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- (71) Applicant (for all designated States except US): **THOMSON LICENSING** [FR/FR]; 1-5 rue Jeanne d'Arc, F-92130 Issy les Moulineaux (FR).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): **WARDENAAR, Matthew Jacob** [US/US]; 4637 Willis Ave., #202, Sherman Oaks, California 91403 (US). **BADAWIYEH, Basil** [US/US]; 28623 Gabriel Place, Santa Clarita, California 91390 (US). **YEH, Roger** [US/US]; 1315 Saint Albans Road, San Marino, California 91108 (US).
- (74) Agents: **SHEDD, Robert, D.** et al.; Thomson Licensing LLC, 2 Independence Way, Suite #200, Princeton, New Jersey 08540 (US).

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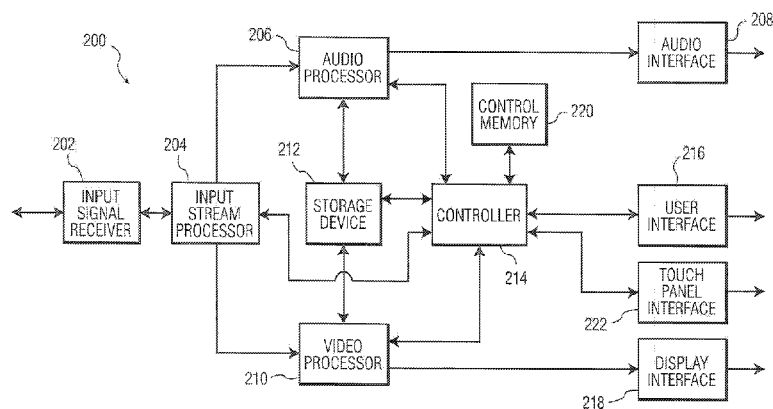


FIG. 2

(57) Abstract: The present disclosure is directed towards managing communications from different sources is described where such a management operation can be controlled using a user interface. Sources are selected using the user interface such that communications concerning a specified subject are received from such sources. The user interface can also be used to specific the amount of context/communications that come from different sources concerning the specified subject.

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METHOD AND USER INTERFACE CONTROLLING COMMUNICATIONS AND CONTENT FROM SOURCES

CROSS-REFERENCE TO RELATED APPLICATIONS

This application claims priority under 35 U.S.C. 119(e) to U.S. Provisional
5 Patent Application Serial No. 61/522,170, filed August 10, 2011, the teachings of
which are incorporated herein.

Field of the Invention

The present disclosure relates generally to communication networks, and
10 more specifically to a user interface that is used for managing the receipt of
communications from different sources where such communications concern a
specific subject.

Background of the Invention

When a user receives communications and content from various sources, the
15 user may not always be able to manage how much content is received from a
particular source. Moreover, a user may have a preference for a subject or context
of content from a particular source, but there is not a simple means as to how to
make such an association without either permitting every communication come from
the particular source or filtering out every communication from the specific source.

20

Summary of the Invention

A method and apparatus for managing communications from different sources is
described where such a management operation can be controlled using a user
interface. Sources are selected using the user interface such that communications
25 concerning a specified subject are received from such sources. The user interface
can also be used to specific the amount of context/communications that come from
different sources concerning the specified subject.

Description of the Drawings

These, and other aspects, features and advantages of the present disclosure will be described or become apparent from the following detailed description of the preferred embodiments, which is to be read in connection with the accompanying
5 drawings.

In the drawings, wherein like reference numerals denote similar elements throughout the views:

FIG. 1 is a block diagram of an exemplary system transmitting communications between users in accordance with an embodiment of the present
10 disclosure;

FIG. 2 is a block diagram of an exemplary consumption device in accordance with an embodiment of the present disclosure;

FIG. 3 is a perspective view of an exemplary media device in accordance with an embodiment of the present disclosure;

15 FIG. 4 illustrates an exemplary embodiment of the use of gestures for a sensing controller or touch screen in accordance with the present disclosure;

FIG. 5 illustrates an exemplary embodiment of a user interface that is used for adjusting the contexts/subjects used for a user profile in accordance with the present disclosure;

20 FIG. 6 illustrates an exemplary embodiment of a user interface that is used for adjusting the contexts/subjects used for a user profile in accordance with the present disclosure;

FIG. 7 illustrates an exemplary embodiment of a user interface that is used for represent the context/subjects used for a user profile in accordance with the present
25 disclosure;

FIG. 8 illustrates an exemplary embodiment of a user interface that is used for associating context/subjects with various sources of content and communications in accordance with the present disclosure;

FIG. 9 illustrates an exemplary embodiment of a user interface that is used for associating contexts/subjects with various sources of content and communications in accordance with the present disclosure;

FIG. 10 illustrates an exemplary embodiment of a user interface that is used
5 for associating contexts/subjects with various sources of content and communications in accordance with the present disclosure;

FIG. 11 illustrates an exemplary embodiment of a user interface that is used for adjusting the various sources for a specific context/subject in accordance with the present disclosure;

FIG. 12 illustrates an exemplary embodiment of a user interface that is used
10 for adjusting the various sources for a specific context/subject in accordance with the present disclosure; and

FIG. 13 illustrates a flow chart of a method that provides a user profile that is used for managing the associations of different contexts/subjects of electronic
15 communications and content from different sources in accordance with the present disclosure.

Description of the Preferred Embodiments

For purposes of this specification, the term “electronic communication” can be a communication from a first user to a second user which can be transmitted as an
20 electronic mail, text message, short message service, multimedia message service, posting on a social network service such as FACEBOOK, tweet on a service such as TWITTER, photo, blog posting, instant message, video, audio, message posting, voice message, and the like. Content can be audio, video, pictures, text, and a combination of thereof a specific context/subject. Also, the term “context” in this
25 specification covers terms such as subject, category, topic, subject matter, and the like.

Users can be known as being linked or connected when a first user and a second user are “FRIENDS” of each other through a social networking service, where the first and second users are listed on the same list of a third user, a first and

second user are grouped together in the same category either implicitly or explicitly with each other's permission, a first and second user are grouped together in the same category either implicitly or explicitly by a third party, and the like.

FIG. 1 is an exemplary embodiment of a system 100 in accordance with the present disclosure. Consumption device 105 represents a device such as a
5 computer, set top box, tablet, television, phone, personal access device, gateway, and the like that is used to communicate an electronic communication to other devices such as consumption device 110 or consumption device 115.

The electronic communications between users operating consumption
10 devices 105, 110, and 115 can take place through various communication services such as social network service 120. Examples of social networking services include, but are not limited to, FACEBOOK, MYSPACE, LINKEDIN, and the like. Electronic communications between users can also take place via a website 130 and/or a communication network 140 such as, and not limited to, a telephone connection,
15 satellite, connection, cellular network, WI-FI Digital Subscriber Line (DSL), Internet communication, and the like. A media service 150, but not limited to, such as NETFLIX, M-GO, AMAZON CLOUD SERVICE, ITUNES, PANDORA, and the like can also be used to communicate electronic communications between users who use devices such as consumption devices 105, 110, and 115.

Context server 160 can be implemented as a device that determines a context
20 from an electronic communication that is transmitted from a first user to a second user when using devices such as consumption devices 105, 110, 115, where electronic messages can be forwarded, intercepted, and the like by context server 160. A context of an electronic message can be determining a topic/subject of a particular message although other characteristics of an electronic message can be
25 determined. For example, an electronic message where a user writes something such as "I like Beagles" would be about have a subject that concerns dogs while a message stating "IRON MAN 2 is great" can indicate that the electronic communication is about a movie. Note, the term "context" incorporates terms such
30 as subject, category, topic, subject matter, and the like.

Context server 160 can also utilize hash tags “#” or other kind of indication identifies that an electronic message has certain subject. For example, an electronic communication with an indication “#dogs” identifies that the communication is about “DOGS” while an indication “#baseball” identifies that the communication is about “BASEBALL”. Other indicators can be used in accordance with the described exemplary embodiments.

The determination of a context (subject) of an electronic message can be done taking an electronic message and breaking down the sentences in such a message into a series of keywords which are mapped to topics. That is, each sentence is processed to eliminate stop words where the remaining words are denoted as being keywords. The stop words are commonly used words that do not add to the semantic meaning of a sentence (e.g. of, on, is, an, the, etc.). Stop word lists for English language are well known. A pre-processing step, which can be part of having context server 160 read the stop words from such a list and removes them from the text stream.

The keywords are can be mapped to a series of subject or topics (as query terms) by using a predetermined thesaurus database that associates certain keywords with a particular topic. This database can be set up where a limited selection of topics are defined (such as particular people, subjects, and the like) and various keywords are associated with such topics by using a comparator that attempts to map a keyword against a particular subject. For example, thesaurus database (such as WordNet and the Yahoo OpenDirectory project) can be set up where the keywords such as money, stock, market, are associated with the topic “finance”. Likewise, keywords such as President of the United States, 44th President, President Obama, Barack Obama, are associated with the topic “Barack Obama”. Other subjects can be determined from keywords using similar approaches for topic determination. Another method for determining could use Wikipedia (or similar) knowledge base where content is categorized based on topics. Given a keyword that has an associated topic in Wikipedia, a mapping of keyword to topics can be obtained for the purposes of creating a thesaurus database, as described above.

Once such subjects are determined for each sentence, such sentences can be represented in the form of: <topic_1:weight_1; topic_2; weight_2,...,topic_n,weightN,ne_1,ne_2,...,ne_m>.

Topic_i is the topic that is identified based on the keywords in a sentence, weight_i is a corresponding relevance, Ne_i is the named entity that is recognized in the sentence. Named entities refer to people, places and other proper nouns in the sentence which can be recognized using grammar analysis. These weights can then be used for determining a user profile where topics with a higher weight are more likely positively correlated to a user's preferences than a topic with a lower weight.

