatically assembling an interactive document comprising:
 - a server in communication with a plurality of user devices over a network, wherein the server comprises: a memory for storing a set of software instructions, and one or more processors configured to execute the set of software instructions to:
 - (a) embed a first set of rules into a first modular item of a first document, wherein the first document comprises a first set of modular items;
 - (b) receive one or more parameters for personalizing the first document to generate a derivative document;
 - (c) select to display or hide at least the first modular item from the first document based at least in part on a value of the one or more parameters and the first set of rules or pull a second modular item from a second document based at least in part on the value of the one or more parameters and the a first-second set of rules embedded with the second modular item, wherein the second document comprises a second set of modular items, and wherein the first document and the second document are master documents that one or more of the first set of modular items and one or more of the second set of modular items are embedded with rules; and
 - (d) assemble the second modular item with the first document to generate thea derivative document by assembling the second modular item with the first document or by displaying or hiding the at least first modular item from the first document, wherein the derivative document comprises a plurality of modular items that are not embedded with rules.

Support of the amendment can be found at, for example, paragraphs [0033], [0036], [0082] and [0099].

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application:

Inventors: Nicholas Kingsley Mason

Application No.: 17/503,675

Filed: October 18, 2021

Title: **METHODS AND SYSTEMS FOR
INTERACTIVE CONTENT CREATION**

Confirmation No.: 7023

Examiner: Mrabi, Hassan

Group Art Unit: 2144

Customer No. 21971

Mail Stop Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

AMENDMENT AND RESPONSE TO NON-FINAL OFFICE ACTION

Dear Commissioner:

This communication is in response to the Non-Final Office Action mailed **December 22, 2021** (the “Office Action”). Applicant respectfully requests reconsideration of the above-referenced application in view of the following amendments and remarks.

Amendments to the Claims begin on page **2** of this paper.

A **Summary of the Interview** begins on page **5** of this paper.

Remarks begin on page **6** of this paper.

AMENDMENTS TO THE CLAIMS

The following listing of claims replaces any prior version of claims in the application.

1. (Currently Amended) A system for automatically assembling an interactive document comprising:
 - a server in communication with a plurality of user devices over a network, wherein the server comprises: a memory for storing a set of software instructions, and one or more processors configured to execute the set of software instructions to:
 - (a) embed a first set of rules into a first modular item of a first document, wherein the first document comprises a first set of modular items;
 - (b) receive one or more parameters for personalizing the first document to generate a derivative document;
 - (c) select to display or hide at least the first modular item from the first document based at least in part on a value of the one or more parameters and the first set of rules or pull a second modular item from a second document based at least in part on [[a]]the value of the one or more parameters and the first a second set of rules embedded with the second modular item, wherein the second document comprises a second set of modular items, and wherein the first document and the second document are master documents that one or more of the first set of modular items and one or more of the second set of modular items are embedded with rules; and
 - (d) ~~assemble the second modular item with the first document to generate [[a]]the derivative document~~ by assembling the second modular item with the first document or by displaying or hiding the at least first modular item from the first document, wherein the derivative document comprises a plurality of modular items that are not embedded with rules.
2. (Original) The system of claim 1, wherein the first modular item is stored in a structured data that defines the first set of rules.
3. (Original) The system of claim 1, wherein the first set of rules define a link between the first modular item and another document or a rule for assembling the first modular item into a derivative document.
4. (Original) The system of claim 1, wherein the value of the one or more parameters is specified by a user via a user interface.

5. (Original) The system of claim 4, wherein the user interface displays one or more personalization fields that are automatically generated based on the first set of rules.
6. (Currently Amended) The system of claim 5, wherein at least one of the one or more personalization fields is generated based on [[a]]the second set of rules associated with the second modular item.
7. (Original) The system of claim 5, wherein the one or more processors are further configured to: upon receiving an input in a given personalization field, display at least a portion of the content from the first document that is related to the given personalization field.
8. (Original) The system of claim 1, wherein the value of the one or more parameters is specified by a user in a text file.
9. (Original) The system of claim 1, wherein the first set of rules includes a mapping relationship that maps the first modular item to a style for rendering the first modular item.
10. (Original) The system of claim 9, wherein the derivative document is displayed to a reader using the mapped style.
11. (Original) The system of claim 10, wherein the server is configured to collect data about the reader's interaction with the derivative document to extract insight data.
12. (Original) The system of claim 1, wherein the one or more processors are configured to further receive an instruction for personalizing the first modular item or the second modular item.
13. (Original) The system of claim 1, wherein the one or more processors are configured to further store the one or more parameters and a reference to the first document for updating the derivative document.
14. (Original) The system of claim 13, wherein the one or more processors are configured to further convert the derivative document into a master document by storing the one or more parameters as a set of rules associated with the derivative document.
15. (Currently Amended) A system for personalizing an interactive document comprising:
a memory for storing a set of software instructions, and one or more processors
configured to execute the set of software instructions to:
 - (a) ~~a first component configured to create~~ one or more modular items of a first document, wherein at least one modular item is ~~associated~~ embedded with a first set of rules defining a link between the at least one modular item and ~~another~~ a second

document or a first set of rules for assembling the at least one modular item into a derivative document; ~~[[and]]~~

~~(b) a second component configured to:~~

~~(i)(b)~~ receive an instruction for personalizing a ~~given~~the first document;

~~(ii)(c)~~ assemble a plurality of modular items to generate ~~[[a]]the~~ derivative document of the ~~given first~~ document, wherein the plurality of modular items comprise the at least one item displayed or hidden from the given document based on the first set of rules and the instruction or the plurality of modular items are pulled from the given first document and at least another the second document based at least in part on [[a]]the first set of rules associated embedded with the at least one modular item of the given first document, wherein the first document and the second document are master documents that one or more modular items of the second document are embedded with rules; and

(iii) render the derivative document using a style associated with the ~~given first~~ document and wherein the plurality of modular items of the derivative document are not embedded with rules.

16. (Currently Amended) The system of claim 15, wherein the ~~first component comprises one or more processors are further configured to provide~~ a first user interface ~~configured to for~~ receiving a user input to generate the first set of rules.

17. (Original) The system of claim 16, wherein the first user interface displays a plurality of fields for defining the first set of rules.

18. (Currently Amended) The system of claim 15, wherein the ~~first component comprises one or more processors are further configured to provide~~ a second user interface ~~configured to for~~ receiving user input to customize the one or more modular items.

