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TITLE

Method of and System for Dynamic Maintenance of OS User Profile

ABSTRACT

A Profile Maintenance Module within the operating system of a user machine monitors the behavior of a user and extracts information relevant to the user's interests and preferences. This information is used to update a profile of the user that is stored within the OS. This profile can be used by web sites to provide personalized content to the user.

1. BACKGROUND

Problem or Opportunity

The amount of information available on the internet can be overwhelming. When looking for information on the internet, users can be overwhelmed with irrelevant data. Some individual sites have attempted to address this problem by creating profiles on the site that allow users to filter information based on individual preferences. However, it can be tedious to create individual profiles for every site. A system is needed that provides a more efficient way to filter web page content based on user preferences.

Background Publications

Previous publications have attempted to address the problem of providing filtered web content based on user preferences. However, the previous publications have not addressed this issue from the operating system of a user machine.

US Patent Number 7523191 describes a "System and method for monitoring user interaction with web pages." In this invention, a module residing on a client machine monitors and sends data regarding the usage of certain applications to an online server. This invention does not involve a user profile stored within the operating system of the client.

US Patent Number 6904408 describes a system of monitoring physiological data to provide personalized web content. This invention involves monitoring the physiological

response of a user to online advertising or other content. The results are sent to an online server. This does not involve the creation of a local profile for the personalization of internet content.

2. SUMMARY OF INVENTION

Invention Summary

In the present invention, a Profile Maintenance Module within the operating system maintains a database of User Profile Data. The Profile Maintenance Module scans the browsing history and recently accessed local documents for information relating to the users preferences or interests. This information is saved as User Profile Data.

When accessing online content such as a search engine or a shopping site, the web site can request the User Profile Data from the user machine and use it to personalize the content or search results for the user.

Unique Concepts

The unique concept of the present invention is a module running in the operating system that monitors user behavior in order to develop and maintain a profile of user preferences and interests.

3. DESCRIPTION OF THE INVENTION

The User Machine is a computing device with network connectivity such as a desktop computer, laptop, or mobile device.

The OS is an operating system, such as Linux, residing on the User Machine and the Internet Server. The OS manages interactions between hardware, applications, and users.

The User Profile Data is a database of information about the user that can be used to filter information to conform to the preferences of the user. The User Profile Data could include information about age, gender, interests, spending habits or other information.

The Profile Maintenance Module is a module within the OS that monitors the behavior of the User and updates the User Profile Data accordingly. The Profile Maintenance Module uses internet Browsing History and the Recent Documents to extract personal information about the user and saves this information in the User Profile Data. The Profile Maintenance Module updates the User Profile Data at regular time intervals that may be configured by the user.

The Browsing History is the history of stored web pages maintained by the default web browser (not shown) on the User Machine.

The Recent Documents List is a list of recently accessed local files that is maintained by the OS.

The Internet Server is a server connected to the internet that hosts an HTML Web Page and a Database of information.

The HTML Web Page is a public web page that provides access to information in the Database. The HTML Web Page could be a search engine, a shopping site, a news site, or other web page.

The Database is a database of information stored on the Internet Server. The Database could contain an index of web pages, a collection of products, a collection of news content, or other information.

The Filtering Application is an application residing on the Internet Server that uses User Profile Data to filter the information in the Database such that the filtered information is particularly relevant to the user.

