Title: SYSTEMS AND METHODS FOR ANALYZING AND DISPLAYING DATA

Abstract: The present disclosure generally relates to systems and methods for analyzing and displaying data. In accordance with one implementation, a computer-implemented method is provided that comprises displaying one or more personas. The method also includes displaying information associated with individuals within the persona and assigning and displaying a score to the persona which represents the persona's propensity to become a customer of a business. The displayed interface also may display characteristics associated with personas, relationships between personas, and geographical regions associated with personas. It may also display a communication display and provide a means for communicating with individuals and personas by way of a communication preference.
— before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments (Rule 48.2(h))

(88) Date of publication of the international search report:

12 September 2014
A. CLASSIFICATION OF SUBJECT MATTER

IPC(8) - G06Q 30/02 (2014.01)
USPC - 705/319

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC(8) - G06Q 30/00; 30/02; 50/00 (2014.01)
USPC - 705/1.1; 705/14.66; 705/319

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

CPC - G06Q 30/00; 30/02; 50/00 (2014.02)

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

Orbit, Google Patents, Google Scholar, Google

C. DOCUMENTS CONSIDERED TO BE RELEVANT

<table>
<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</td>
<td>US 201/0191417 A1 (RATHOD) 04 AUGUST 2011 (04.08.2011) entire document</td>
<td>1, 2, 38, 39</td>
</tr>
<tr>
<td>A</td>
<td>US 2009/014421 I A1 (OSULLIVAN et al) 04 June 2009 (04.06.2009) entire document</td>
<td>1, 2, 38, 39</td>
</tr>
</tbody>
</table>

Further documents are listed in the continuation of Box C.

* Special categories of cited documents:
  "A" document defining the general state of the art which is not considered to be of particular relevance
  "E" earlier application or patent but published on or after the international filing date
  "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
  "O" document referring to an oral disclosure, use, exhibition or other means
  "P" document published prior to the international filing date but later than the priority date claimed
  "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
  "Y" 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
  "X" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
  "&" document member of the same patent family

Date of the actual completion of the international search: 10 JUNE 2014

Date of mailing of the international search report: 03 JUL 2014

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PCT OBP: 571-272-7774

Form PCT/ISA/210 (second sheet) (July 2009)
### 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:

See last 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.:
   1, 2, 38, 39

**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.
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 fees must be paid.

Group I: claims 1, 2, 38, 39, drawn to viewing existing and potential customers of a business who have similar characteristics.

Group II: claims 3-10, 40-47, drawn to displaying a score for at least one of the personas for individuals.

Group III: claims 11-14, 48-51, drawn to viewing a group of related characteristics.

Group IV: claims 15-18, 52-55, drawn to displaying geographic regions of individuals related to specific groups of characteristics.

Group V: claims 19-22, 56-59, drawn to communicating with individuals related to specific groups of characteristics.

Group VI: claims 23, 24, 31-33, 60, 61, drawn to viewing sub-groups of relationships between individuals and characteristics within a larger group.

Group VII: claims 25, 29, 30, 62, 66-70, drawn to viewing groups of relationships between individuals and characteristics with three groups.

Group VIII: claims 26-28, 63-65, automatically configuring administrative credentials on a remote system.

Group IX: claims 34-37, 71-74, drawn to granting a user access to a system.

Group X: claims 75-81, drawn to manipulating and displaying data on remote devices.