19. (Currently Amended) The system of claim 15, wherein the first set of rules associated embedded with the at least one item of the ~~given first~~ document includes a mapping relationship that maps the at least one item to the style.

20. (Currently Amended) The system of claim 15, wherein the ~~second component comprises one or more processors are further configured to provide~~ a user interface for receiving the instruction for personalizing the ~~given first~~ document.

SUMMARY OF THE INTERVIEW

Applicant is appreciative of Examiner Hassan Mrabi for extending the courtesy of an interview to Applicant's representatives, Peter Eng, Shuaimin Liu, and Nicholas Kingsley Mason on February 23, 2022. During the interview, arguments consistent with those detailed herein were discussed.

REMARKS

Claims 1-20 were pending prior to entry of the abovementioned amendments. Claims 1, 6, 15, 16, 18-20 have been amended for clarification and antecedent basis purposes. The amendments to the claims are fully supported by the application as originally filed, U.S. Patent App. No. 17/503,675 (the “Application”), such as at paragraphs [0033], [0036], and [0082]. No new matter is added. Accordingly, upon entry, claims 1-20 will remain pending.

Reconsideration is respectfully requested in light of the abovementioned amendments and following remarks.

35 U.S.C. § 112

Claim 15 is rejected under 35 U.S.C. § 112, sixth paragraph. Applicant submits that the claim as amended does not invoke 35 U.S.C. § 112(f) at least because claim 15 recites structural modifiers such as “a memory unit for storing a set of software instructions and one or more processors configured to execute the set of software instructions.” Thus, the claim recites sufficient structure for performing the claimed functions to preclude application of 35 U.S.C. § 112(f). Applicant respectfully requests withdrawal of the interpretation of claim 15 under 35 U.S.C. § 112(f).

DOUBLE PATENTING

Claims 1-20 are rejected under the judicially created doctrine of obviousness-type double patenting over claims 1-20 of U.S. Patent Application No. 17/347,899 (“the ‘899 patent application”).

Without conceding in the basis of rejection, and solely to expedite the prosecution of this application, Applicant submits concurrently herewith a terminal disclaimer over the ‘899 patent application. Accordingly, Applicant respectfully requests that the double patenting rejections be withdrawn.

35 U.S.C. §103

Claim 1-15 and 18-20 are rejected under 35 U.S.C. § 103(a) over Hauser, US20110029858 (hereafter “Hauser”) in view of Shivakumar, US20150081611 (hereafter “Shivakumar”), and further in view of Rauber, et al, US20090076834 (hereafter “Rauber”).

Without conceding in the basis of rejection, and solely to expedite the prosecution of this application, Applicant has amended claim 1 to clarify certain differences of the claimed subject matter over the combination of the cited arts. Applicant has amended claim 1 to recite “wherein the first document and the second document are master documents that one or more of the first set of modular items and one or more of the second set of modular items are embedded with rules... wherein the derivative document comprises a plurality of modular items that are not embedded with rules.” Claim 15 recites similar features.

Applicant submits that claim 1 is not obvious over the asserted combination of Hauser, Shivakumar and Rauber because these references, alone or in combination, do not meet all of the elements of claim 1. For example, nothing in Hauser teaches or discloses “first document and the second document are master documents that one or more of the first set of modular items and one or more of the second set of modular items are embedded with rules... wherein the derivative document comprises a plurality of modular items that are not embedded with rules,” as recited in claim 1. Neither Shivakumar nor Rauber cures the abovementioned deficiencies of Hauser.

Accordingly, Applicant respectfully requests that the § 103 rejection of claims 1 and 15 be withdrawn.

Without conceding in the basis of rejection, Applicant submits that claims 2-14 and 18-20 are not obvious over the asserted combinations of cited references for at least the reason that these claims depend from claim 1 and claim 15, respectively, and recite additional elements of particular advantage and utility. The asserted combinations do not meet all of the elements of claims 1 and 15 much less the combination of these claims. Accordingly, Applicant respectfully requests that the § 103 rejections of claims 2-14 and 18-20 also be withdrawn.

Claim 16-17 are rejected under 35 U.S.C. § 103(a) over Hauser, in view of Shivakumar, Rauber, and further in view of Vincent, III, US20120159300 (hereafter “Vincent”).

Without conceding in the basis of rejection, Applicant submits that claims 16-17 are not obvious over Hauser, Shivakumar, Rauber and Vincent, for at least the reason that these claims depend from and include all of the elements of claim 15, and recite additional elements of particular advantage and utility. The asserted combination of Hauser, Shivakumar and Rauber does not meet all of the elements of claim 15, much less the combination of elements of claims

16-17, and Vincent does not cure the abovementioned deficiencies of Hauser, Shivakumar and Rauber.

Accordingly, at least for this reason, Applicant respectfully requests that the § 103 rejections of claims 16-17 be withdrawn.

It shall be understood herein that any instance in which Applicant has addressed certain comments set forth by the Office shall not be construed as a concession to other comments or arguments advanced by the Office. Any circumstance in which Applicant has amended or cancelled a claim also does not mean that Applicant concedes to the arguments or positions advanced by the Office with respect to that claim or other claims pending herein.

CONCLUSION

Applicant respectfully requests that the Examiner advance the application to issuance. Should the Examiner have any questions, the Examiner is encouraged to contact the undersigned. The Commissioner is authorized to charge any additional fees which may be required, including petition, extension of time fees, and application size fees, to deposit Account No. 23-2415 (Docket No. 56000-701.301).

Respectfully submitted,

WILSON SONSINI GOODRICH & ROSATI

Date: 3/1/2022

By: /Shuaimin Liu/
Shuaimin Liu, Ph.D.
Registration No. L1361

650 Page Mill Road
Palo Alto, CA 94304-1050
Direct Dial: (650) 849-3332
Customer No. 021971

Electronic Acknowledgement Receipt

EFS ID:	45116038
Application Number:	17503675
International Application Number:	
Confirmation Number:	7023
Title of Invention:	METHODS AND SYSTEMS FOR INTERACTIVE CONTENT CREATION
First Named Inventor/Applicant Name:	Nicholas Kingsley Mason
Customer Number:	21971
Filer:	Shuaimin Liu/Joan Abriam
Filer Authorized By:	Shuaimin Liu
Attorney Docket Number:	56000-701.301
Receipt Date:	01-MAR-2022
Filing Date:	18-OCT-2021
Time Stamp:	14:16:31
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		Turtl_56000_701_301_Response.pdf	172267 64741f98d09bb274a1d3022afe1df0e1e5f5de2b	yes	9

	Multipart Description/PDF files in .zip description		
	Document Description	Start	End
	Amendment/Request for Reconsideration-After Non-Final Rejection	1	1
	Claims	2	4
	Applicant summary of interview with examiner	5	5
	Applicant Arguments/Remarks Made in an Amendment	6	9

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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.

