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(54) ~~METHOD AND APPARATUS FOR PROVIDING AND MAINTAINING A USER-INTERACTIVE PORTAL SYSTEM ACCESSIBLE VIA INTERNET OR OTHER SWITCHED-PACKET NETWORK~~SERVER-SIDE WEB SUMMARY GENERATION AND PRESENTATION

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(~~*~~) ~~Notice: This is a publication of a continued prosecution application (CPA) filed under 37 CFR 1.53(d)~~ ~~Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.~~

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(56) References Cited

U.S. PATENT DOCUMENTS

[5,649,186 * 7/1997 Ferguson 707/10](#)
[5,708,825 * 1/1998 Sotomayor 707/501](#)
[5,794,233 * 8/1998 Rubinstein 707/4](#)
[5,855,015 * 12/1998 Shoham 707/5](#)
[5,931,907 * 8/1999 Davies et al. 709/218](#)
[5,983,227 * 11/1999 Nazem et al. 707/10](#)
[5,987,466 * 11/1999 Greer et al. 707/10](#)
[6,029,180 * 2/2000 Murata et al. 707/501](#)
[6,029,182 * 2/2000 Nehab et al. 707/523](#)
[6,032,162 * 2/2000 Burke 707/501](#)
[6,038,668 * 8/2000 Chipman et al. 713/201](#)
[6,041,326 * 3/2000 Amro et al. 707/10](#)
[6,108,686 * 8/2000 Williams, Jr. 709/202](#)
[6,119,101 * 9/2000 Peckover 705/10 X](#)

OTHER PUBLICATIONS

[Stanley, Tracey, "Intelligent Searching Agents on the Web", 4 pages, <<http://www.ariadne.ac.uk/issu7/search-engines/>> Jan. 1997.*](#)

[Jansen, James, "Using an Intelligent Agent to Enhance Search Engine Performance", 16 pages, <\[http://www.first-monday.dk/issues/issue2_3/jansen/\]\(http://www.first-monday.dk/issues/issue2_3/jansen/\)> Dec. 1998.*](#)

[Lesser, Victor et al, "BIG: A Resource Bounded Information Gathering Agent", 18 pages, <<http://dis.cs.umass.edu/research/big/>> Jan. 1998.*](#)

[* cited by examiner](#)

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(57) ABSTRACT

[An Internet Portal is enabled by software executing on an A portal server includes a software agent configured to do summary searches for subscribers based on Internet destinations provided](#)

by the subscribers, to retrieve information from such destinations based on pre-programmed site information, and to download the summary information to the subscriber. The destinations and the nature of the information to be retrieved is pre-programmed. There is further a configuration and initiation interface for a subscriber to set up and start a summary search. In some cases the summary searches are configured for individual clients as templates stored and retrieved at the Internet-connected server. ~~The Portal, in response to a log-on by a user, presents a secure and personalized page for and to the user, the personalized page having listed plural Internet destinations enabled by hyperlinks, wherein upon invocation of a hyperlink by the subscriber, such as by a point-and-click technique, the portal invokes a URL for the destination, and upon connection with the destination, transparently provides any required log-on information for user access at the destination. In an enhanced embodiment a search function is provided wherein a user may configure searches in any or all of the listed destinations on a personalized page. Provision is provided for log-on by limited appliances, such as by a Smartcard or embedded password, and in some embodiments functionality is provided in a browser plug-in wherein a user may navigate to a site, and, in response to a request for log-in data, the subscriber may use a hot key or pointer input, which will cause the browser to access and provide the needed data from the Password All source~~Also in some cases retrieved information is immediately sent to the subscriber, and in other situations such information is saved at the portal to be retrieved by a subscriber at a later time. In preferred embodiments of the invention autologins are accomplished for a subscriber at Internet destinations by use of pre-stored configuration information.

SERVER-SIDE WEB SUMMARY GENERATION AND PRESENTATION

CROSS-REFERENCE TO RELATED DOCUMENTS

The present invention is a continuation in part (CIP) to patent application Ser. No. 09/208,740 entitled "Method and Apparatus for Providing and Maintaining a User-Interactive Portal System Accessible via Internet or other Switched-Packet-Network" filed on Dec. 8, 1998, pending, disclosure of which is incorporated herein in its entirety herein by reference.

~~METHOD AND APPARATUS FOR PROVIDING AND MAINTAINING A USER-INTERACTIVE PORTAL SYSTEM ACCESSIBLE VIA INTERNET OR OTHER SWITCHED-PACKET-NETWORK~~

FIELD OF THE INVENTION

~~[0001]~~ The present invention is in the field of Internet navigation and browsing, including various communication means and connection technologies and pertains more particularly to methods and apparatus for providing and maintaining an Internet portal configured to provide access to an interaction with other Internet information sources, including software, for gathering summary information from users or enterprise-selected WEB sites and presenting the information as HTML to the user using either a push or pull technology.