It is possible that some entity is mentioned frequently but is indirectly referenced through the use of pronouns such as "he, she, they". If each sentence is analyzed separately such pronouns will not be counted because such words are in the stop word list. The word "you" is a special case since it is used frequently. The use of name resolution will help assign the term "you" to a specific keyword/topic referenced in a previous/current sentence. Otherwise, "you" will be ignored if it can't be referenced to a specific term. To resolve this issue the name resolution can be done before the stop word removal. Other implementations are possible in accordance with the disclosed exemplary embodiments.

In an optional embodiment, the contexts that are derived by context server 160 can be automatically rendered as graphical elements that are represented in association with a user profile. That is, if the developed contexts represent different topics, such topics can be shown as icons, pictures, and the like when a user's profile is displayed using information from profile server 170 where such graphical elements can be associated with a user profile automatically. Such elements can be selected by a user as well, for example, where the user has previously specified a particular interest such as "baseball", a graphical element for a baseball can be shown with the user's profile.

From the development of the subject of an electronic communication from server 160, a profile can be determined for respective users by profile server 170. That is, the context of the electronic communications sent from a first user to a

second user can indicate topics of interest that appeal to the first user. Such contexts can be the topics of the electronic messages transmitted from the first user to the second user. A profile for a user can be generated using implicit techniques based on approaches similar to those described for context server 160, the type of media consumed by a user, and the like. Profiles can also be generated by explicit techniques where a user specifies their interests via a survey or other means of specifying preferences. A combination of implicit and explicit techniques can be used by profile server 170 to develop profiles for each user in accordance with the principles of the exemplary disclosed embodiments. Profile 170 can contain graphical elements representing different contexts such as topics which can be associated with a user's profile when displayed.

In an optional embodiment, context server 160 can be implemented within consumption device 105, 110, 115, within social networking service 120, website 130, communication network 140, media service 150, and the like. In an another optional embodiment, profile server 170 can be implemented within consumption device 105, 110, 115, within social networking service 120, website 130, communication network 140, media service 150, and the like.

Turning now to FIG. 2, a block diagram of an embodiment of a consumption device 200 is shown. Consumption device 200 can operate similar to the devices such as a computer 120, set top box 130, tablet 140, television 150, phone 160, gateway 170, and the like, described in FIG. 1. The device 200 shown can also be incorporated into other systems including an audio device or a display device. In either case, several components necessary for complete operation of the system are not shown in the interest of conciseness, as they are well known to those skilled in the art.

In the device 200 shown in FIG. 2, the content is received by an input signal receiver 202. The input signal receiver 202 can be one of several known receiver circuits used for receiving, demodulation, and decoding signals provided over one of the several possible networks including over the air, cable, satellite, Ethernet, fiber and phone line networks. The desired input signal can be selected and retrieved by the input signal receiver 202 based on user input provided through a control interface

or touch panel interface 222. Touch panel interface 222 can include an interface for a touch screen device. Touch panel interface 222 can also be adapted to interface to a cellular phone, a tablet, a mouse, a high end remote or the like.

The decoded output signal is provided to an input stream processor 204. The
5 input stream processor 204 performs the final signal selection and processing, and includes separation of video content from audio content for the content stream. The audio content is provided to an audio processor 206 for conversion from the received format, such as compressed digital signal, to an analog waveform signal. The analog waveform signal is provided to an audio interface 208 and further to the
10 display device or audio amplifier. Alternatively, the audio interface 208 can provide a digital signal to an audio output device or display device using a High-Definition Multimedia Interface (HDMI) cable or alternate audio interface such as via a Sony/Philips Digital Interconnect Format (SPDIF). The audio interface can also include amplifiers for driving one more sets of speakers. The audio processor 206
15 also performs any necessary conversion for the storage of the audio signals.

The video output from the input stream processor 204 is provided to a video processor 210. The video signal can be one of several formats. The video processor 210 provides, as necessary, a conversion of the video content, based on the input signal format. The video processor 210 also performs any necessary
20 conversion for the storage of the video signals.

A storage device 212 stores audio and video content received at the input. The storage device 212 allows later retrieval and playback of the content under the control of a controller 214 and also based on commands, e.g., navigation instructions such as fast-forward (FF) and rewind (Rew), received from a user interface 216
25 and/or touch panel interface 222. The storage device 212 can be a hard disk drive, one or more large capacity integrated electronic memories, such as static RAM (SRAM), or dynamic RAM (DRAM), or can be an interchangeable optical disk storage system such as a compact disk (CD) drive or digital video disk (DVD) drive.

The converted video signal, from the video processor 210, either originating
30 from the input or from the storage device 212, is provided to the display interface 218. The display interface 218 further provides the display signal to a display device

of the type described above. The display interface 218 can be an analog signal interface such as red-green-blue (RGB) or can be a digital interface such as HDMI. It is to be appreciated that the display interface 218 will generate the various screens for presenting the search results in a two dimensional form as will be described in
5 more detail below.

The controller 214 is interconnected via a bus to several of the components of the device 200, including the input stream processor 202, audio processor 206, video processor 210, storage device 212, and a user interface 216. The controller 214 manages the conversion process for converting the input stream signal into a
10 signal for storage on the storage device or for display. The controller 214 also manages the retrieval and playback of stored content. Furthermore, as will be described below, the controller 214 can interface with search engine 105 for the searching of content and the creation and adjusting of the display of graphical objects representing such content which can be stored or to be delivered via content
15 server 110, described above.

The controller 214 is further coupled to control memory 220 (e.g., volatile or non-volatile memory, including RAM, SRAM, DRAM, ROM, programmable ROM (PROM), flash memory, electronically programmable ROM (EPROM), electronically erasable programmable ROM (EEPROM), etc.) for storing information and
20 instruction code for controller 214. Control memory 220 can store instructions for controller 214. Control memory can also store a database of elements, such as graphic elements containing content, various graphic elements used for generating a displayed user interface for display interface 218, and the like. Alternatively, the memory can store the graphic elements in identified or grouped memory locations
25 and use an access or location table to identify the memory locations for the various portions of information related to the graphic elements. In addition, various graphic elements can be generated in response to computer instructions interpreted by controller 214 for output to display interface 218. Additional details related to the storage of the graphic elements will be described below. Further, the
30 implementation of the control memory 220 can include several possible embodiments, such as a single memory device or, alternatively, more than one memory circuit communicatively connected or coupled together to form a shared or

common memory. Still further, the memory can be included with other circuitry, such as portions of bus communications circuitry, in a larger circuit.

Optionally, controller 214 can be adapted to extract metadata from audio and video media by using audio processor 206 and video processor 210, respectively. That is, metadata that is contained in video signal in the vertical blanking interval, auxiliary data fields associated with video, or in other areas in the video signal can be harvested by using the video processor 210 with controller 214 as to generate metadata that can be used for functions such as generating an electronic program guide, have descriptive information about received video, supporting an auxiliary information service, and the like. Similarly, the audio processor 206 working with controller 214 can be adapted to recognize audio watermarks that can be in an audio signal. Such audio watermarks can then be used to perform some action such as the recognition of the audio signal, security which identifies the source of an audio signal, or perform some other service. Furthermore, metadata to support the actions listed above can come from a network source which are processed by controller 214.

Controller 214 can be also configured to process user interface information and to filter communications and content received from different sources based on the context, subject, topic, and the like of such communications and content where not all of the communications/context received will be displayed based on filtering techniques. For example, if a received communication is from a specific source of a particular context/subject, such a communication can be displayed or further relayed if such the source and subject are specified in user profile information, in accordance with the disclosed principles. Other filtering options can be implemented in accordance with the exemplary embodiments.

Turning now to FIG. 3, the user interface process of the present disclosure employs an input device that can be used to express functions, such as fast forward, rewind, etc for generating user input. To allow for this, a tablet or touch panel device 300 on a consumption device (which is the same as the tablet 140 shown in FIG.1 and/or computer 120, set top box 130, television 150, phone 160, and the like) can be interfaced via the user interface 216 and/or touch panel interface 222 of the receiving device 200. The touch panel device 300 allows operation of the receiving

device or set top box based on hand movements, or gestures, and actions translated through the panel into commands for the set top box or other control device. In one embodiment, the touch panel 300 can simply serve as a navigational tool to navigate the grid display or means that controls a second device via a user interface. In other
5 embodiments, the touch panel 300 will additionally serve as the display device allowing the user to more directly interact with the navigation through the grid display of content. The touch panel device can be included as part of a remote control device containing more conventional control functions such as activator buttons. The touch panel 300 can also include at least one camera element. Note, various
10 touch panel interface 222, buttons, softkeys, trackballs, stylus, touchpads, and the like can operate as an input interface providing a user the ability to control elements shown as part of user interface 216.

Turning now to FIG. 4, the use of a gesture sensing controller or touch screen, such as shown, provides for a number of types of user interaction as user
15 input. The inputs from the controller are used to define gestures and the gestures, in turn, define specific contextual commands. The configuration of the sensors (e.g., touch screen sensors and/or inertial sensors such as accelerators and/or gyroscopic sensors) can permit defining movement of a user's fingers on a touch screen or can even permit defining the movement of the controller itself in either one dimension or
20 two dimensions. Two-dimensional motion, such as a diagonal, and a combination of yaw, pitch and roll can be used to define any three-dimensional motion, such as a swing. A number of gestures are illustrated in FIG. 4. Gestures are interpreted in context and are identified by defined movements made by the user.