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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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PATENT APPLICATION FEE DETERMINATION RECORD Substitute for Form PTO-875	Application or Docket Number 17/503,675	Filing Date 10/18/2021	☐ To be Mailed
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ENTITY: ☒ LARGE ☐ SMALL ☐ MICRO

APPLICATION AS FILED - PART I

FOR	(Column 1) NUMBER FILED	(Column 2) NUMBER EXTRA	RATE (\$)	FEE (\$)
☐ BASIC FEE (37 CFR 1.16(a), (b), or (c))	N/A	N/A	N/A	
☐ SEARCH FEE (37 CFR 1.16(k), (i), or (m))	N/A	N/A	N/A	
☐ EXAMINATION FEE (37 CFR 1.16(o), (p), or (q))	N/A	N/A	N/A	
TOTAL CLAIMS (37 CFR 1.16(i))	minus 20 =	*	x \$100 =	
INDEPENDENT CLAIMS (37 CFR 1.16(h))	minus 3 =	*	x \$480 =	
☐ 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)	RATE (\$)	ADDITIONAL FEE (\$)	
AMENDMENT	03/01/2022	CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA			
	Total (37 CFR 1.16(i))	* 20	Minus	** 20	= 0	x \$100 =	0	
	Independent (37 CFR 1.16(h))	* 2	Minus	*** 3	= 0	x \$480 =	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	
AMENDMENT		CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA			
	Total (37 CFR 1.16(i))	*	Minus	**	=	x \$0 =		
	Independent (37 CFR 1.16(h))	*	Minus	***	=	x \$0 =		
	☐ Application Size Fee (37 CFR 1.16(s))							
	☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))							
						TOTAL ADD'L FEE		
* If the entry in column 1 is less than the entry in column 2, write "0" in column 3.						LIE		
** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20".						/FREDERICK E BRISCOE/		
*** 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.**

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

Doc Code: DIST.E.FILE Document Description: Electronic Terminal Disclaimer - Filed		PTO/SB/25 U.S. Patent and Trademark Office Department of Commerce	
Electronic Petition Request	TERMINAL DISCLAIMER TO OBIATE A PROVISIONAL DOUBLE PATENTING REJECTION OVER A PENDING "REFERENCE" APPLICATION		
Application Number	17503675		
Filing Date	18-Oct-2021		
First Named Inventor	Nicholas Mason		
Attorney Docket Number	56000-701.301		
Title of Invention	METHODS AND SYSTEMS FOR INTERACTIVE CONTENT CREATION		
☒ Filing of terminal disclaimer does not obviate requirement for response under 37 CFR 1.111 to outstanding Office Action ☒ This electronic Terminal Disclaimer is not being used for a Joint Research Agreement.			
Owner	Percent Interest		
TURTL SURF & IMMERSE LIMITED	100%		
The owner(s) of percent interest listed above in the instant application hereby disclaims, except as provided below, the terminal part of the statutory term of any patent granted on the instant application which would extend beyond the expiration date of the full statutory term of any patent granted on pending reference Application Number(s)			
17347899 filed on 06/15/2021 as the term of any patent granted on said reference application may be shortened by any terminal disclaimer filed prior to the grant of any patent on the pending reference application. The owner hereby agrees that any patent so granted on the instant application shall be enforceable only for and during such period that it and any patent granted on the reference application are commonly owned. This agreement runs with any patent granted on the instant application and is binding upon the grantee, its successors or assigns. In making the above disclaimer, the owner does not disclaim the terminal part of any patent granted on the instant application that would extend to the expiration date of the full statutory term of any patent granted on said reference application, "as the term of any patent granted on said reference application may be shortened by any terminal disclaimer filed prior to the grant of any patent on the pending reference application," in the event that any such patent granted on the pending reference application: expires for failure to pay a maintenance fee, is held unenforceable, is found invalid by a court of competent jurisdiction, is statutorily disclaimed in whole or terminally disclaimed under 37 CFR 1.321, has all claims canceled by a reexamination certificate, is reissued, or is in any manner terminated prior to the expiration of its full statutory term as shortened by any terminal disclaimer filed prior to its grant.			
☒ Terminal disclaimer fee under 37 CFR 1.20(d) is included with Electronic Terminal Disclaimer request.			

☐ I certify, in accordance with 37 CFR 1.4(d)(4), that the terminal disclaimer fee under 37 CFR 1.20(d) required for this terminal disclaimer has already been paid in the above-identified application.	
Applicant claims the following fee status: ☐ Small Entity ☐ Micro Entity ☒ Regular Undiscounted	
I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.	
THIS PORTION MUST BE COMPLETED BY THE SIGNATORY OR SIGNATORIES I certify, in accordance with 37 CFR 1.4(d)(4) that I am: ☒ An attorney or agent registered to practice before the Patent and Trademark Office who is of record in this application Registration Number <u>77635</u> ☐ A sole inventor ☐ A joint inventor; I certify that I am authorized to sign this submission on behalf of all of the inventors as evidenced by the power of attorney in the application ☐ A joint inventor; all of whom are signing this request	
Signature	/Sungsoo Lee/
Name	Sungsoo Lee

*Statement under 37 CFR 3.73(b) is required if terminal disclaimer is signed by the assignee (owner).
 Form PTO/SB/96 may be used for making this certification. See MPEP § 324.