The inventions listed as Groups I-X 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 feature of the Group I invention: determining a number of the individuals who are related to a persona and are also existing customers of a business; and displaying the number of the individuals who are related to the persona and are also existing customers of the business, as claimed therein is not present in the invention of Groups II-X. The special technical feature of the Group II invention: displaying the individuals and the characteristics related to at least one of the personas; displaying a score for at least one of the personas; receiving an updated score for at least one of the personas; and changing the displayed individuals and characteristics, based on at least one of the updated scores, as claimed therein is not present in the invention of Groups I, III-X. The special technical feature of the Group III invention: computer-implemented method for viewing a group of related characteristics, comprising: receiving a selection of at least one of the personas; displaying the individuals related to the selected persona; determining categories of the characteristics; grouping the characteristics based on the categories; and displaying the grouped characteristics comprising the selected persona, as claimed therein is not present in the invention of Groups I, II, IV-X. The special technical feature of the Group IV invention: computer-implemented method of displaying geographic regions of individuals related to specific groups of characteristics, comprising: displaying a map; determining geographic regions related to the identified individuals; and displaying at least one of the determined geographic regions on the map, as claimed therein is not present in the invention of Groups I, II, III or V-X. The special technical feature of the Group V invention: computer-implemented method of communicating with individuals related to specific groups of characteristics, comprising: determining a communication preference for at least one of the individuals related to the group; displaying at least one of the communication preferences; receiving a message to be sent to at least one of the individuals; and sending the message to at least one of the individuals, using the communication preference for that individual, as claimed therein is not present in the invention of Groups I-VI, V-X. The special technical feature of the Group VI invention: computer-implemented method for viewing sub-groups of relationships between individuals and characteristics within a larger group, comprising: receiving a request to view a group of relationships, wherein at least one of the relationships comprises a strength; receiving a threshold; creating one or more sub-groups of the relationships, based on the threshold and the strength; and outputting at least one of the sub-groups, as claimed therein is not present in the invention of Groups I-V, VII-X. The special technical feature of the Group VII invention: computer-implemented method for viewing groups of relationships between individuals and characteristics, comprising: receiving a request to view a first group of relationships between individuals and characteristics; receiving a request to view asecond group of relationships between individuals and characteristics, in combination with the first group; creating a third group of the relationships, based on the first group and the second group; and outputting the third group, as claimed therein is not present in the invention of Groups I-VI or VIII-X. The special technical feature of the Group VIII invention: computer-implemented method for automatically configuring administrative credentials on a remote system, comprising: receiving, at a computer, a user request for administrative credentials on a remote system; receiving, at a computer, the user's account information; using the computer to access the remote system and request administrative privileges for the user; determining what information is necessary to complete the user's request; and sending the necessary information to the remote system, as claimed therein is not present in the invention of Groups I-VIII, IX-X. The special technical feature of the Group IX invention: computer-implemented method for granting a user access to a system, comprising: displaying a number of elements, comprising icons, colors, shapes, or alphanumeric symbols; receiving a selection of one of the elements; indicating that the element has been selected; displaying a history of the selected elements, comprising the indications associated with each selected element; and permitting access to the system, once the elements have been selected in a correct sequence as claimed therein is not present in the invention of Groups I-VIII or X. The special technical feature of the Group X invention: manipulating and displaying data on remote devices, comprising: an analysis server, for gathering data and determining a number of relationships; one or more data sources, from which the analysis server receives data; and a user terminal, for displaying data and relationships to a user, as claimed therein is not present in the invention of Groups I-X.

Groups I, II, III, IV, V, VI, VII, VIII, IX, and X lack unity of invention because even though the inventions of these groups require the technical feature of a computer-implemented method for determining relationships between individuals based on characteristics, this technical feature is not a special technical feature as it does not make a contribution over the prior art. Specifically, US 2009/014421 I A 1 (O'SULLIVAN et al) (04 June 2009) teaches a computer implemented method for determining relationships between individuals based on characteristics (dynamically represent a group's (or individual's) online and/or offline activities and behaviors. The group selects the adaptive media object to represent their persona digitally. The group may indicate which activities, actions, and/or behaviors are to be used to adapt the persona, and may further specify at least one mapping of a selected activity, action, and/or behavior to a change in the configuration of the adaptive media object, abstract).

Since none of the special technical features of the Group I, II, III, IV, V, VI, VII, VIII, IX or X inventions are found in more than one of the inventions, unity of invention is lacking.