Bumping 420 is defined by a two-stroke drawing indicating pointing in one
25 direction, either up, down, left or right. The bumping gesture is associated with specific commands in context. For example, in a TimeShifting mode, a left-bump gesture 420 indicates rewinding, and a right-bump gesture indicates fast-forwarding. In other contexts, a bump gesture 420 is interpreted to increment a particular value in the direction designated by the bump. Checking 440 is defined as in drawing a
30 checkmark. It is similar to a downward bump gesture 420. Checking is identified in context to designate a reminder, user tag or to select an item or element. Circling 440 is defined as drawing a circle in either direction. It is possible that both

directions could be distinguished. However, to avoid confusion, a circle is identified as a single command regardless of direction. Dragging 450 is defined as an angular movement of the controller (a change in pitch and/or yaw) while pressing a button (virtual or physical) on the tablet 300 (i.e., a “trigger drag”). The dragging gesture 5 450 can be used for navigation, speed, distance, time-shifting, rewinding, and forwarding. Dragging 450 can be used to move a cursor, a virtual cursor, or a change of state, such as highlighting outlining or selecting on the display. Dragging 450 can be in any direction and is generally used to navigate in two dimensions. However, in certain interfaces, it is preferred to modify the response to the dragging 10 command. For example, in some interfaces, operation in one dimension or direction is favored with respect to other dimensions or directions depending upon the position of the virtual cursor or the direction of movement. Nodding 460 is defined by two fast trigger-drag up-and-down vertical movements. Nodding 460 is used to indicate “Yes” or “Accept.” X-ing 470 is defined as in drawing the letter “X.” X-ing 470 is 15 used for “Delete” or “Block” commands. Wagging 480 is defined by two trigger-drag fast back-and-forth horizontal movements. The wagging gesture 480 is used to indicate “No” or “Cancel.” That is, any of these types of gestures can be used to select to manipulate a graphic object in accordance with the disclosed embodiments.

Depending on the complexity of the sensor system, only simple one 20 dimensional motion or gestures can be allowed. For instance, a simple right or left movement on the sensor as shown here can produce a fast forward or rewind function. In addition, multiple sensors could be included and placed at different locations on the touch screen. For instance, a horizontal sensor for left and right movement can be placed in one spot and used for volume up/down, while a vertical 25 sensor for up and down movement can be place in a different spot and used for channel up and down. In this way specific gesture mappings can be used.

Referring back to FIG 1, an exemplary embodiment begins with a user denoted as user X who operates a consumption device 105. The user X has friends and acquaintance that user X can link to through a social network service 120 where 30 each friend can use a consumption device 110, 115. In one setting using social network service 120, user X links to other users by sending a “friend” request to other users, whereby the other users will be connected to user X if the “friend”

request is accepted. In this current example, user X can be connected to a plurality of other people through the social networking service 120, for example user X connects to a Connected user 1, Connected user 2, Connected user N. Other ways of connecting users together can be utilized in accordance with the principles of the exemplary embodiments

Once connected to other users, user X can post pictures, videos, messages, and the like to their account where such messages are transmitted to all of the other friends/acquaintances to which the user X is linked to through social networking service 120. Alternatively, user X can send any of these items uniquely to a single user.

An exemplary embodiment of the present disclosure teaches that when a user X transmits an electronic communication to a first user where the electronic communication is of a particular context, a suggestion is made to user X to send a specific message or content to other connected users, based on the profile information of such connected users. That is, profile server 170 develops a unique profile for users based on a number of criteria such as, but not limited to, a user's age, location, marital status, preferences of the user, what content the user typically posts, identifying by keyword analysis the subject matter of the user, and other information can be used for developing such profiles. In addition, a user profile can be further developed by profile server 170 based upon the profiles of connected users linked to user X.

For example, connected users 1 and 2 each have information in their profile that indicates that they enjoy a specific sports team while connected users 3 and 4 like to receive communications about dogs. The social networking system 120 that operates with context server 160 and profile server 170, in this example, can determine through keyword analysis based on the posts that user X receives that user X likes sports (because user X is connected to connected users 1 and 2) and user X likes dogs as well (based on postings from connected users 3 and 4). This can be accomplished by determining the context of different electronic communications in accordance with the disclosed exemplary embodiments.

Continuing with this example, a larger listing of subjects for different user profiles are shown in TABLE 1:

	Sports	Movies	Dogs	Cats	Food
User X	X	X	X	X	
Connected User 1	X	X		X	
Connected User 2	X	X	X		
Connected User 3		X	X		X
Connected User 4	X	X	X	X	

5

TABLE 1

In this present embodiment, user X and connected users 1-4 have a variety of subjects in which they have been identified in having an interest. Such profile information as determined by profile server 170 can be additionally established through demographic information entered in by the users, monitoring what the users do, the topics of the postings that the users send which can be determined via keyword analysis, social network analysis, and the like. The categorization of different contexts can also be performed for websites 130, communication network 140, media service 150, and the like using techniques in accordance with the described techniques above.

15

From the determination of different topics of electronic communications, a profile for user X can be developed user X can specify for a particular source how relevant the context of communications and content from the source are for the user

X. The relevancy can be affected by a user X operating a user interface where the relevancy of the particular source is adjusted using various input or touch interfaces where the size of a particular context and source determines how relevant communications from the source are for a user X.

	Sports	Movies	Dogs	Cats	Food
User X's profile	.2	.3	.15	.05	.25

5

TABLE 2

The implementation of TABLE 2 shows a sample profile for a user X, where the topics of interest for the user are weighted accordance with different values from 0 to 1, where the aggregate summation of such weights could be equal to 1. In an exemplary embodiment, the weights correlate to how much or many of the electronic communications a user X receives concerning these contexts where 20% of the content concerns sports, 30% concerns movies, 15% is about dogs, 5% concerns cats, and 25% is about food. Other weighting approaches and how electronic messages are affected can be implemented in accordance with the exemplary embodiments. Such profile information can be stored and modified by profile server 170.

A user interface 500 as shown in FIG. 5 discloses an exemplary embodiment as how weights are assigned to different contexts for a user profile creating a composition for the user profile. Specifically, various contexts sports 510, movies 520, dogs 530, cats 540, and food 550 are presented as different graphical elements where the area of such graphical elements are proportional to the weighting of such contexts, where the total area of a user's profile is shown in 560. For example, sports 510 would represent 20% of the area of user profile 560, movies 520 represents 30% of the area of user profile 560, dogs 530 represents 15% of the area of user profile 560, cats 540 represents 5% of the area of user profile 560, and food 550 represents 25% of the area of user profile 560.

The various graphical elements of a context can be manipulated by a user in accordance with the principles of user interface 600 shown in FIG. 6. For example, sports context 610 as displayed could represent 20% of a user profile. The graphical element can be made larger in sports context 620 by expanding such an element in view of user input. The result of such an expansion would now have sports context 620 representing 30% of the electronic messages/content received for a user profile. A graphical element 610 can also be reduced in response to a user input into a form shown for sports context 630, where the reduced element represents 10% of a user's profile. Other approaches for expanding and reducing graphical elements which correspond to contexts can be used in accordance with the principles of the present invention.

By using a touch interface, a graphical element can be expanded by a user enlarging such a graphical element by placing two fingers and moving such fingers in an outward direction as shown by arrows 640. A graphical element using a touch interface can also be reduced by using two fingers to pinch a graphical element in a direction as shown with arrows 650.

FIG. 7 represents an exemplary embodiment of a user interface 700 where various graphical elements represent the different contexts in a user profile. In this embodiment, the heights of the graphical elements change in proportion to the weighting of the corresponding context while the widths stay the same. Hence, graphical element 710 that comports to sports represents 20% of a user profile, graphical element 720 that corresponds to movies represents 30% of a user profile, graphical element 730 which relates to dogs represents 15% of a user profile, graphical element 740 for cats represents 5% of a user profile, and the context food which corresponds to graphical element 750 represents 25% of a user profile. Other embodiments can be implemented in accordance with the exemplary principles provided.

	Sports (.2)	Movies (.3)	Dogs (.15)	Cats (.05)	Food (.25)
Connected	.2	.1		.7	

User 1					
Connected User 2	.3	.1	.33		
Connected User 3		.1	.33		.3
Connected User 4	.1	.1	.33	.3	
Website 1	.2				
Website 2		.5			
Website 3		.1			.7
Media Service 1	.2				

TABLE 3

TABLE 3 is a further elaboration as to how the sources of electronic communications and related content are to be treated relative to user X's profile and the contexts in such a profile to form a composition of content and electronic communications. Respective weights are assigned to the contexts of electronic communications from different sources such as connected user 1, connected user 2, connected user 3, connected user 4, website 1, website 2, website 3, and media service 1. The relevancy of the electronic communications from such sources in view of the context of the electronic messages is weighted from a value 0 to 1, where such a weighting can be, for example, the frequency of messages from such sources. The aggregated summation of the weights for a particular topic could be equal to 1. In an exemplary embodiment, if there are 100 messages and/or pieces of content about a particular context such as "CATS", 70% of the messages/content would come from connected user 1 while 30% of the messages/content would come from connected user 4. The profiles stored in profile server 170 are then changed in

accordance with such operations. Other weighting techniques and how to use such weightings for a profile can be used in accordance with the exemplary embodiments.

FIG. 8 is an exemplary embodiment of a user interface 800 that is used to associated various graphical elements that represents contexts to graphical
5 elements that represent various users and sources of content and electronic communications. The various contexts shown as graphical elements are sports 810, movies 820, dogs 830, cats 840, and food 850. Likewise, various sources of content and electronic communications are represented as graphical elements such as connected user 1 (862), connected user 2 (864), connected user 3 (866), connected
10 user 4 (868), website 1 (872), website 2 (874), website 3 (876), and media service 1 (878).

The graphical elements representing sources can be manipulated via user input as shown in a manner in FIG. 9, representing an exemplary embodiment of a use interface 900, to have such sources associated with particular context. For
15 example, a graphical element 976 representing website 3 is dragged using user input on top of the graphical element 920 representing movies. This operation is shown by graphical element 982 that is shown overlapping graphical element 920. Website 3 is also shown to be associated with a context 950 by having a graphical element 984 dragged on top of the graphical element 950.

FIG. 10 discloses a user interface 1000 that is also used to associate contexts
20 with different sources in accordance with an exemplary embodiment. A user using with interface 1000 can draw lines using an input device, finger, stylus, and the like to associate a graphical element representing a source and a graphical element representing a context. For example, graphical element 1076 representing website 3
25 has a line 1090 drawn to a graphical element 1050 representing food. Hence, a user profile will reflect that a user wants to receive electronic communications and/or content from website 3 about food. Similarly, in response to a line 1095 being drawing from a graphical element 1074 representing website 2 to a graphical element 1020 representing movies, a user profile will reflect that a user wants to
30 receive electronic communications and/or content from website 2 that concerns

movies. Other mechanisms can be used for having such associations made between sources and contexts in accordance with exemplary embodiments of the invention.