Electronic Patent Application Fee Transmittal

Application Number:	17503675			
Filing Date:	18-Oct-2021			
Title of Invention:	METHODS AND SYSTEMS FOR INTERACTIVE CONTENT CREATION			
First Named Inventor/Applicant Name:	Nicholas Kingsley Mason			
Filer:	Sungsoo Lee/Joan Abriam			
Attorney Docket Number:	56000-701.301			
Filed as Large Entity				
Filing Fees for Utility under 35 USC 111(a)				
Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
Basic Filing:				
STATUTORY OR TERMINAL DISCLAIMER	1814	1	170	170
Pages:				
Claims:				
Miscellaneous-Filing:				
Petition:				
Patent-Appeals-and-Interference:				
Post-Allowance-and-Post-Issuance:				

Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
Extension-of-Time:				
Miscellaneous:				
Total in USD (\$)				170

Doc Code: DISQ.E.FILE

Document Description: Electronic Terminal Disclaimer – Approved

Application No.: 17503675

Filing Date: 18-Oct-2021

Applicant/Patent under Reexamination: Mason

Electronic Terminal Disclaimer filed on March 25, 2022

☒ APPROVED

This patent is subject to a terminal disclaimer

☐ DISAPPROVED

Approved/Disapproved by: Electronic Terminal Disclaimer automatically approved by EFS-Web

U.S. Patent and Trademark Office

Electronic Acknowledgement Receipt

EFS ID:	45318925
Application Number:	17503675
International Application Number:	
Confirmation Number:	7023
Title of Invention:	METHODS AND SYSTEMS FOR INTERACTIVE CONTENT CREATION
First Named Inventor/Applicant Name:	Nicholas Kingsley Mason
Customer Number:	21971
Filer:	Sungsoo Lee/Joan Abriam
Filer Authorized By:	Sungsoo Lee
Attorney Docket Number:	56000-701.301
Receipt Date:	25-MAR-2022
Filing Date:	18-OCT-2021
Time Stamp:	12:18:11
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	DA
Payment was successfully received in RAM	\$ 170
RAM confirmation Number	E20223OC18083698
Deposit Account	232415
Authorized User	Joan Abriam

The Director of the USPTO is hereby authorized to charge indicated fees and credit any overpayment as follows:

37 CFR 1.19 (Document supply fees)

37 CFR 1.21 (Miscellaneous fees and charges)

185 of 220

FOLEON EX1002

IPR2026-00403

File Listing:					
Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Terminal Disclaimer-Filed (Electronic)	eTerminal-Disclaimer.pdf	43815	no	2
			eae5f751a1088758d5ff8e6074f6c19ae8671 9d0		
Warnings:					
Information:					
2	Fee Worksheet (SB06)	fee-info.pdf	37841	no	2
			75e91f1e2859797fc399c516c6f209e4b88d 9469		
Warnings:					
Information:					
Total Files Size (in bytes):			81656		
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
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

NOTICE OF ALLOWANCE AND FEE(S) DUE

21971 7590 04/07/2022
WILSON SONSINI GOODRICH & ROSATI
650 PAGE MILL ROAD
PALO ALTO, CA 94304-1050

EXAMINER

MRABI, HASSAN

ART UNIT

PAPER NUMBER

2144

DATE MAILED: 04/07/2022

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
17/503,675	10/18/2021	Nicholas Kingsley Mason	56000-701.301	7023

TITLE OF INVENTION: METHODS AND SYSTEMS FOR INTERACTIVE CONTENT CREATION

APPLN. TYPE	ENTITY STATUS	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	UNDISCOUNTED	\$1200	\$0.00	\$0.00	\$1200	07/07/2022

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. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Maintenance fees are due in utility patents issuing on applications filed on or after Dec. 12, 1980. It is patentee's responsibility to ensure timely payment of maintenance fees when due. More information is available at www.uspto.gov/PatentMaintenanceFees.

PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), by mail or fax, or via EFS-Web.

By mail, send to: Mail Stop ISSUE FEE
Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450

By fax, send to: (571)-273-2885

INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee notifications.

CURRENT CORRESPONDENCE ADDRESS (Note: Use Block 1 for any change of address)

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.

21971 7590 04/07/2022
WILSON SONSINI GOODRICH & ROSATI
650 PAGE MILL ROAD
PALO ALTO, CA 94304-1050

Certificate of Mailing or Transmission

I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUE FEE address above, or being transmitted to the USPTO via EFS-Web or by facsimile to (571) 273-2885, on the date below.

(Typed or printed name)
(Signature)
(Date)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
17/503,675	10/18/2021	Nicholas Kingsley Mason	56000-701.301	7023

TITLE OF INVENTION: METHODS AND SYSTEMS FOR INTERACTIVE CONTENT CREATION

APPLN. TYPE	ENTITY STATUS	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	UNDISCOUNTED	\$1200	\$0.00	\$0.00	\$1200	07/07/2022

EXAMINER	ART UNIT	CLASS-SUBCLASS
MRABI, HASSAN	2144	715-234000

1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).

☐ Change of correspondence address (or Change of Correspondence Address form PTO/AIA/122 or PTO/SB/122) attached.

☐ "Fee Address" indication (or "Fee Address" Indication form PTO/AIA/47 or PTO/SB/47; Rev 03-02 or more recent) attached. **Use of a Customer Number is required.**

2. For printing on the patent front page, list

(1) The names of up to 3 registered patent attorneys or agents OR, alternatively,

1 _____

(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.

2 _____

3 _____

3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)

PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. If an assignee is identified below, the document must have been previously recorded, or filed for recordation, as set forth in 37 CFR 3.11 and 37 CFR 3.81(a). Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE

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

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

4a. Fees submitted: ☐ Issue Fee ☐ Publication Fee (if required) ☐ Advance Order - # of Copies _____

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

☐ Electronic Payment via EFS-Web ☐ Enclosed check ☐ Non-electronic payment by credit card (Attach form PTO-2038)

☐ The Director is hereby authorized to charge the required fee(s), any deficiency, or credit any overpayment to Deposit Account No. _____

5. Change in Entity Status (from status indicated above)

☐ Applicant certifying micro entity status. See 37 CFR 1.29

☐ Applicant asserting small entity status. See 37 CFR 1.27

☐ Applicant changing to regular undiscounted fee status.

NOTE: Absent a valid certification of Micro Entity Status (see forms PTO/SB/15A and 15B), issue fee payment in the micro entity amount will not be accepted at the risk of application abandonment.

NOTE: If the application was previously under micro entity status, checking this box will be taken to be a notification of loss of entitlement to micro entity status.

NOTE: Checking this box will be taken to be a notification of loss of entitlement to small or micro entity status, as applicable.

NOTE: This form must be signed in accordance with 37 CFR 1.31 and 1.33. See 37 CFR 1.4 for signature requirements and certifications.