BACKGROUND OF THE INVENTION

~~[0002]~~ The information network known as the world-wide web World Wide Web (WWW), which is a subset of the well-known Internet, is arguably the most complete source of publicly-accessible information available. Anyone with a suitable Internet appliance such as a personal

computer with a standard Internet connection may access (go on-line) and navigate to information pages (termed web pages) stored on Internet-connected servers for the purpose of garnering information and initiating transactions with hosts of such servers and pages.

~~{0003}~~ Many companies offer various subscription services accessible via the Internet. For example, many people now do their banking, stock trading, shopping, and so forth from the comfort of their own homes via Internet access. Typically, a user, through subscription, has access to personalized and secure WEB pages for such functions. By typing in a user name and a password or other personal identification code, a user may obtain information, initiate transactions, buy stock, and accomplish a myriad of other tasks.

~~{0004}~~ One problem that is encountered by an individual who has several or many such subscriptions to Internet-brokered services is that there are invariably many passwords and/or log-in codes to be used. Often a same password or code cannot be used for every service, as the password or code may already be taken by another user. A user may not wish to supply a code unique to the user such as perhaps a social security number because of security issues, including quality of security, that may vary from service to service. Additionally, many users at their own volition may choose different passwords for different sites so as to have increased security, which in fact also increases the number of passwords a user may have.

~~{0005}~~ Another issue that can plague a user who has many passworded subscriptions is the fact that they must bookmark many WEB pages in a computer cache so that they may quickly find and access the various services. For example, in order to reserve and pay for airline travel, a user must connect to the Internet, go to his/her book-marks file and select an airline page. The user then has to enter a user name and password, and follow on-screen instructions once the page is delivered. If the user wishes to purchase tickets from the WEB site, and wishes to transfer funds from an on-line banking service, the user must also look for and select the personal bank or account page to initiate a funds transfer for the tickets. Different user names and passwords may be required to access these other pages, and things get quite complicated.

~~{0006}~~ Although this preceding example is merely exemplary, it is generally known that much work related to finding WEB pages, logging in with passwords, and the like is required to successfully do business on the WEB.

[A service known to the inventor and described in the related case listed under the cross-reference to related documents section provides a WEB service that allows a user to store all of his password protected pages in one location such that browsing and garnering information from them is much simplified. A feature of the above service allows a user to program certain tasks into the system such that requested tasks are executed by an agent \(software\) based on user instruction. The service stores user password and log-in information and uses the information to log-in to the user's sites, thus enabling the user to navigate without having to manually input log-in or password codes to gain access to the links.](#)

[The above-described service uses a server to present a user-personalized application that may be displayed as an interactive home page that contains all of his listed sites \(hyperlinks\) for easy navigation. The application lists the user's URL's in the form of hyperlinks such that a user may](#)

click on a hyperlink and navigate to the page wherein login, if required, is automatic, and transparent to the user.

The application described above also includes a software agent that may be programmed to perform scheduled tasks for the user including returning specific summaries and updates about user-account pages. A search function is provided and adapted to cooperate with the software agent to search user-entered URL's for specific content if such pages are cached somewhere in their presentable form such as at the portal server, or on the client's machine.

In addition to the features described above, it is desirable that the software agent in conjunction with the search function be enabled to navigate to any URL or group of URL's, provided as input by a user or otherwise deemed appropriate by the service provider, for the purpose of providing summary information regarding updated content for each URL, which may be presented as an HTML information-page to the user.

~~[0007] What is clearly needed is an interactive Internet portal that will enable users to store their WEB pages, user names, and passwords, and that can accomplish pre-defined tasks such as navigation and interaction between WEB servers based on user pre-programming (user profiles). Such a system would greatly simplify on-line or network-based business transactions~~a method and apparatus that can independently navigate to user-supplied or known URL's, login with the appropriate password information at each URL (if required), and return requested summary information to a user in the form of a human and machine-readable HTML document. Such a system would provide an effective summarization service wherein important information may be presented to a user without requiring that the user invoke hyperlinks at his personal portal home page.

SUMMARY OF THE INVENTION

~~[0008] In a preferred embodiment of the present invention an Internet Portal is provided, comprising an Internet-connected server; and a portal software executing on the server. The portal, in response to a log-on by a user, presents a secure and personalized page for the user, the personalized page having, including a summary software agent. The Portal maintains a list of Internet destinations enabled by hyper-links, wherein, upon invocation of a hyperlink by the subscriber, the portal invokes a URL for the destination, and upon connection with the destination, transparently provides any required log-on information required for user access at the destination~~specific for a subscriber, and the summary software agent accesses the Internet destinations, retrieves information according to pre-programmed criteria, and summarizes the retrieved information for delivery to the subscriber.

~~[0009] The Portal server can be a part of an Internet server used for another purpose, and may be hosted therefore by such as an Internet service provider (ISP).~~

~~[0010] In some embodiments search functions are provided, and in the same or other embodiments, after a user invokes a hyperlink, during navigation time to the invoked destination, the Portal software accesses and displays one or more informative displays to the user. Informative displays may be one or more advertisements. Further, in some embodiments periodic summaries may be provided for accounts associated with destinations on the user's WEB page.~~

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