FIG. 11 presents an exemplary embodiment of a user interface 1100 that is used to allocate weights to a context for a user profile. Specifically, for a subject
5 food that comports to graphic element 1150, 30% of the profile will have content/electronic communications about food come from connected user 3 which comports to element 1110 while 70% of content/electronic communications about food will come from website 3 that comports to graphic element 1120. FIG. 12 presents an exemplary embodiment of a user interface 1200, the weights of the
10 sources of content/electronic communications change in response to user input for a context food 1250. That is, the percentage of content/electronic communications changes from connected user 3 from 30% (1110) to 50% (1210). While, the profile will have amount of content/electronic communications from website 3 change from the 70% as shown by graphic element 1120 to 50% shown in graphic element 1220.
15 That is, when a graphical representation of a source, context, and the like is adjusted in response to user input, the associated elements of a user profile are adjusted accordingly.

FIG. 13 discloses a flowchart 1300 for implementing method that provides a user profile that can be used to manage the associations of different contexts of
20 electronic communications and content from different sources in accordance with an exemplary embodiment. In step 1310, a user profile is created. Such a profile can be generated with a user interface, using implicit methods, using explicit methods, and/or a combination of these approaches in accordance with the disclosed exemplary embodiments for profile server 170. Such a user profile is used to
25 manage the context/topics of communications and content received from different sources. Also, the user profile can be used to control the composition of topics received from different sources in accordance with the principles of the exemplary embodiments.

In step 1320, a user interface can be generated that has graphical elements
30 corresponding to sources of electronic communications and content. Such sources can be other users, websites, communication networks, consumption devices, social

networks, media services, and the like. For example, a newspaper article from a website, a message from a user, and a video all are examples of content from potential sources in an exemplary embodiment.

In step 1330, a user interface can be generated which shows graphical
5 elements that comport to sources of electronic communications and content. That is, a user interface can show various graphical elements such as shapes, pictures, graphics, bitmaps, vector images, and the like which are associated with different contexts/subjects. For example, a graphical element of a picture of a baseball can represent the subject baseball while a graphical element labeled "sports" can
10 represent the topic of sports as well. Other approaches can be used in accordance with the principles of the invention.

In step 1340, a user interface is used to manage the associations of selected contexts/subjects with different sources of electronic communications and content in response to user input. Such associations can be performed in accordance with the
15 disclosed exemplary embodiments where a specific context is associated with a specific source. The weightings for a specific context, source, and a combination thereof can also be performed during step 1340 where such weighting can be used to affect the composition (amount) of content, contexts, and sources for a user profile. A composition can also be used to affect the frequency of how often
20 communications from different sources are displayed when such communications concern the same subject/context. Composition information can also be used for determining how frequently communications/content of different subjects can be displayed. For example, communications concerning dogs are displayed 80% of the time while communications concerning sports are displayed the remaining 20% of
25 the time. Other examples of how composition information affects the display of communications/context can be implemented in accordance with the disclosed principles.

In step 1350, a user profile is automatically adjusted for profile server 170 in response to the outputs of step 1340.

30 In step 1360, the disclosed management method can cause a user to receive content and electronic messages in response to the determined user profile. That is,

a consumption device 105 can filter the content and messages that are received in accordance with the exemplary principles. A consumption device 105 can also communicate such preferences to different sources of content and electronic communications so the filtering is done by the sources themselves instead of having
5 a consumption device perform such operations. Other approaches for content and electronic message delivery can be performed in accordance with the disclosed embodiments.

It should be understood that the elements shown in the figures can be implemented in various forms of hardware, software or combinations thereof.
10 Preferably, these elements are implemented in a combination of hardware and software on one or more appropriately programmed general-purpose devices, which may include a processor, memory and input/output interfaces.

The present description illustrates the principles of the present disclosure. It will thus be appreciated that those skilled in the art will be able to devise various
15 arrangements that, although not explicitly described or shown herein, embody the principles of the disclosure and are included within its scope.

All examples and conditional language recited herein are intended for informational purposes to aid the reader in understanding the principles of the disclosure and the concepts contributed by the inventor to furthering the art, and are
20 to be construed as being without limitation to such specifically recited examples and conditions.

Moreover, all statements herein reciting principles, aspects, and embodiments of the disclosure, as well as specific examples thereof, are intended to encompass both structural and functional equivalents thereof. Additionally, it is intended that
25 such equivalents include both currently known equivalents as well as equivalents developed in the future, i.e., any elements developed that perform the same function, regardless of structure.

Thus, for example, it will be appreciated by those skilled in the art that the block diagrams presented herein represent conceptual views of illustrative circuitry
30 embodying the principles of the disclosure. Similarly, it will be appreciated that any

flow charts, flow diagrams, state transition diagrams, pseudocode, and the like represent various processes that can be substantially represented in computer readable media and so executed by a computer or processor, whether or not such computer or processor is explicitly shown. The computer readable media and code
5 written on can be implemented in a transitory state (signal) and a non-transitory state (e.g., on a tangible medium such as CD-ROM, DVD, Blu-Ray, Hard Drive, flash card, or other type of tangible storage medium).

The functions of the various elements shown in the figures may be provided through the use of dedicated hardware as well as hardware capable of executing
10 software in association with appropriate software. When provided by a processor, the functions may be provided by a single dedicated processor, by a single shared processor, or by a plurality of individual processors, some of which may be shared. Moreover, explicit use of the term "processor" or "controller" should not be construed to refer exclusively to hardware capable of executing software, and may implicitly
15 include, without limitation, digital signal processor ("DSP") hardware, read only memory ("ROM") for storing software, random access memory ("RAM"), and nonvolatile storage.

Other hardware, conventional and/or custom, may also be included. Similarly, any switches shown in the figures are conceptual only. Their function may be
20 carried out through the operation of program logic, through dedicated logic, through the interaction of program control and dedicated logic, or even manually, the particular technique being selectable by the implementer as more specifically understood from the context.

Although embodiments which incorporate the teachings of the present
25 disclosure have been shown and described in detail herein, those skilled in the art can readily devise many other varied embodiments that still incorporate these teachings. It is noted that modifications and variations can be made by persons skilled in the art in light of the above teachings.

Claims

1. A method for managing communications comprising the steps of:
 - receiving via a user interface user profile data concerning a context; and
 - managing a communication of said context based on the user profile data.
- 5 2. The method of claim 1 wherein said managing step further comprises the steps of:
 - determining whether said communication is from a first source specified in said user profile data; and
 - generating information for display when said communication is from said first source.
- 10 3. The method of claim 2 further comprising the steps of:
 - determining whether a second communication is from a second source specified in said user profile data; and
 - generating information for display when said second communication is from said second source and said second communication is of said context.
- 15 4. The method of claim 1 further comprises the steps of:
 - generating a first graphic element which corresponds to said context;
 - generating a second graphic element which corresponds to a first source; and
 - modifying said user profile data as to associate said context with said first source in response to a first user input that uses at least one of: said first graphic
 - 20 element and said second graphic element.
5. The method of claim 4 wherein a receipt of said communication will cause information to be generated for display when it is determined that said communication is from said first source specified in said modified user profile data.
6. The method of claim 4 further comprising the steps of:

generating a third graphic element which corresponds to a second source;
and

modifying said user profile data to associate said context with said second
source in response to a second user input that uses at least one of: said first graphic
5 element and said third graphic element.

7. The method of claim 6 wherein a receipt of a second communication will cause
information to be generated for display when it is determined that said second
communication is of said context and said second communication is from said
second source specified in said modified user profile data.

10 8. The method of claim 7 where a composition specified in said modified user profile
data affects a frequency of how often further communications are to be displayed
from said first source and said second source.

9. The method of claim 4 further comprising the steps of:

15 generating a third graphic element which corresponds to a second context;
and

modifying said user profile data to associate said second context with said
first source in response to a second user input that uses at least one of: said second
graphic element and said third graphic element.

10. The method of claim 9 wherein a receipt of a second communication will cause
20 information to be generated for display when it is determined that said second
communication is of said second context and said second communication is from
said second source specified in said modified user profile data.

11. The method of claim 10 where a composition specified in said modified user
profile data affects a frequency of how often further communications are to be
25 displayed concerning said context and second context.

12. The method of claim 1 wherein said context is at least one of: a topic, a subject,
and a category.

13. An apparatus comprising:

a display processor that generates a first graphic element that corresponds to a context;

said display processor generates a second graphic element that corresponds to a source; and

5 a controller that generates user profile information that associates said context with said source in response to user input that uses said first and second graphic element.

14. The apparatus of claim 13 wherein:

10 said controller determines whether a communication from said source concerns said context, and

said display processor generates information for display when said communication is from said first source and is of said context.

15. The apparatus of claim 13 wherein:

15 said display processor generates a third graphical element that corresponds to a second source, and

said controller modifies said user profile information as to associate said context with said second source in response to user input that uses at least one of: said first graphic element and third graphic element.

16. The apparatus of claim 15 wherein:

20 said controller determines whether a communication from said second source concerns said context, and

said display processor generates information for display when said communication is from said second source and is of said context.

17. The apparatus of claim 13 wherein:

25 said display processor generates a third graphical element that corresponds to a second context, and

said controller modifies said user profile information as to associate said second context with said source in response to user input that uses at least one of: said second graphic element and said third graphic element.

18. The apparatus of claim 17 wherein:

5 said controller determines whether a communication from said \ source concerns said second context, and

 said display processor generates information for display when said communication is from said source and is of said second context.

