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BROWSING ACTIVITY SUPERVISION

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ABSTRACT

A supervision system generates a user interface that summarizes user's browsing trends based on user's browsing activity. The system monitors browsing activity of a user. The system further determines browsing trends of the user based on user's browsing activity for a predetermined time period. On determination of the browsing trends, the system generates the user interface that provides a summary of user's browsing trends for the pre-determined time period.

PROBLEM STATEMENT

Tools designed to supervise vulnerable users and ensure online safety are currently very limited as they focus on only providing browsing history to the managers for review. Requiring managers to review browsing history requires heavy-handed and impractical review of lists of uniform resource locators (URLs) representing browsing activity of a supervised user. These tools only allow the managers to review full browsing history in list format, regardless of what types of products exist within the URLs visited. Further, there is no visual differentiation between a visited website and a viewed video in the website. Hence, these tools fail to provide a comprehensive overview of the supervised user's browsing activity. Present day tools do not allow the managers to, in a single glance, easily understand what the supervised user is accessing online and how often. A method and system for generating a user interface that summarizes a supervised user's browsing trends based on the user's browsing activity is described.

SUPERVISION SYSTEM

The system and techniques described in this disclosure relate to a supervision system for generating a user interface that summarizes user's browsing trends based on user's browsing activity. The supervision system can be implemented for use in an Internet, an intranet, or another client and server environment. The supervision system can be program instructions implemented locally on a client device or implemented across a client device and server environment. The client device can be any electronic communication device, e.g., a laptop, mobile television, phone, computer, tablet, wearable, etc.

Fig. 1 illustrates an example method 100 for generating a user interface that summarizes user's browsing trends based on user's browsing activity. Method 100 can be performed by a system that generates a summary of browsing trends of a user based on user's browsing activities, e.g., the supervision system.

As shown in Fig. 1, the system monitors browsing activity of a user (block 110). Browsing activity can include surfing web pages, watching videos, downloading web content, accessing user's online accounts, listening to audio streams, or any other online activities. User's browsing activity can take place on an electronic device associated with the user, e.g., a laptop, mobile television, phone, computer, tablet, or wearable. The user can be a supervised user whose browsing activities are being monitored by a supervisor. For example, the supervisor may be the parent of a user who is a minor.

The system further determines user's browsing trends based on the user's browsing activity for a predetermined time period (block 120). The user's browsing trends refer to user's favorite online activities, e.g., watching a favorite video a number of times, spending a lot of

time on a favorite website or a favorite application. The system may analyze user's web browsing history to calculate number of times each website/application was visited, or amount of time spent on each website/application, etc. Based on the calculations, the system determines the favorite websites or applications used by the user, i.e., user's browsing trends. The user's browsing trends may vary over time, hence the system determines the user's browsing trends for predetermined time periods, e.g, on a daily, weekly, or monthly basis. The system may automatically set the predetermined time period or the supervisor can input the predetermined time period into the system via a settings menu. For example, the supervisor can monitor the favorite videos or websites surfed by the user every single day, in the evening, when the user signs-off from work.

On determination of the browsing trends, the system generates a user interface that summarizes the user's browsing trends (block 130). The user interface includes a summary of user's browsing trends for the pre-determined time period in a visual manner. In the user interface, key insights may be presented in the form of "cards" representing the user's browsing trends, e.g., the favorite website, the favorite video, and/or the favorite application. These cards include a brief summary of those activities. They include a generated screenshot of the website, video, or app at the time of the visit, the URL of the website, title of the video or application, and a link to that content so that the supervisor can review it in more detail.

The user interface presents the summary as a media-rich visualization of the user's browsing trends. The system can provide "push notification" cards in a summarized format to the supervisor via an existing ecosystem, e.g., e-mail, multimedia message, or any supervision application/website related to the system. This notification will link the supervisor to a

dashboard, where they can review both “push notification” cards (top priority) and “pull” cards (of interest, but not requiring immediate review). Most importantly, this page will also be visible to the supervised user, so they can review their own activity and understand what the supervisor sees.