Authorized Signature _____

Date _____

Typed or printed name _____

Registration No. _____



UNITED STATES PATENT AND TRADEMARK OFFICE

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

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
17/503,675	10/18/2021	Nicholas Kingsley Mason	56000-701.301	7023
21971	7590	04/07/2022	EXAMINER	
WILSON SONSINI GOODRICH & ROSATI			MRABI, HASSAN	
650 PAGE MILL ROAD			ART UNIT	
PALO ALTO, CA 94304-1050			PAPER NUMBER	
			2144	
DATE MAILED: 04/07/2022				

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b) (Applications filed on or after May 29, 2000)

The Office has discontinued providing a Patent Term Adjustment (PTA) calculation with the Notice of Allowance.

Section 1(h)(2) of the AIA Technical Corrections Act amended 35 U.S.C. 154(b)(3)(B)(i) to eliminate the requirement that the Office provide a patent term adjustment determination with the notice of allowance. See Revisions to Patent Term Adjustment, 78 Fed. Reg. 19416, 19417 (Apr. 1, 2013). Therefore, the Office is no longer providing an initial patent term adjustment determination with the notice of allowance. The Office will continue to provide a patent term adjustment determination with the Issue Notification Letter that is mailed to applicant approximately three weeks prior to the issue date of the patent, and will include the patent term adjustment on the patent. Any request for reconsideration of the patent term adjustment determination (or reinstatement of patent term adjustment) should follow the process outlined in 37 CFR 1.705.

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

OMB Clearance and PRA Burden Statement for PTOL-85 Part B

The Paperwork Reduction Act (PRA) of 1995 requires Federal agencies to obtain Office of Management and Budget approval before requesting most types of information from the public. When OMB approves an agency request to collect information from the public, OMB (i) provides a valid OMB Control Number and expiration date for the agency to display on the instrument that will be used to collect the information and (ii) requires the agency to inform the public about the OMB Control Number's legal significance in accordance with 5 CFR 1320.5(b).

The information collected by PTOL-85 Part B is required by 37 CFR 1.311. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 30 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, Virginia 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450. Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

Privacy Act Statement

The Privacy Act of 1974 (P.L. 93-579) requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b); (2) 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.

Notice of Allowability	Application No. 17/503,675	Applicant(s) Mason, Nicholas Kingsley	
	Examiner HASSAN MRABI	Art Unit 2144	AIA (FITF) Status Yes

-- 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 03/01/2022.
☐ 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)	5. ☐ Examiner's Amendment/Comment
2. ☐ Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date _____.	6. ☒ Examiner's Statement of Reasons for Allowance
3. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material _____.	7. ☐ Other _____.
4. ☒ Interview Summary (PTO-413), Paper No./Mail Date. <u>03/24/2022</u> .	

/HASSAN MRABI/ Examiner, Art Unit 2144	
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Notice of Pre-AIA or AIA Status

1. The present application, filed on or after March 16, 2013, is being examined under the first inventor to file provisions of the AIA.

Remark

2. This Office action has been issued in response to amendment filed on 03/01/2022.

Terminal Disclaimer

3. The terminal disclaimer filed on 03/25/2022 has been reviewed and is accepted. The terminal disclaimer has been recorded.

Allowance

4. Claims (1-14) and (15-20) are allowable.

Reason for Allowance

5. The cited arts of record, by Hauser. US Patent Application Publication US 20110029858 A1

6. (hereinafter Hauser) in view of Shivakumar. US Patent Application Publication US 20150081611 A1 (hereinafter Shivakumar) and further in view of Rauber et al. US Patent Application

Publication US 20090076834 A1 (hereinafter Rauber) and further in view of Vincent, III. US Patent Application Publication US 20120159300 A1 (hereinafter Vincent) teach interactive content creation.

7. Claims (1-14) and (15-20) are allowable. Independent claims 1 and 15 are allowable because the cited arts of record, Hauser. US Patent Application Publication US 20110029858 A1

8. (hereinafter Hauser) in view of Shivakumar. US Patent Application Publication US 20150081611 A1 (hereinafter Shivakumar) and further in view of Rauber et al. US Patent Application Publication US 20090076834 A1 (hereinafter Rauber) and further in view of Vincent, III. US Patent Application Publication US 20120159300 A1 (hereinafter Vincent) do not explicitly disclose, teach, or suggest the claimed limitations of:

Claim 1.

(c) select to display or hide at least the first modular item from the first document based at least in part on a value of the one or more parameters and the first set of rules or pull a second modular item from a second document based at least in part on I[a]] the value of the one or more parameters and ~~the first~~ a second set of rules embedded with the second modular item, wherein the second document comprises a second set of modular items, and wherein the first document and the second document are master documents that one or more of the first set of modular items and one or more of the second set of modular items are embedded with rules; and

(d) ~~assemble the second modular item with the first document to generate I[a]] the derivative document by assembling the second modular item with the first document or by displaying or hiding the at least first modular item from the first document, wherein the derivative document comprises a plurality of modular items that are not embedded with rules.~~

Claim 15

(c) assemble a plurality of modular items to generate [a] the derivative document of the ~~given first~~ document, wherein the plurality of modular items comprise the at least one item displayed or hidden from the given document based on the first set of rules and the instruction or the plurality of modular items are pulled from the ~~given first~~ document and ~~at least another~~ the second document based at least in part on I [[a]] the first set of rules ~~associated~~ embedded with the at least one modular item of the ~~given first~~ document, wherein the first document and the second document are master documents that one or more modular items of the second document are embedded with rules; and

(iii) render the derivative document using a style associated with the ~~given first~~ document and wherein the plurality of modular items of the derivative document are not embedded with rules.

In combination with all other features in the claim).

Conclusion

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to HASSAN MRABI whose telephone number is (571)272-8875. The examiner can normally be reached on M-F 7:30 am - 4:00 pm.

10. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Scott Baderman can be reached on (571)272-3644. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2144

11. 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.

/HASSAN MRABI/
Examiner, Art Unit 2144

<i>Examiner-Initiated Interview Summary</i>	Application No. 17/503,675	Applicant(s) Mason, Nicholas Kingsley		
	Examiner HASSAN MRABI	Art Unit 2144	AIA (First Inventor to File) Status Yes	Page 1 of 1

All Participants (applicant, applicants representative, PTO personnel)	Title	Type
HASSAN MRABI	Primary Examiner	Telephonic
Shuaimin Liu	Attorney	

Date of Interview: 24 March 2022

Issues Discussed:

Non-statutory Double Patenting

Applicant agreed to submit the TD.