19. The apparatus of claim 13 wherein said context is at least one of: a topic, a
10 subject, and a category.

20. A computer readable medium tangibly embodying computer instructions that is used for managing communications comprising the steps of:

 a first computer instruction for receiving via a user interface user profile data concerning a context; and

15 a second computer instruction for managing a communication of said context based on the user profile data.

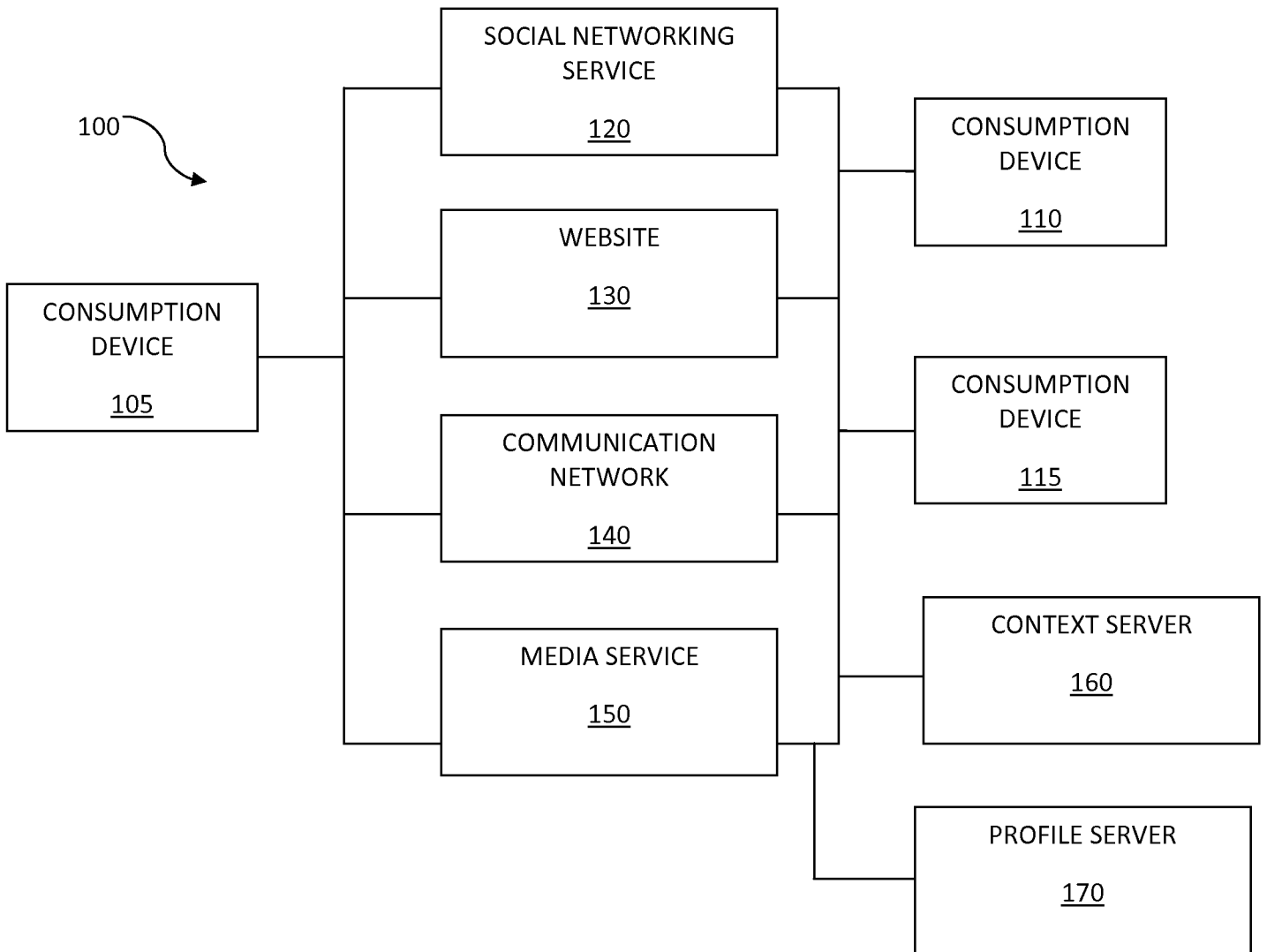


FIG. 1

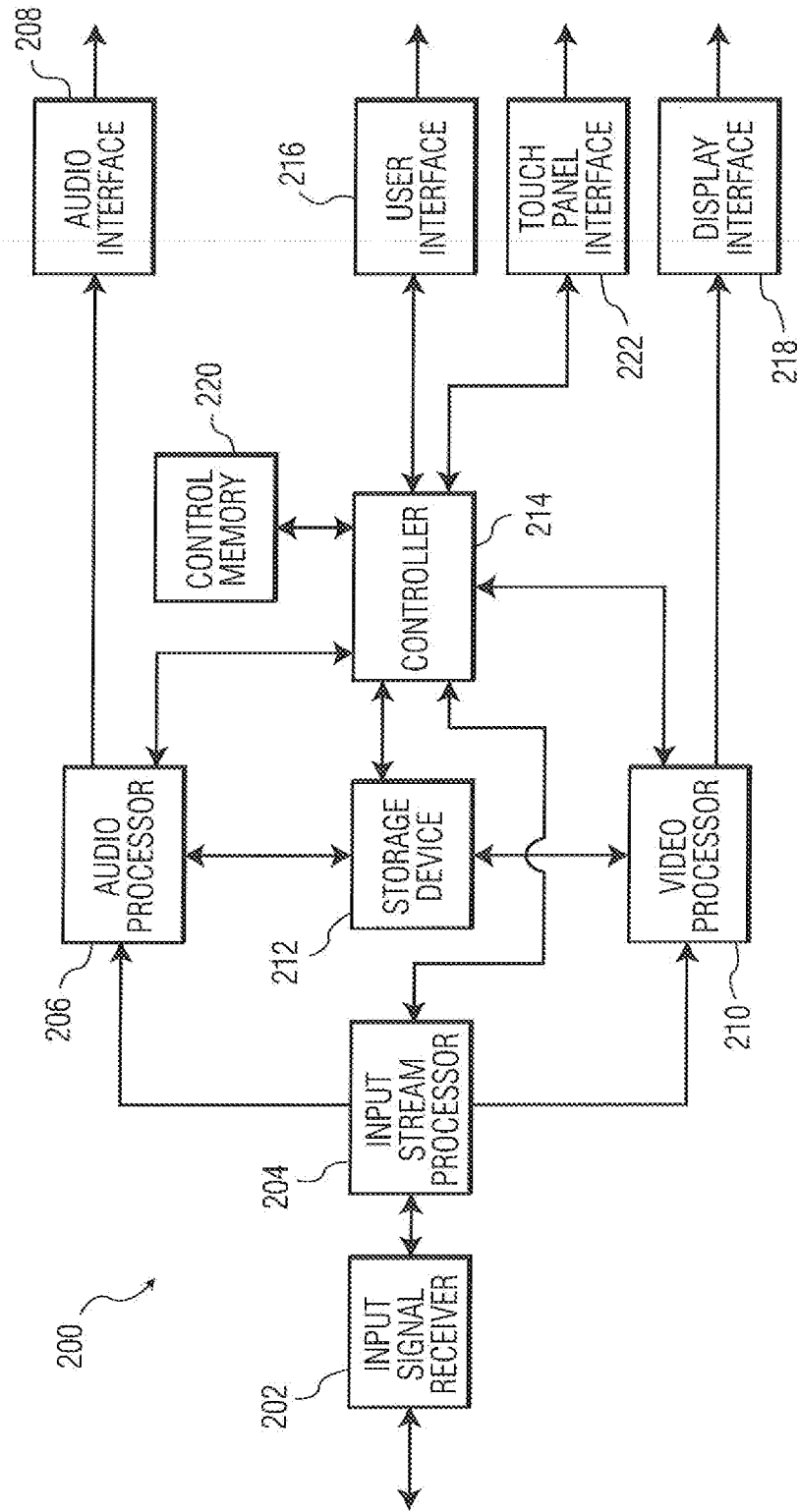


FIG. 2

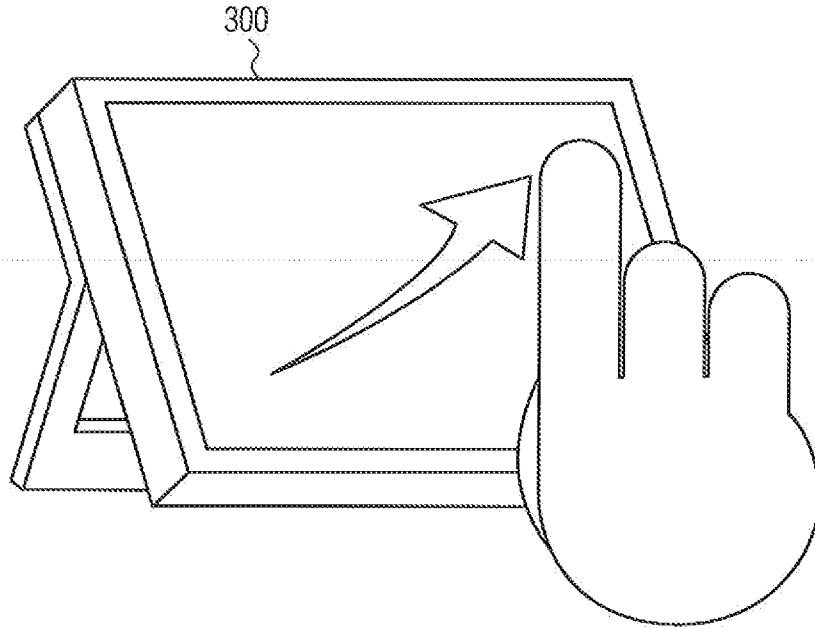


FIG. 3

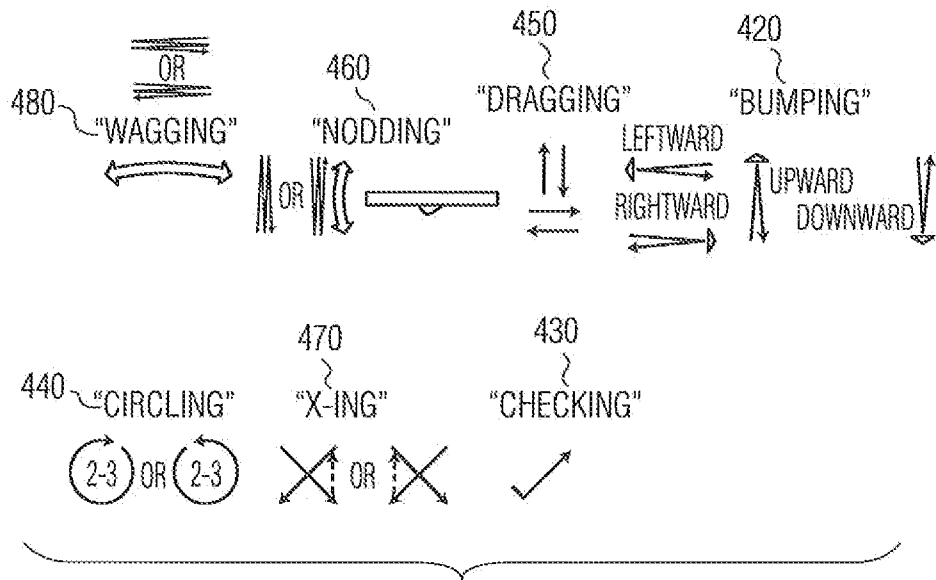


FIG. 4

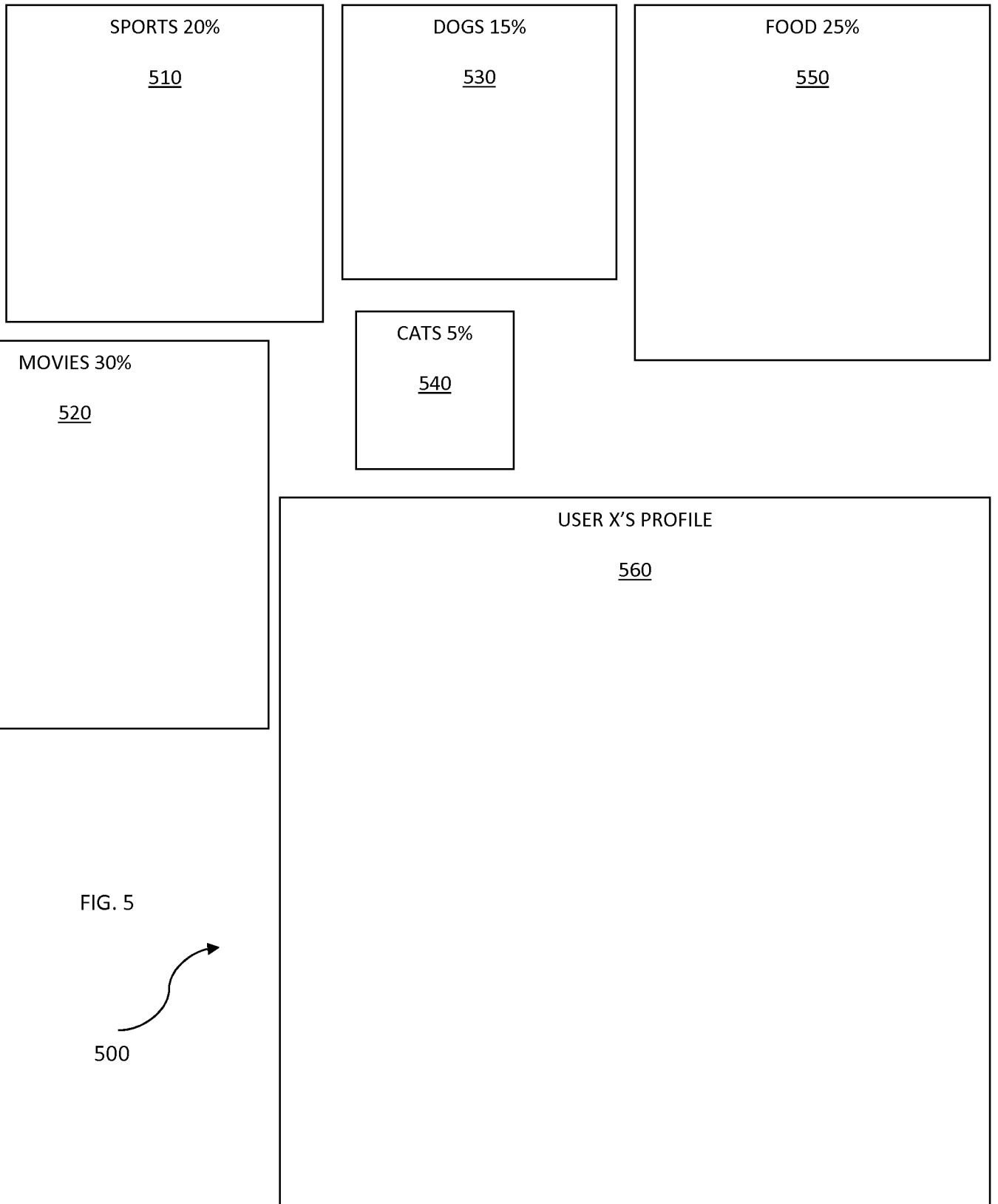
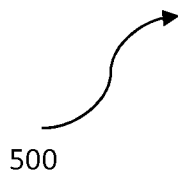


FIG. 5



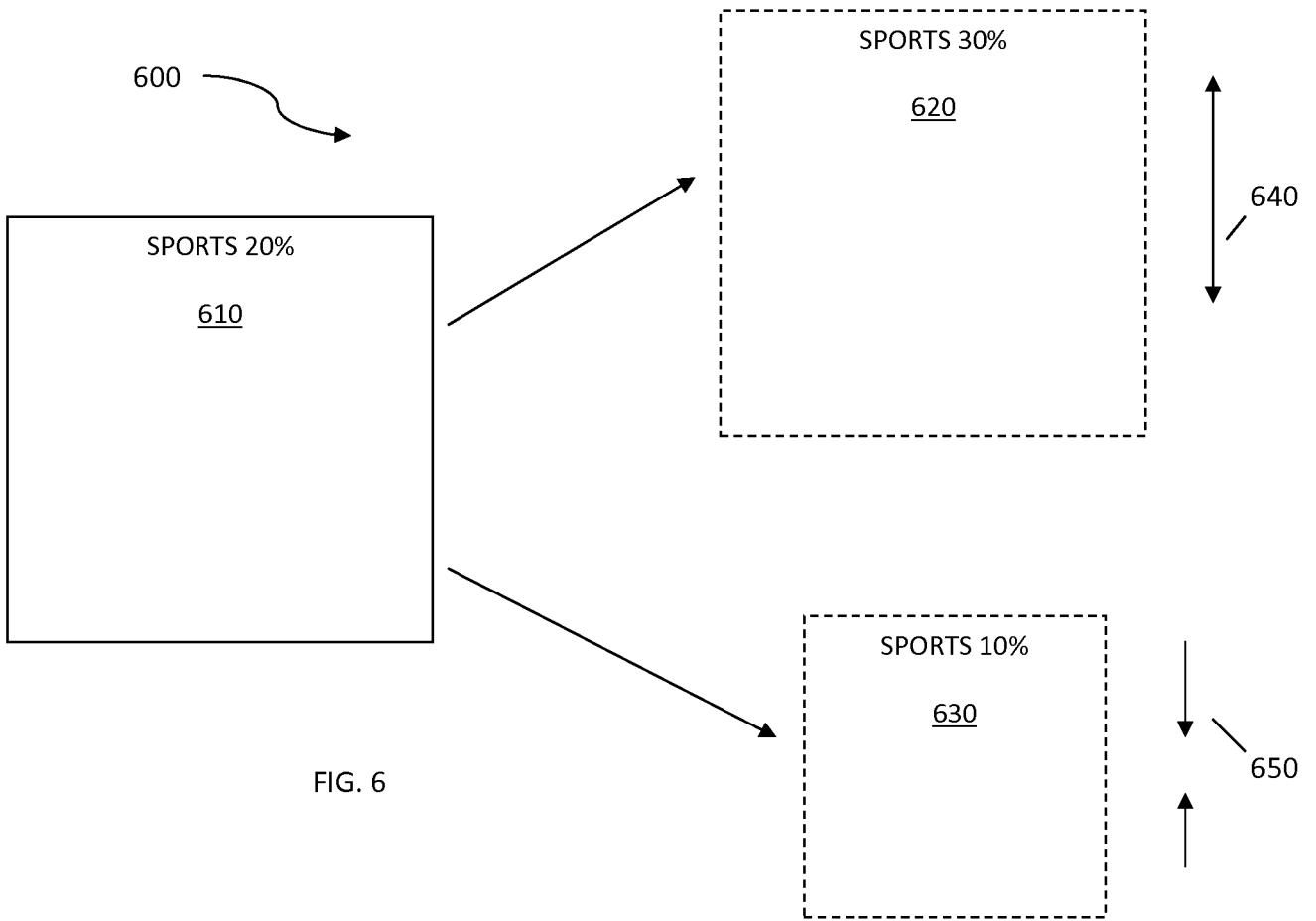
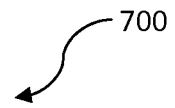


