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[Continued on next page]

(54) Title: METHOD AND APPARATUS FOR BUILDING A USER PROFILE FOR PERSONALIZATION USING INTERACTION DATA

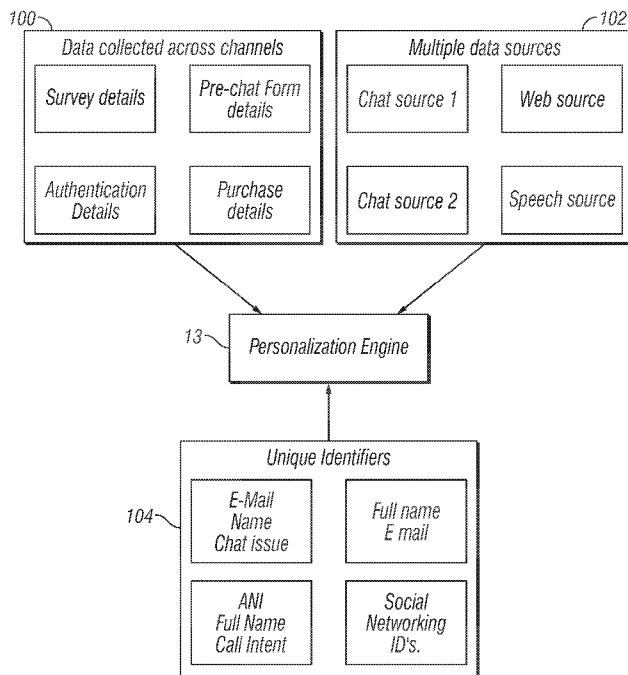


FIG. 10

(57) Abstract: A user profile is creates, and personalization is provided, by compiling interaction data. The interaction data is compiled to generate a value index or score from a user model. Parameterized data is used to build tools which help decide an engagement strategy and modes of engagement with a user. Several facets relating to the user, such as user behavior, user interests, products bought, intent, chat language, and so on, are compiled to create a user profile based personalization technique. In another embodiment, a unique ID is provided that can be mapped across multiple channels for use by the user to contact various organizations across multiple channels, and thus upgrade the user's experience.

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INTERNATIONAL SEARCH REPORT

International application No.