/HASSAN MRABI/ Examiner, Art Unit 2144	
Applicant is reminded that a complete written statement as to the substance of the interview must be made of record in the application file. It is the applicants responsibility to provide the written statement, unless the interview was initiated by the Examiner and the Examiner has indicated that a written summary will be provided. See MPEP 713.04 Please further see: MPEP 713.04 Title 37 Code of Federal Regulations (CFR) § 1.133 Interviews, paragraph (b) 37 CFR § 1.2 Business to be transacted in writing	

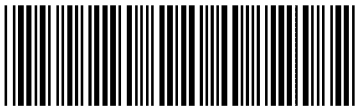
Applicant recordation instructions: It is not necessary for applicant to provide a separate record of the substance of interview.

Examiner recordation instructions: Examiners must summarize the substance of any interview of record. A complete and proper recordation of the substance of an interview should include the items listed in MPEP 713.04 for complete and proper recordation including the identification of the general thrust of each argument or issue discussed, a general indication of any other pertinent matters discussed regarding patentability and the general results or outcome of the interview, to include an indication as to whether or not agreement was reached on the issues raised.

<i>Index of Claims</i> 	Application/Control No. 17/503,675	Applicant(s)/Patent Under Reexamination Mason, Nicholas Kingsley
	Examiner HASSAN MRABI	Art Unit 2144

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=	Allowed	÷	Restricted	I	Interference	O	Objected

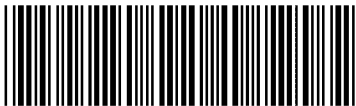
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☐ Claims renumbered in the same order as presented by applicant					☐ CPA		☒ T.D.		☐ R.1.47	
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19	19	✓	=							
20	20	✓	=							

Issue Classification 	Application/Control No. 17/503,675	Applicant(s)/Patent Under Reexamination Mason, Nicholas Kingsley
	Examiner HASSAN MRABI	Art Unit 2144

CPC						
Symbol					Type	Version
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G06F	/	40	/	166	I	2020-01-01
G06F	/	16	/	24564	I	2019-01-01
G06F	/	40	/	134	I	2020-01-01

CPC Combination Sets					
Symbol				Type	Set
	/		/		

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/HASSAN MRABI/ Examiner, Art Unit 2144	26 March 2022	O.G. Print Claim(s)	O.G. Print Figure
(Primary Examiner)	(Date)	1	1

Issue Classification 	Application/Control No. 17/503,675	Applicant(s)/Patent Under Reexamination Mason, Nicholas Kingsley
	Examiner HASSAN MRABI	Art Unit 2144

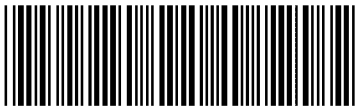
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CLAIMED			
G06F	/	17	/ 00

NON-CLAIMED			
/	/		

US ORIGINAL CLASSIFICATION	
CLASS	SUBCLASS

CROSS REFERENCES(S)						
CLASS	SUBCLASS (ONE SUBCLASS PER BLOCK)					

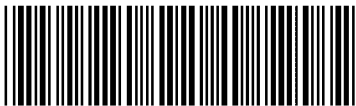
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(Primary Examiner)	(Date)	1	1

Issue Classification 	Application/Control No. 17/503,675	Applicant(s)/Patent Under Reexamination Mason, Nicholas Kingsley
	Examiner HASSAN MRABI	Art Unit 2144

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

CLAIMS															
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NONE (Assistant Examiner) _____ (Date) _____		Total Claims Allowed: 20	
/HASSAN MRABI/ Examiner, Art Unit 2144 (Primary Examiner) _____ (Date) 26 March 2022		O.G. Print Claim(s) 1	O.G. Print Figure 1

<i>Search Notes</i> 	Application/Control No. 17/503,675	Applicant(s)/Patent Under Reexamination Mason, Nicholas Kingsley
	Examiner HASSAN MRABI	Art Unit 2144

CPC - Searched*		
Symbol	Date	Examiner
G06F40/103 or G06F16/24564 or G06F40/134 or G06F40/166	12/17/2021	/HM/
G06F40/103 or G06F16/24564 or G06F40/134 or G06F40/166	03/26/2022	/HM/

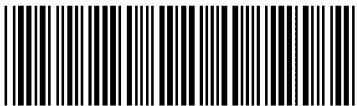
CPC Combination Sets - Searched*		
Symbol	Date	Examiner

US Classification - Searched*			
Class	Subclass	Date	Examiner

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

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Double Patenting	12/17/2021	/HM/
IP.COM Search	12/17/2021	/HM/
Dialog Search	12/17/2021	/HM/
EAST Search (See attached) - US PGPUB, USPAT, USOCR, FPRS, EPO, JPO, DERWENT, IBM_TDB	03/26/2022	/HM/
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Dialog Search	03/26/2022	/HM/