FIG. 6

SPORTS – 20%
710

700


MOVIES – 30%
720

DOGS – 15%
730

FIG. 7

CATS – 5% 740

FOOD – 25%
750

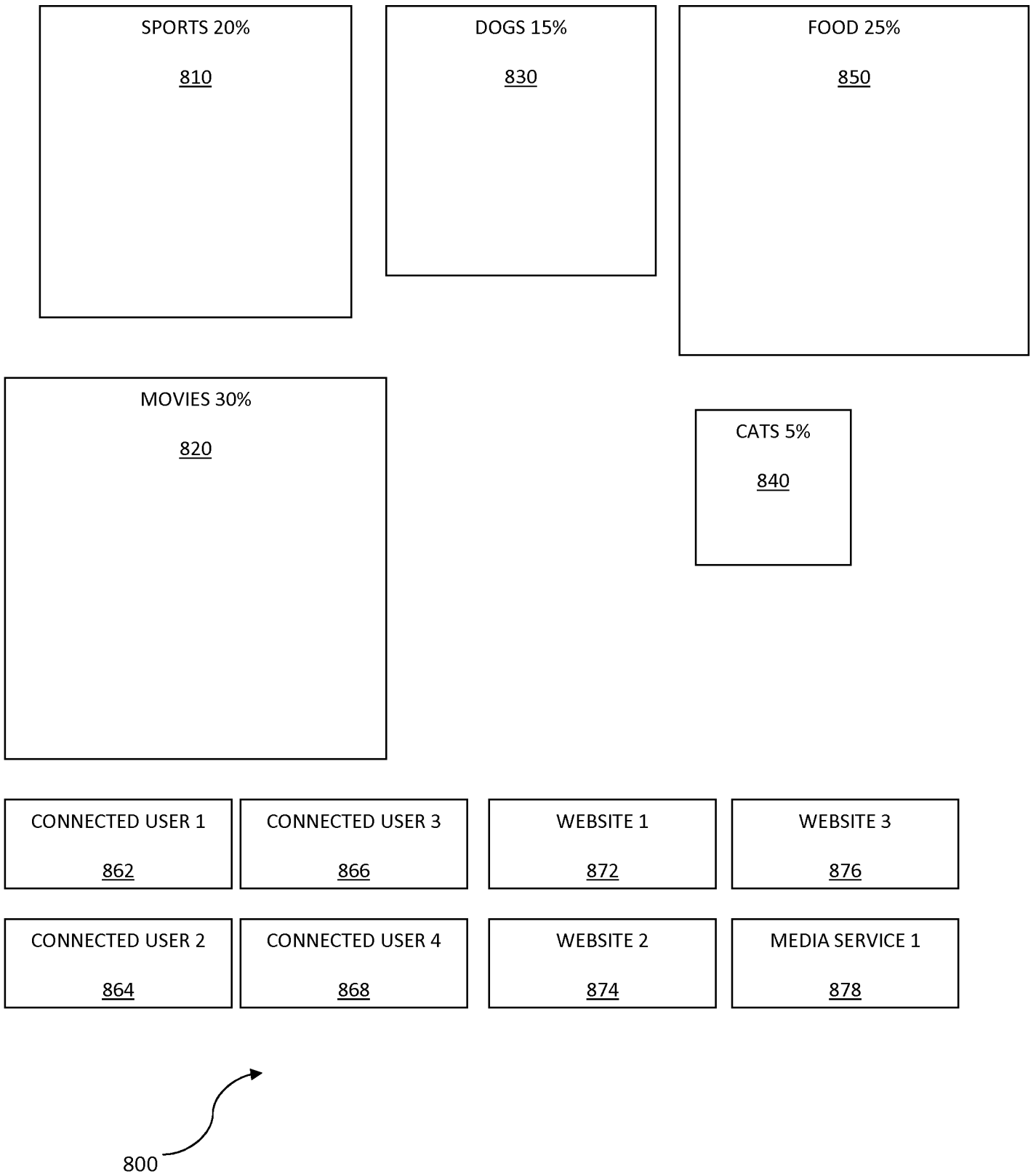


FIG. 8

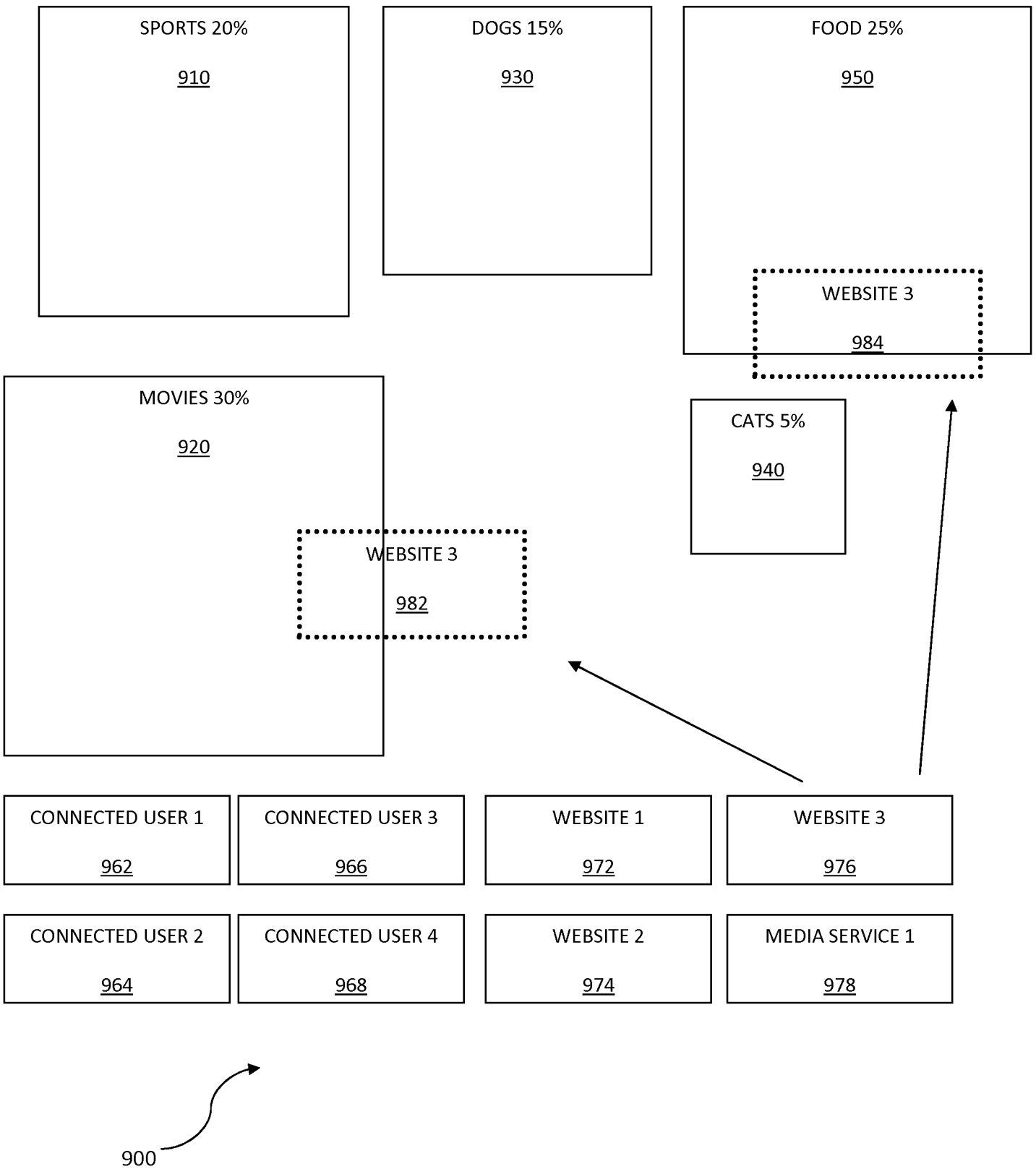


FIG. 9

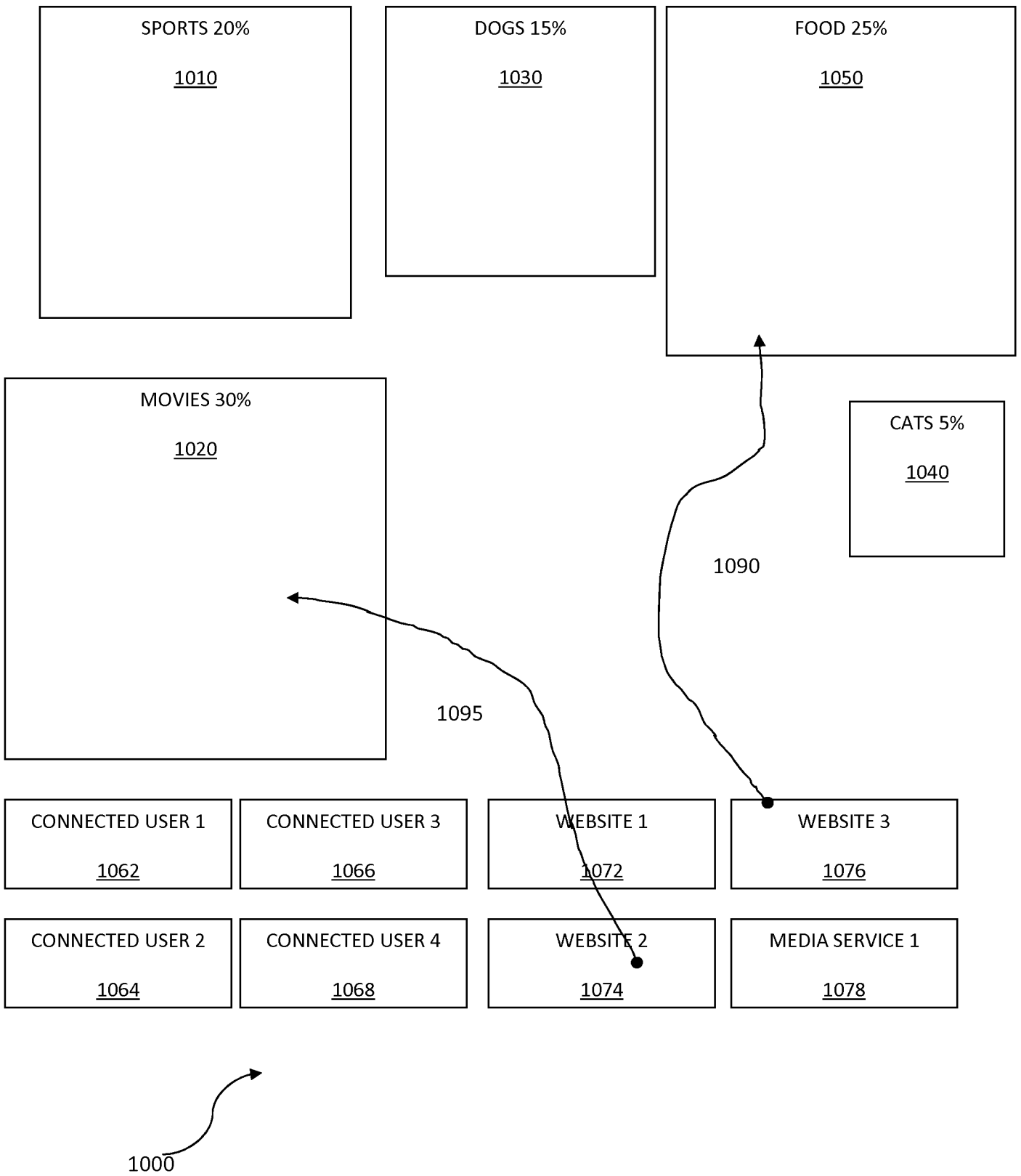


FIG. 10

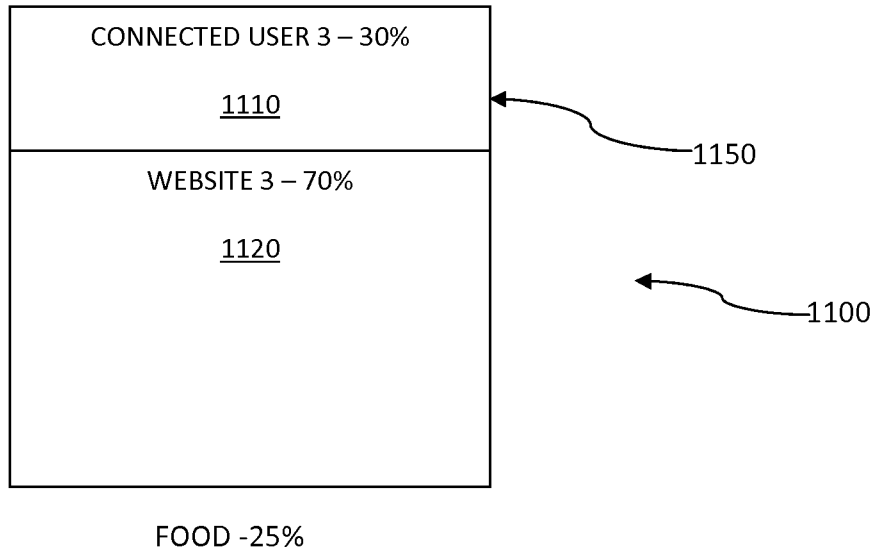


FIG. 11

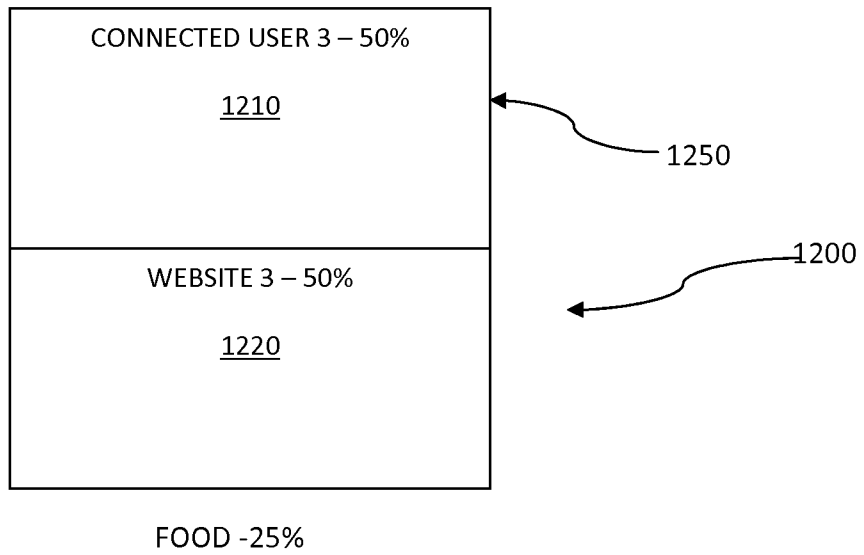


FIG. 12

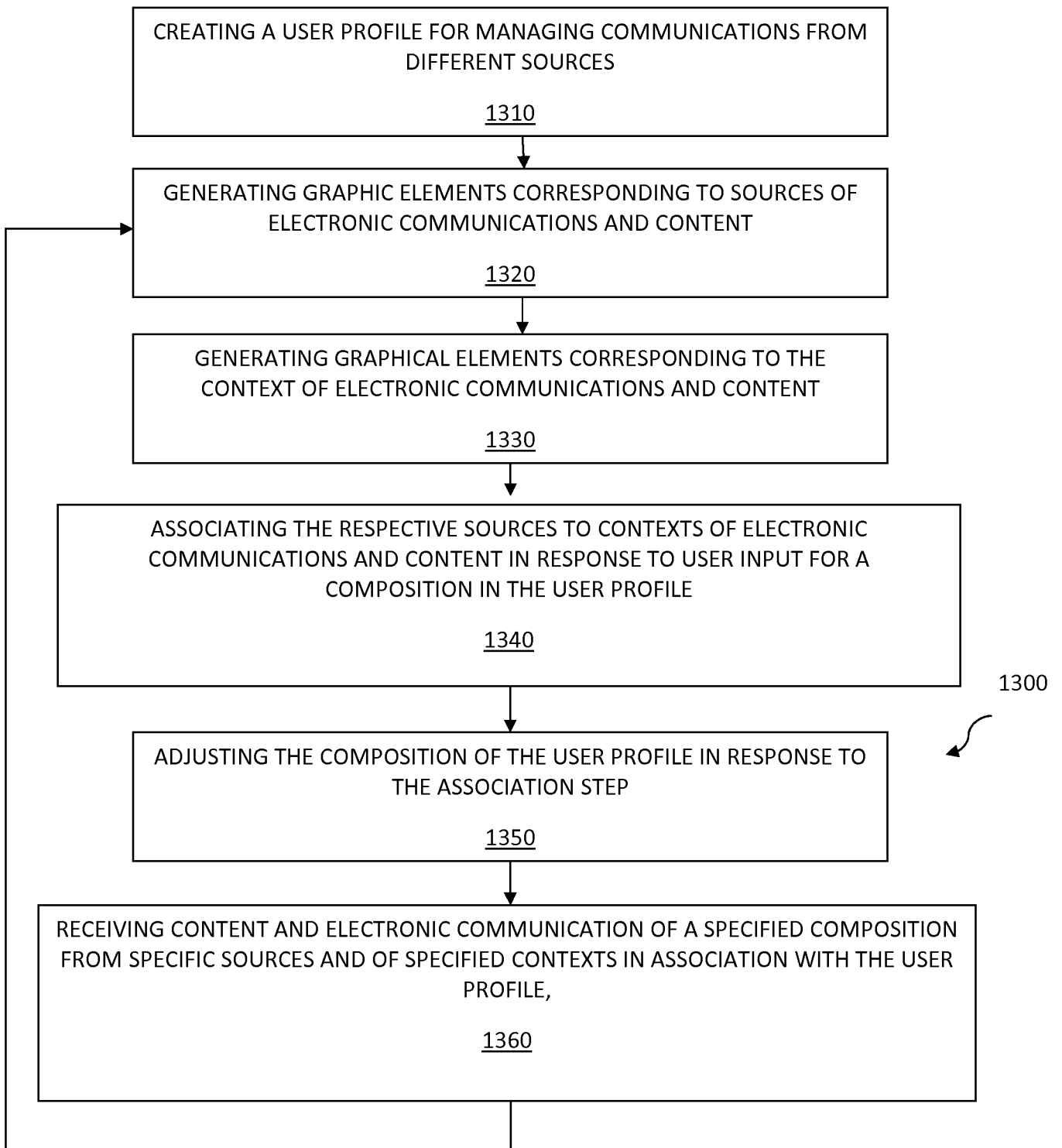


FIG. 13

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US 12/50159

A. CLASSIFICATION OF SUBJECT MATTER

IPC(8) - G06F 3/00 (2012.01)

USPC - 715/747

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)
USPC: 715/747

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched
USPC: 715/747, 751; 709/207 (keyword limited - see terms below)

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

PubWEST (PGPB, USPT, USOC, EPAB, JPAB); GOOGLE; GoogleScholar; GooglePatents

Search Terms: communication, mail, message, email, context, subject, topic, classification, category, user, profile, interface, display, graphic, input, second, multiple, times, frequency, reply, answer, respond, manage

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 2004/0154022 A1 (Boss et al.) 05 August 2004 (05.08.2004), entire document, especially; abstract, para. [0009], [0028]-[0030], [0033]-[0035], [0048]-[0051], [0058], Fig. 7A, 7B	1 - 20
A	US 2006/0106846 A1 (Schulz et al.) 18 May 2006 (18.05.2006), entire document	1 - 20
A	US 2005/0010877 A1 (Udler) 13 January 2005 (13.01.2005), para [0011], [0030]-[0034]	1 - 20
A	US 2009/0113346 A1 (Wickramasuriya et al.) 30 April 2009 (30.04.2009), para [0054]-[0060]	1 - 20

Further documents are listed in the continuation of Box C.

* Special categories of cited documents:	"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
"A" document defining the general state of the art which is not considered to be of particular relevance	"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
"E" earlier application or patent but published on or after the international filing date	"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
"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)	"&" document member of the same patent family
"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	

Date of the actual completion of the international search 19 September 2012 (19.09.2012)	Date of mailing of the international search report 09 OCT 2012
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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	Authorized officer: Lee W. Young PCT Helpdesk: 571-272-4300 PCT OSP: 571-272-7774
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