PCT/US14/12760

<p>A. CLASSIFICATION OF SUBJECT MATTER IPC(8) - G06F 15/16, 15/18, 17/30 (2014.01) USPC - 705/7.29; 706/12; 709/204 According to International Patent Classification (IPC) or to both national classification and IPC</p>																													
<p>B. FIELDS SEARCHED</p> <p>Minimum documentation searched (classification system followed by classification symbols) USPC Classifications: 705/7.29, 7.31, 7.32, 7.33; 706/12; 709/204 IPC(8) Classifications: G06F 15/16, 15/18, 17/30 (2014.01)</p> <p>Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched</p> <p>Electronic data base consulted during the international search (name of data base and, where practicable, search terms used) MicroPatent (US-G, US-A, EP-A, EP-B, WO, JP-bib, DE-C,B, DE-A, DE-T, DE-U, GB-A, FR-A); ProQuest; IP.com; Google; personalize, tailor, custom, content, media, info, program, user, individual, consumer, data, transact, interact, aggregate</p>																													
<p>C. DOCUMENTS CONSIDERED TO BE RELEVANT</p> <table border="1"> <thead> <tr> <th>Category*</th> <th>Citation of document, with indication, where appropriate, of the relevant passages</th> <th>Relevant to claim No.</th> </tr> </thead> <tbody> <tr> <td>X --- Y</td> <td>US 2011/0282758 A1 (JACOBI, J et al.) November 17, 2011; abstract; figures 1, 2, 5, 6; paragraphs [0011], [0033], [0043], [0053]-[0058], [0062]-[0065], [0067], [0068], [0070], [0074]</td> <td>1, 2, 4-8, 10, 11, 14 ----- 3, 9, 12, 13, 15, 16</td> </tr> <tr> <td>X --- Y</td> <td>US 8326777 B2 (ZHANG, Q et al.) December 4, 2012; abstract; figures 3, 4; column 1, lines 24-35; column 2, lines 16-38; column 6, lines 3-15; column 7, lines 31-42; column 15, lines 20-46</td> <td>17 ----- 15, 16</td> </tr> <tr> <td>X --- Y</td> <td>US 7886343 B2 (SULLIVAN, T et al.) February 8, 2011; abstract; figure 4; column 9, lines 15-36;</td> <td>18, 19 ----- 20-32</td> </tr> <tr> <td>Y</td> <td>US 2012/0166250 A1 (FERRANTE, D et al.) June 28, 2012; paragraphs [0013], [0014]</td> <td>3</td> </tr> <tr> <td>Y</td> <td>US 8121890 B2 (PINHANEZ, C) February 21, 2012; figure 2; column 2, lines 50-64</td> <td>9</td> </tr> <tr> <td>Y</td> <td>US 7464050 B1 (DEATON, D et al.) December 9, 2008; column 10, lines 54-67</td> <td>12</td> </tr> <tr> <td>Y</td> <td>US 2012/0233258 A1 (VIJAYARAGHAVAN, R et al.) September 13, 2012; figure 4; paragraphs [0060]-[0064]</td> <td>13</td> </tr> <tr> <td>Y</td> <td>US 8171044 B2 (DAIGLE, B) May 1, 2012; figures 3-5, 14-16; column 5, lines 54-67; column 6, lines 63-67; column 7, lines 1-2, 29-34; column 8, lines 6-24; column 10, lines 11-24; column 14, lines 5-43</td> <td>20-27</td> </tr> </tbody> </table>			Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.	X --- Y	US 2011/0282758 A1 (JACOBI, J et al.) November 17, 2011; abstract; figures 1, 2, 5, 6; paragraphs [0011], [0033], [0043], [0053]-[0058], [0062]-[0065], [0067], [0068], [0070], [0074]	1, 2, 4-8, 10, 11, 14 ----- 3, 9, 12, 13, 15, 16	X --- Y	US 8326777 B2 (ZHANG, Q et al.) December 4, 2012; abstract; figures 3, 4; column 1, lines 24-35; column 2, lines 16-38; column 6, lines 3-15; column 7, lines 31-42; column 15, lines 20-46	17 ----- 15, 16	X --- Y	US 7886343 B2 (SULLIVAN, T et al.) February 8, 2011; abstract; figure 4; column 9, lines 15-36;	18, 19 ----- 20-32	Y	US 2012/0166250 A1 (FERRANTE, D et al.) June 28, 2012; paragraphs [0013], [0014]	3	Y	US 8121890 B2 (PINHANEZ, C) February 21, 2012; figure 2; column 2, lines 50-64	9	Y	US 7464050 B1 (DEATON, D et al.) December 9, 2008; column 10, lines 54-67	12	Y	US 2012/0233258 A1 (VIJAYARAGHAVAN, R et al.) September 13, 2012; figure 4; paragraphs [0060]-[0064]	13	Y	US 8171044 B2 (DAIGLE, B) May 1, 2012; figures 3-5, 14-16; column 5, lines 54-67; column 6, lines 63-67; column 7, lines 1-2, 29-34; column 8, lines 6-24; column 10, lines 11-24; column 14, lines 5-43	20-27
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<p><input checked="" type="checkbox"/> Further documents are listed in the continuation of Box C. <input type="checkbox"/></p>																													
<p>* Special categories of cited documents:</p> <table border="0"> <tr> <td>“A” document defining the general state of the art which is not considered to be of particular relevance</td> <td>“T” later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention</td> </tr> <tr> <td>“E” earlier application or patent but published on or after the international filing date</td> <td>“X” document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone</td> </tr> <tr> <td>“L” document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)</td> <td>“Y” document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art</td> </tr> <tr> <td>“O” document referring to an oral disclosure, use, exhibition or other means</td> <td>“&” document member of the same patent family</td> </tr> <tr> <td>“P” document published prior to the international filing date but later than the priority date claimed</td> <td></td> </tr> </table>			“A” document defining the general state of the art which is not considered to be of particular relevance	“T” later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention	“E” earlier application or patent but published on or after the international filing date	“X” document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone	“L” document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)	“Y” document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art	“O” document referring to an oral disclosure, use, exhibition or other means	“&” document member of the same patent family	“P” document published prior to the international filing date but later than the priority date claimed																		
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<p>Date of the actual completion of the international search 25 June 2014 (25.06.2014)</p>		<p>Date of mailing of the international search report 18 JUL 2014</p>																											
<p>Name and mailing address of the ISA/US Mail Stop PCT, Attn: ISA/US, Commissioner for Patents P.O. Box 1450, Alexandria, Virginia 22313-1450 Facsimile No. 571-273-3201</p>		<p>Authorized officer: Shane Thomas PCT Helpdesk: 571-272-4300 PCT OSP: 571-272-7774</p>																											