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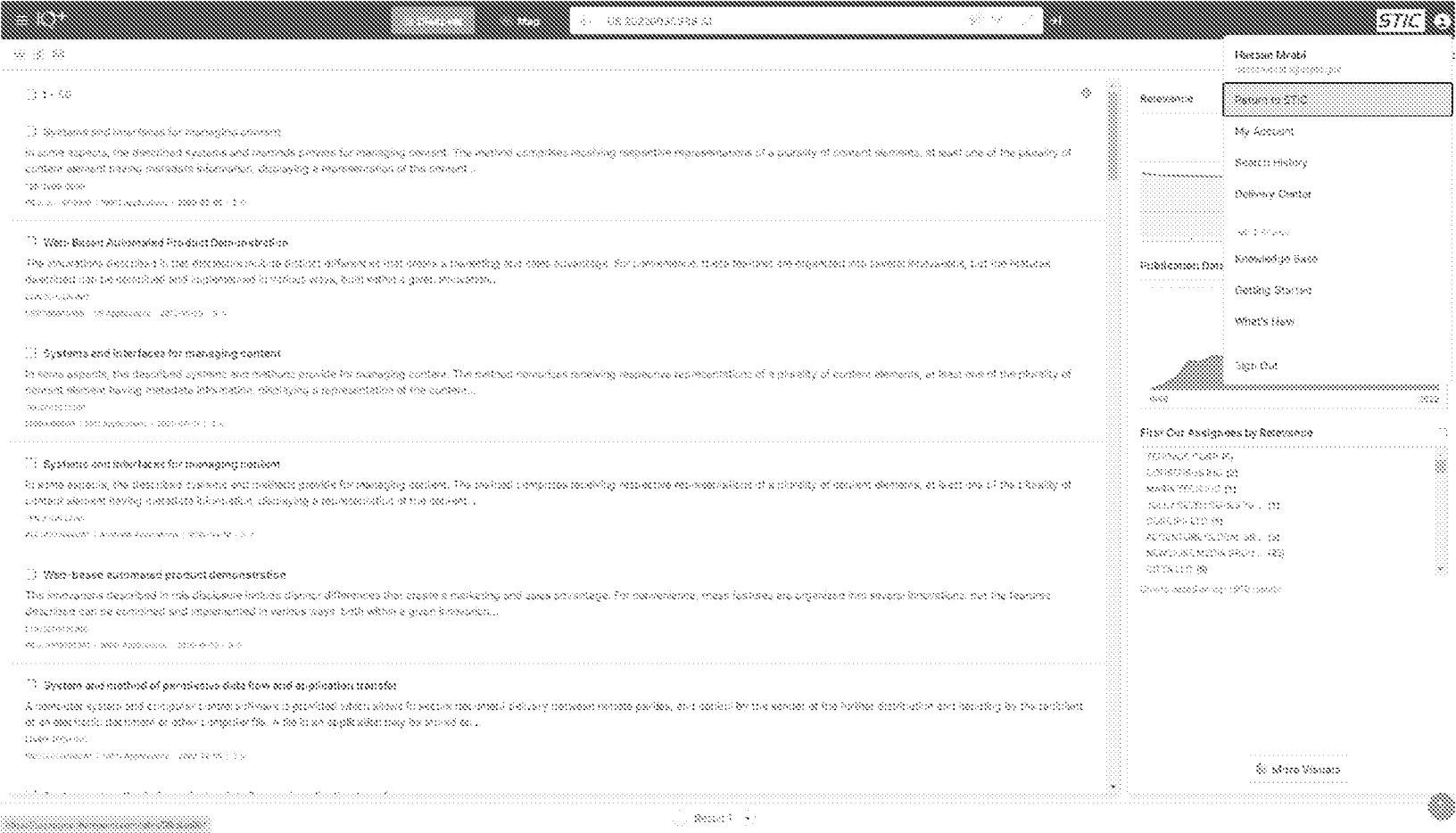
<i>Search Notes</i> 	Application/Control No. 17/503,675	Applicant(s)/Patent Under Reexamination Mason, Nicholas Kingsley
	Examiner HASSAN MRABI	Art Unit 2144

Interference Search			
US Class/CPC Symbol	US Subclass/CPC Group	Date	Examiner
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G06F17	00 with limited text search	03/26/2022	/HM/

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Search within: Items per page: 20

- Enter a specific doc range



EAST Search History

EAST Search History (Prior Art)

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EAST Search History (Interference)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
S133	0	S132 and ((generat\$3 creat\$3 produc\$3 build\$3 compos\$3 provid\$3 stimulat\$3 catalyz\$3 construct\$3 facilitat\$3 compil\$3 result\$3 deliver\$3) near9 ((derivative derived deriv\$3) near4 (document content item element object data information) near9 (document report brochure handbook proposal whitepaper newsletter magazine guide guideline sale playbook file paper manifesto book draft page webpage study literature content data)))	US-PGPUB; USPAT	OR	ON	2022/03/25 20:49
S132	7	S120 and S130	US-PGPUB; USPAT	OR	ON	2022/03/25 20:49
S131	0	S117 and S130	US-PGPUB; USPAT	OR	ON	2022/03/25 20:49
S130	4,218	(G06F17/00).CPC.	US-PGPUB; USPAT	OR	ON	2022/03/25 20:49
S129	0	S128 and ((automatic\$4 automated machine\$1driven computerized automate automation robotic programmable adaptive asynchronous) near9 (assembl\$3 gather\$3 ((put\$4 set setting get\$4) near2 (together up)) reassembl\$3 build\$3 construct\$3 compil\$3 arrang\$5 attach\$3 collect\$3 unit\$3 join\$3 combin\$3 regroup\$3 consolidat\$3 congregat\$3) near9 ((interactive interactional interact\$3 participative participatory collaborative iterative personalized customized integrative) near9 (document papers documentation letter memorandum declaration report dossier file booklet handbook brochure manuscript manifesto statement copy printout paperwork guide guideline publication presentation literature essay study documentary version project writing))))	US-PGPUB; USPAT	OR	ON	2022/03/25 20:47
S128	3	S127 and ((generat\$3 creat\$3 produc\$3 build\$3 compos\$3 provid\$3 stimulat\$3 catalyz\$3 construct\$3 facilitat\$3 compil\$3 result\$3 deliver\$3) near9 ((derivative derived deriv\$3) near4 (document content item element object data information) near9 (document report brochure handbook	US-PGPUB; USPAT	OR	ON	2022/03/25 20:46

		proposal whitepaper newsletter magazine guide guideline sale playbook file paper manifesto book draft page webpage study literature content data)))				
S127	3	S126 and ((reader near7 (interact\$3 engagement engag\$3 interest reading)))	US- PGPUB; USPAT	OR	ON	2022/03/25 20:45
S126	3	S125 and ((track\$3 monitor\$3 record\$3 detect\$3 evaluat\$3 keep\$3) near9 (reader near7 (interact\$3 engagement engag\$3 interest reading behaviour behavior)))	US- PGPUB; USPAT	OR	ON	2022/03/25 20:45
S125	35	S124 and ((generat\$3 creat\$3 produc\$3 build\$3 compos\$3 provid\$3 stimulat\$3 catalyz\$3 construct\$3 facilitat\$3 compil\$3 result\$3 deliver\$3) near9 ((derivative derived deriv\$3) near4 (document content item element object data information) near9 (document report brochure handbook proposal whitepaper newsletter magazine guide guideline sale playbook file paper manifesto book draft page webpage study literature content data)))	US- PGPUB; USPAT	OR	ON	2022/03/25 20:43
S124	447	S123 and S116	US- PGPUB; USPAT	OR	ON	2022/03/25 20:43
S123	60,798	((personaliz\$3 individualiz\$3 customiz\$3 personalis\$3 optimiz\$3) near9 (content information data book article webpage website page report brochure digital magazine product guide sale playbook sale proposal whitepaper newsletter company handbook annual document)).clm.	US- PGPUB; USPAT	OR	ON	2022/03/25 20:42
S122	0	S121 and ((personaliz\$3 individualiz\$3 customiz\$3 personalis\$3 optimiz\$3) near9 (content information data book article webpage website page report brochure digital magazine product guide sale playbook sale proposal whitepaper newsletter company handbook annual document))	US- PGPUB; USPAT	OR	ON	2022/03/25 20:42
S121	2	S120 and S116	US- PGPUB; USPAT	OR	ON	2022/03/25 20:41
S120	2,690	((track\$3 monitor\$3 record\$3 detect\$3 evaluat\$3 keep\$3) near9 (reader near7 (interact\$3 engagement engag\$3 interest reading behaviour behavior))).clm.	US- PGPUB; USPAT	OR	ON	2022/03/25 20:41

