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INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification ⁶:

G06F 17/60

A1

(11) International Publication Number: WO 99/01834

(43) International Publication Date: 14 January 1999 (14.01.99)

(21) International Application Number: PCT/US98/13405

(22) International Filing Date: 30 June 1998 (30.06.98)

(30) Priority Data:

60/051,587 2 July 1997 (02.07.97) US 09/001,778 31 December 1997 (31.12.97) US

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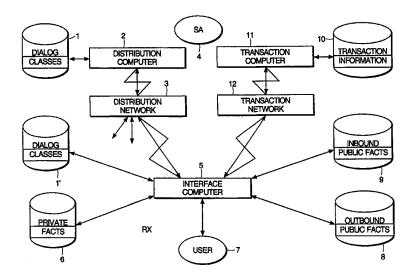
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Published

With international search report.

Before the expiration of the time limit for amending the claims and to be republished in the event of the receipt of amendments.

(54) Title: SYSTEM AND METHOD FOR THE SECURE DISCOVERY, EXPLOITATION AND PUBLICATION OF INFORMATION



(57) Abstract

System and method of discovering and exploiting information such as private or confidential facts from a user, while securing the information from unauthorized publication include a sender having a processing module transmitting a request for publication of information about a user; an agent in communication with the sender receiving the request for the information, and a user in communication with the agent responding to prompts initiated by the agent. The prompts request the user to disclose facts relating to the information desired by the sender, and provide indicia relating to authorization for publication of the disclosed facts to the sender. The agent receives the facts and determines whether such facts are to be made available to the sender. The agent can include a memory module, and a processing module such as a rule engine using dialog classes, for communicating with the sender and user, determining whether the indicia of authorization for the facts permits publication of the facts to the sender, and publishing the facts to the sender when said indicia represents a grant of authorization for publication.



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SYSTEM AND METHOD FOR THE SECURE DISCOVERY, EXPLOITATION AND PUBLICATION OF INFORMATION

Field of the Invention

The invention relates to a system and method of discovering and exploiting information such as private or confidential information from a user, while securing the information from unauthorized publication.

Background of the Invention

Consumer research has focused on discovering user information such as demographic, personal or identifying information and using this information to provide the user with products or services tailored to his geographic area, age, gender, nationality or preferences. Typically such information can be obtained through the use of cash-registers, kiosks, telephones, televisions and computers. While information is often obtained for marketing purposes, such information is also useful for other purposes.

A system for obtaining demographic information is described in U.S. Patent No. 5,369,571 to Metts, in which a store clerk enters data relating to consumer socio-demographic characteristics while ringing consumer's purchases at a cash register. In U.S. Patent No. 5,237,157 to Kaplan, discovery of marketing information relative to the tastes of music buyers is carried out while a user interacts with a music sampling kiosk in a music store. In U.S. Patent No. 5,515,098 to Carles, marketing data previously obtained and recorded on a central database is used to target specific commercial messages to on-demand television subscribers. The operation of a central database is a common characteristic of the above systems. Personalized interactions based on user-dependent data, if present, require a user to provide user information for this database as a condition to obtaining the benefit of any privileges provided thereby.

In other systems used to obtain identifying information from a user, all interactions between a user and the system are localized, including user-dependent discovery, storage and use of the information. In U.S. Patent No. 5,555,074 to Jacobs disclosed is a system for delivering personalized greeting cards to consumers interacting with a kiosk. The system is able to query a



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consumer for user-dependent data, store it for the duration of the interactive session and use it to propose a selection of personalized products for purchase. Although this system does not provide for permanent recording of user-dependent data, its ability to perform data discovery and exploitation relative to a plurality of users is similar to the above systems that retain such data in a central database.

In U.S. Patent No. 4,899,373 to Lee, a system providing personalized, location-independent telephone services is disclosed, in which user-dependent data is transmitted from a credit card and temporarily stored on the local exchange that services the telephone picked up by the user. In U.S. Patent No. 5,552,586 to Kalman, a memory card is used to store user data relative to the interactions of the user with a plurality of social agencies. While this system provides access codes to allow for the protection of confidential data against disclosure to an unauthorized agency, when access is granted to an authorized agency, user data is unprotected as data is recorded in the computer of this case worker. These and other systems that record user-dependent data on a local medium, particularly a removable medium such as a disc drive, typically allow others to access this data independently of user control. Often, access is obtained by providers of the card or storage medium, as well as others with whom the user-dependent data was discovered in the first place.

Similar observations can be made relative to the use of the Internet. Hypertext markup language HTML and Java applets can be used in a discovery phase to report their findings to a central database. Similarly, cookies and executable code for push technology can record user-dependent data locally to avoid repetitive data entry by the user. Such processes can be thought of as a local extension of the central server, as typically they provide no privacy protection besides a possible declaration of intent to preserve information in confidence.

The proposal by Firefly, Inc. for an "Open Profiling Standard" (OPS) presents a framework for such "before disclosure" user control. Within its scope, attention is given to important issues such as identification of entities and parties and security of communications between them. The OPS describes how an entity may negotiate access to confidential information on a party for the sake of offering a personalized service to this party. While the OPS gives an excellent description of the disclosure process and allows for party-dependent data to be kept locally under the party's control, its spirit is still to trade disclosure for personalization. It would



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be advantageous to break this link so as to reduce the need for disclosure while potentially increasing its economic value.

Summary of the Invention

The present invention is directed to a system and method for the disclosure and controlled publication of information. In one embodiment, the system and method requests disclosure of information and publishes such information only when consent for publication is affirmatively given. The present invention is further directed to a system and method for the controlled publication of information. In this embodiment, stored information is published only when consent for publication exists.

In one embodiment, the system includes a sender in communication with a transmission medium, comprising a processing module transmitting a request for publication of a fact over the transmission medium; an agent in communication with the transmission medium, receiving said request for the fact from the sender, and a user in communication with the agent over the transmission medium. The agent requests that the user disclose facts, referred to herein as "private facts" and provide indicia relating to authorization for publication of the disclosed facts. Facts having indicia relating to positive authorization for publication are referred to herein as "public facts". The agent receives the facts and determines whether such facts are to be made available to the sender, referred to herein as "published". The agent can include a memory module storing a plurality of facts and the indicia of authorization for publication; a processing module in communication with the memory module for determining whether the indicia of authorization for the facts disclosed by a user permits publication of the facts to the sender, and providing the facts to the sender when said indicia of authorization permits publication of the facts, that is, when the facts are considered public facts.

In one embodiment, the system is implemented using one or more rule engines, and a plurality of dialog classes that control the strategy of the interaction between the agent and the user such that the goals of the sender are carried out while the confidentiality of private facts disclosed by the user is maintained. Using the dialog classes the rule engine can prompt the user to disclose private facts and provide indicia of authorization for publication of such facts to the sender. The dialog classes further use the private and public facts associated with the user along



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