Fig. 2 illustrates an example graphical user interface (GUI) of an implemented supervision system. In Fig. 2, a client device displays a GUI, which presents to a “User A” a web interface 200 of the supervision system. User A is a supervisor who supervises user 1 and user 2. The web link 200 provides the user A with a list of his supervised users, e.g., supervised user 1, and supervised user 2. In the GUI of Fig. 2, the system displays a user interface that summarizes browsing trends of the supervised user 2. Prior to displaying the user interface to the user A, the system determines the browsing trends of the supervised user 2 based on browsing activity of the supervised user 2, as described above. The browsing trends can include favorite online activities of the supervised user 2, e.g., watching videos, surfing websites, or using applications. The user interface of Fig. 2, displays a “Favorite Link” 210 and a “Favorite Application” 220 which the supervised user 2 has visited the most number of times in a pre-determined time period. The user interface further displays a screenshot of a “Favorite Website” 230 where the supervised user 2 has spent the most time in the pre-determined time period. The user interface also displays a screenshot of a “Favorite Video” 240 which the supervised user 2 has watched most number of times in the pre-determined time period.

The subject matter described in this disclosure can be implemented in software and/or hardware (for example, computers, circuits, or processors). The subject matter can be implemented on a single device or across multiple devices (for example, a client device and a

server device). Devices implementing the subject matter can be connected through a wired and/or wireless network. Such devices can receive inputs from a user (for example, from a mouse, keyboard, or touchscreen) and produce an output to a user (for example, through a display). Specific examples disclosed are provided for illustrative purposes and do not limit the scope of the disclosure.