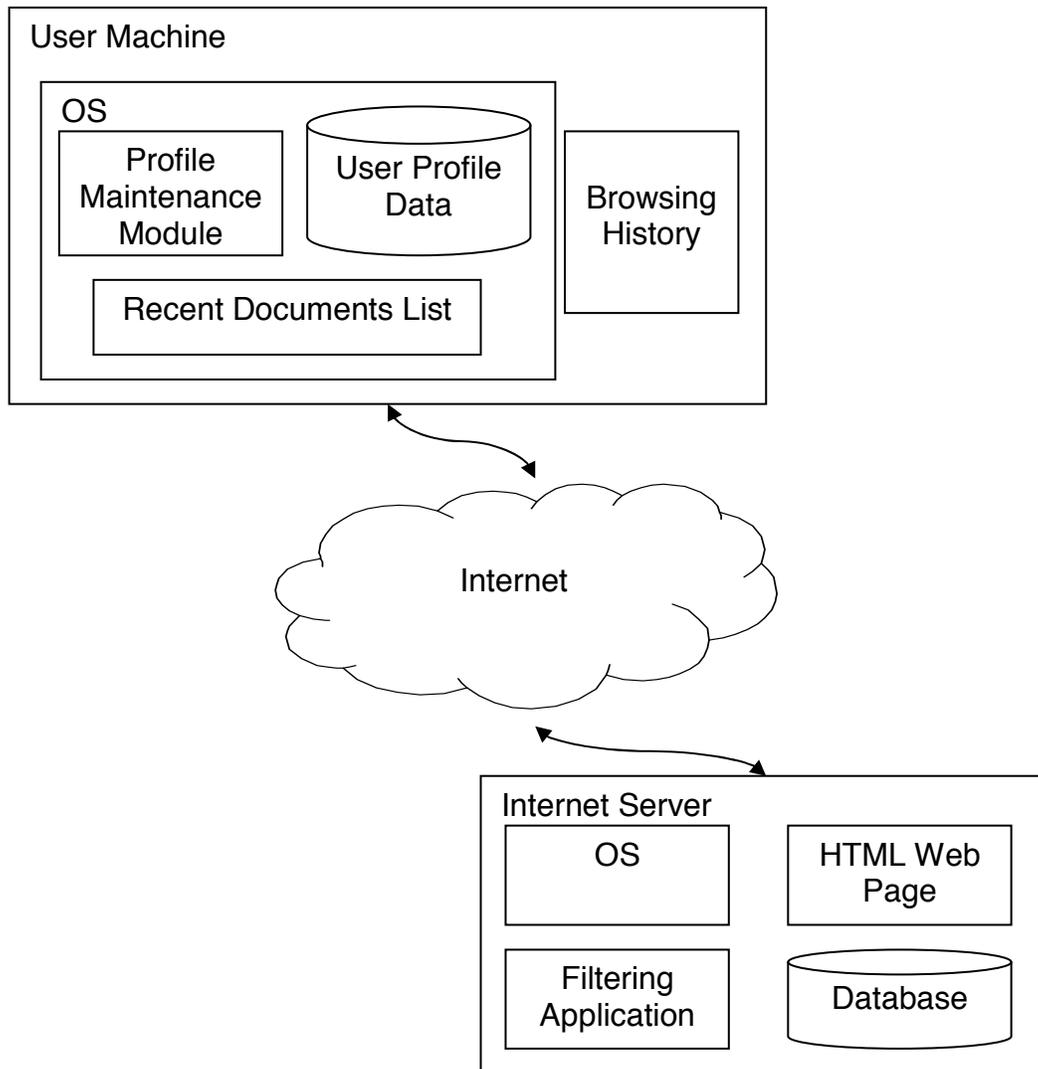


Figure 1. System for the Dynamic Maintenance of the OS User Profile.

Figure 2 depicts the method of operation of the Profile Maintenance Module.

In step 1, the Profile Maintenance Module is automatically activated by the OS after the passing of a predetermined period of time. The length of this period of time is configured by the user.

In step 2, the Profile Maintenance Module scans the Browsing History of the default web browser and extracts common themes and/or keywords relating to user preferences or interests.

In step 3, the Profile Maintenance Module scans the Recent Documents List and extracts common themes and/or keywords relating to user preferences or interests.

In step 4, the Profile Maintenance Module stores the themes and/or keywords extracted from the Browsing History and the Recent Documents List in the User Profile Data.

The method ends.

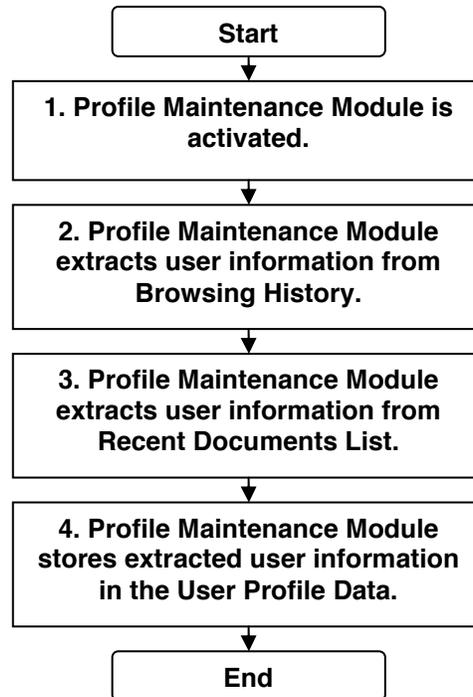


Figure 2. The method of operation of the Profile Maintenance Module.

Figure 3 depicts the method of filtering information using the OS User Profile.

In step 1, the User Machine accesses an HTML Web Page stored on the Internet Server. The Internet Server is capable of providing filtered information to the user. Code in the HTML Web Page identifies the capability of the Internet Server to utilize the User Profile Data.

In step 2, the User Machine sends the User Profile Data and a request to access information stored in the Database on the Internet Server. This request could be a search query, a request to view recommended products, a request for news articles, or any other information request.

In step 3, the Filtering Application gathers requested information, such as search results, from the Database.

In step 4, the Filtering Application ranks the information or results based on criteria such as, but not limited to, the number of occurrences of keywords stored in the User Profile Data.

In step 5, the Internet Server sends the top ranking information to the User Machine.

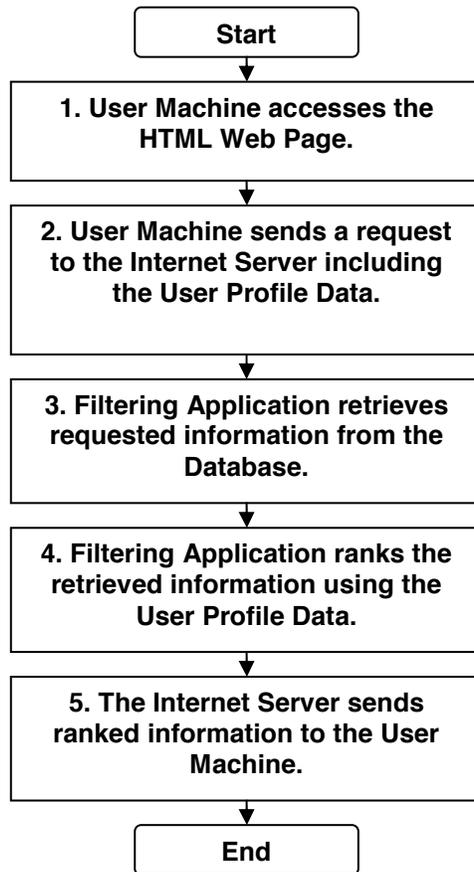


Figure 3. The method of filtering a request using the OS User Profile for Preference Based Filtering.