S119	0	S118 and ((track\$3 monitor\$3 record\$3 detect\$3 evaluat\$3 keep\$3) near9 (reader near7 (interact\$3 engagement engag\$3 interest reading behaviour behavior)))	US-PGPUB; USPAT	OR	ON	2022/03/25 20:40
S118	25	S117 and S116	US-PGPUB; USPAT	OR	ON	2022/03/25 20:38
S117	3,805	((module modular) near9 (API "application programming interface")).clm.	US-PGPUB; USPAT	OR	ON	2022/03/25 20:38
S116	9,176	(715/234).CCLS.	US-PGPUB; USPAT	OR	ON	2022/03/25 20:38
S113	3,805	((module modular) near9 (API "application programming interface")).clm.	US-PGPUB; USPAT	OR	ON	2022/03/25 16:00

3/26/2022 5:29:57 PM

C:\Users\hmrabi\Documents\EAST\Workspaces\17503675.wsp

PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), by mail or fax, or via EFS-Web.

By mail, send to: Mail Stop ISSUE FEE
Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450

By fax, send to: (571)-273-2885

INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee notifications.

CURRENT CORRESPONDENCE ADDRESS (Note: Use Block 1 for any change of address)

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.

21971 7590 04/07/2022
WILSON SONSINI GOODRICH & ROSATI
650 PAGE MILL ROAD
PALO ALTO, CA 94304-1050

Certificate of Mailing or Transmission

I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUE FEE address above, or being transmitted to the USPTO via EFS-Web or by facsimile to (571) 273-2885, on the date below.

Pamela J. Pari	(Typed or printed name)
/Pamela J. Pari/	(Signature)
May 10, 2022	(Date)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
17/503,675	10/18/2021	Nicholas Kingsley Mason	56000-701.301	7023

TITLE OF INVENTION: METHODS AND SYSTEMS FOR INTERACTIVE CONTENT CREATION

APPLN. TYPE	ENTITY STATUS	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	UNDISCOUNTED	\$1200	\$0.00	\$0.00	\$1200	07/07/2022

EXAMINER	ART UNIT	CLASS-SUBCLASS
MRABI, HASSAN	2144	715-234000

1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).

☐ Change of correspondence address (or Change of Correspondence Address form PTO/AIA/122 or PTO/SB/122) attached.

☐ "Fee Address" indication (or "Fee Address" Indication form PTO/AIA/47 or PTO/SB/47; Rev 03-02 or more recent) attached. **Use of a Customer Number is required.**

2. For printing on the patent front page, list

(1) The names of up to 3 registered patent attorneys or agents OR, alternatively,

(2) The name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed.

1 Wilson Sonsini Goodrich & Rosati

2 _____

3 _____

3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)

PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. If an assignee is identified below, the document must have been previously recorded, or filed for recordation, as set forth in 37 CFR 3.11 and 37 CFR 3.81(a). Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE

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

TURTL SURF & IMMERSE LIMITED

LONDON, ENGLAND

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

4a. Fees submitted: ☒ Issue Fee ☐ Publication Fee (if required) ☐ Advance Order - # of Copies _____

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

☒ Electronic Payment via EFS-Web ☐ Enclosed check ☐ Non-electronic payment by credit card (Attach form PTO-2038)

☒ The Director is hereby authorized to charge the required fee(s), any deficiency, or credit any overpayment to Deposit Account No. **23-2415**

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 /Shuaimin Liu/

Date May 10, 2022

Typed or printed name Shuaimin Liu

Registration No. L1361

Electronic Patent Application Fee Transmittal

Application Number:	17503675			
Filing Date:	18-Oct-2021			
Title of Invention:	METHODS AND SYSTEMS FOR INTERACTIVE CONTENT CREATION			
First Named Inventor/Applicant Name:	Nicholas Kingsley Mason			
Filer:	Shuaimin Liu/Pamela Pari			
Attorney Docket Number:	56000-701.301			
Filed as Large 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:				
UTILITY APPL ISSUE FEE	1501	1	1200	1200

Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
Extension-of-Time:				
Miscellaneous:				
Total in USD (\$)				1200

Electronic Acknowledgement Receipt

EFS ID:	45672775
Application Number:	17503675
International Application Number:	
Confirmation Number:	7023
Title of Invention:	METHODS AND SYSTEMS FOR INTERACTIVE CONTENT CREATION
First Named Inventor/Applicant Name:	Nicholas Kingsley Mason
Customer Number:	21971
Filer:	Shuaimin Liu/Pamela Pari
Filer Authorized By:	Shuaimin Liu
Attorney Docket Number:	56000-701.301
Receipt Date:	10-MAY-2022
Filing Date:	18-OCT-2021
Time Stamp:	10:20:45
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	DA
Payment was successfully received in RAM	\$ 1200
RAM confirmation Number	E202250A20590877
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	Issue Fee Payment (PTO-85B)	56000_701_301_Issue_Fee_Transmittal.pdf	115395	no	1
			1e1cf723080dbba9e7d6514f4b1f4dae9788fb10		
Warnings:					
Information:					
2	Fee Worksheet (SB06)	fee-info.pdf	37717	no	2
			ac18975de7c9e3c1572551eff731d98fb1939acc		
Warnings:					
Information:					
Total Files Size (in bytes):			153112		
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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APPLICATION NO.	ISSUE DATE	PATENT NO.	ATTORNEY DOCKET NO.	CONFIRMATION NO.
17/503,675	06/14/2022	11361144	56000-701.301	7023

21971 7590 05/25/2022

WILSON SONSINI GOODRICH & ROSATI
650 PAGE MILL ROAD
PALO ALTO, CA 94304-1050

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 Patents Stakeholder Experience (OPSE), Stakeholder Support Division (SSD) at (571)-272-4200.

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

Nicholas Kingsley Mason, St Albans, UNITED KINGDOM;

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

Turtl Surf & Immerse Limited, London, UNITED KINGDOM;

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