DRAWINGS

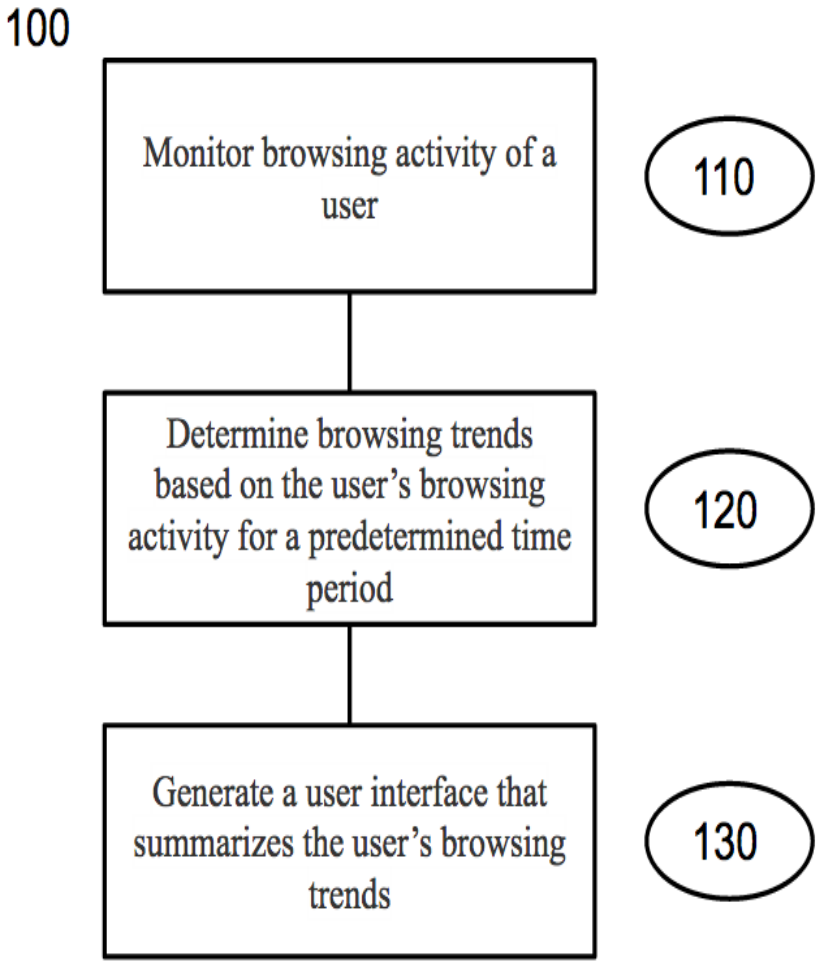

Fig. 1

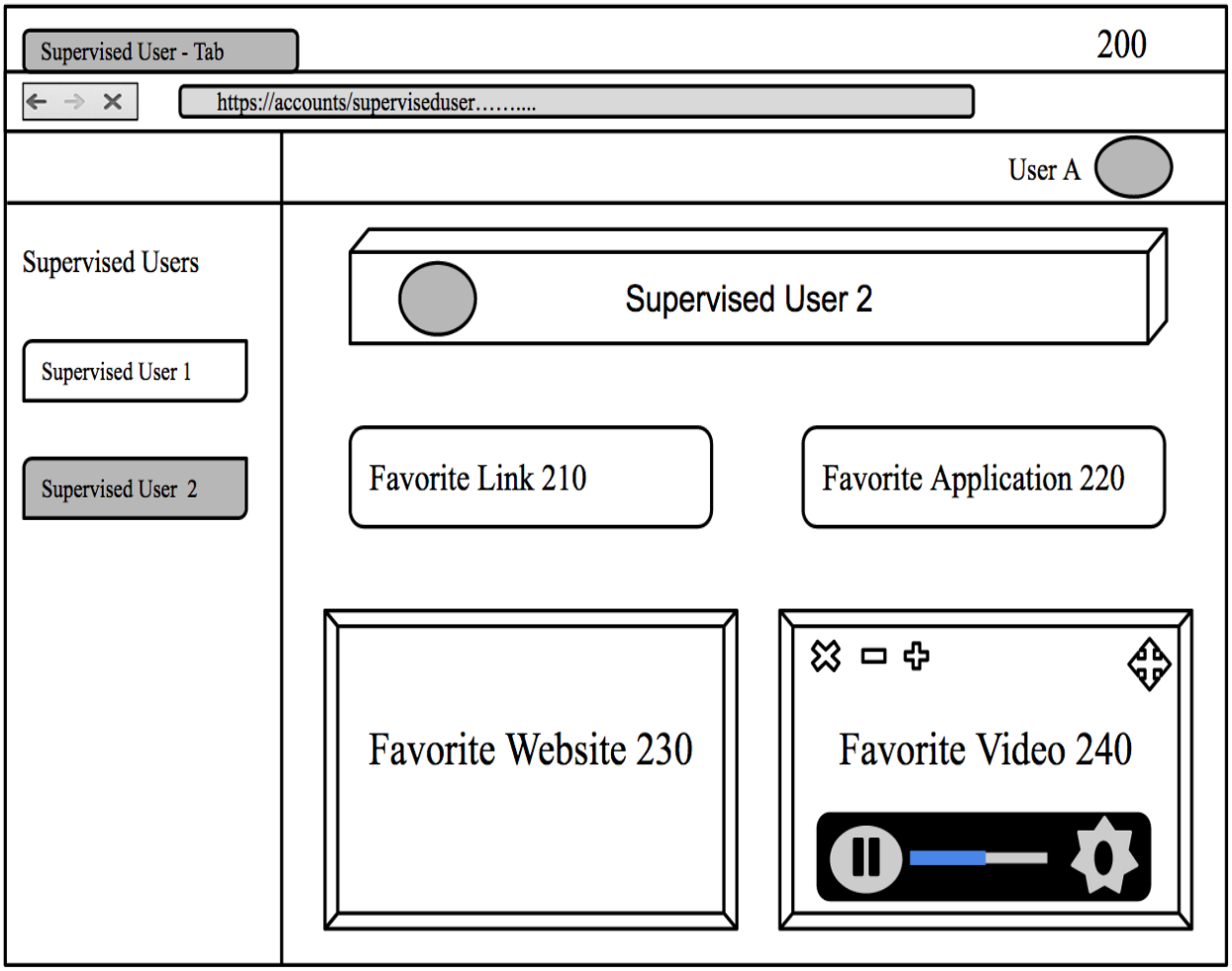
Supervised User - Tab
200
https://accounts/superviseduser……...
User A
Supervised Users
Supervised User 1
Supervised User 2
Supervised User 2
Favorite Link 210
Favorite Application 220
Favorite Website 230
Favorite Video 240

Fig. 2