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US14/12760

C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 8229401 B2 (ELSEY, N et al.) July 24, 2012; figures 2A, 2B, 4; column 2, lines 46-64; column 11, lines 31-49	28, 29
Y	US 2012/0311684 A1 (PAULSEN, K et al.) December 6, 2012; figures 2, 8, 9; paragraphs [0046], [0048], [0181], [0183], [1094], [0195], [0197]	30-32

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Box No. II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:

2. Claims Nos.:
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:

3. Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box No. III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

This application contains the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1. In order for all inventions to be examined, the appropriate additional examination fee must be paid.

Group I: Claim 1 is directed toward a computer implemented method for user analysis.

Group II: Claims 2-16 are directed toward a computer implemented method for building a user profile and for user personalization.

Group III: Claim 17 is directed toward a computer implemented method for user analysis.

Group IV: Claims 18-32 are directed toward a computer implemented method for capturing user data across interactions using unique user identification.

-See Supplemental Page-

1. As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.

2. As all searchable claims could be searched without effort justifying additional fees, this Authority did not invite payment of additional fees.

3. As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:

4. No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

- The additional search fees were accompanied by the applicant's protest and, where applicable, the payment of a protest fee.
- The additional search fees were accompanied by the applicant's protest but the applicable protest fee was not paid within the time limit specified in the invitation.
- No protest accompanied the payment of additional search fees.

-***-Continued from Box III: Observations where unity of invention is lacking-***-

The inventions listed as Groups I-IV do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons:

The special technical features of Group I include said processor targeting relevant content using the personalization engine; and said processor delivering personalized content to the user based on the targeting, which is not present in Groups II-IV.

The special technical features of Group II include the user's previous interaction experience and personal information which is used to refine results in response to queries submitted by the user, which are not present in Groups I, III, and IV.

The special technical features of Group III include obtaining user data based on the unique identifier from two of the plurality of channels; storing the user data based on the identifier; and analyzing the stored user data to determine user insights, which are not present in Groups I, II, and IV.

The special technical features of Group IV include a user management module; ; said user management module generates a unique ID for said user when said user management module receives said personal identifier from the user; and wherein said unique ID is common for said user across a plurality of organizations with which said user interacts, which are not present in Groups I-III.

The common technical features shared by Groups I-IV are a computer comprising a processor; obtaining data sets related to a user including user data, interaction data, transaction data, and aggregate data; obtaining a unique identifier for the user; wherein said data is obtained based on the unique identifier from a plurality of channels; parameterizing the data to generate behavioral scores; wherein personalization is performed; and wherein the user may make a request of the system.

However, these common features are previously disclosed by US 2011/0173077 A1 to Patel, A et al. (hereinafter 'Patel'). Patel discloses a computer comprising a processor (system is implemented on servers (computers comprising processors), paragraph [0059]); obtaining data sets related to a user including user data, interaction data, transaction data, and aggregate data (system performs data collection, and maintains a user profile and user data including demographics, interactions, and transactions, and aggregates the data across channels, paragraphs [0072], [0077]); obtaining a unique identifier for the user (user accepts an identifier, and is then associated with a unique ID, even if anonymous, paragraph [0075]); wherein said data is obtained based on the unique identifier from a plurality of channels (contact information is aggregated across multiple channels of interaction and associated with the user profile, paragraphs [0071]-[0072] and [0077]); parameterizing the data to generate behavioral scores (each customer has propensity ratings (scores) for advertising campaigns, derived from customer analysis of the data warehouse 162 containing user data, paragraphs [0091] and [0124]); wherein personalization is performed (system is personalized to the user, paragraph [0075]); and wherein the user may make a request of the system (customer may make a service request, paragraph [0072]).

Since the common technical features are previously disclosed by the Patel reference, these common features are not special and so Groups I-IV lack unity.