

Web APIs: A Step towards Greater Mobility of User-Created Data across Social Networking Websites and Their Implications for Research in Information Behavior

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1. Data Held Hostage

As Internet users are joining more online communities such as Facebook and MySpace, they are also becoming more prolific content creators. But unfortunately, the task of managing and exchanging content between their various online social networking (SN) communities remains cumbersome and time consuming. This is primarily because most of websites “lock” users’ data on their servers and do not provide an effective/efficient data sharing and exchange protocols. As a result, most users have to rely on traditional approaches such as hyperlinks and copy & paste. However, such traditional approaches are inefficient and awkward. For example, with the hyperlink approach, users actually have to stop whatever they are doing and move to an external page. This interrupts users’ current task(s) and consequently reduces their productivity. Secondly, most online SN communities have restricted access, thus making it difficult if not impossible to use hyperlinks to refer to the user’s content therein. As for the copy & paste approach, it has its own limitations. It leads to the creation of multiple copies of the same materials which makes it harder to manage later on.

2. Web APIs and Web Mashups

A better way for users to integrate and exchange data across online SN communities is to use web APIs (Application Programming Interface) – a mechanism that allows a site to provide “back door” access to its content and services via a standardized machine-readable protocol. Any website can deploy web APIs to allow its users to integrate data from external sites and/or to export user-created data for use elsewhere.

To make web APIs more accessible to virtually anybody on the Internet with or without programming skills, a new generation of web tools is now available. These tools are commonly called *web mashup tools*. Some examples include Microsoft Popfly (<http://www.popfly.ms>), Yahoo! Pipes (<http://pipes.yahoo.com>), ProfileFly (<http://profilefly.com>). What makes web mashup tools unique is that they allow users to collect data from various sources easily and efficiently, then combine and present the received data in new and creative ways.

3. Changing Users’ Information Behavior

As these new technologies and techniques become more widely available, it will make user-created data even more

mobile. This will likely lead to some changes in users’ information behaviors. If this is proven to be true, it is bound to have important implications to the field of Human Information Behavior (HIB) research. Below are three areas in HIB that are most likely to be affected by the increasing adoption of web APIs and web mashups.

3.1. Selection of a ‘Home-base’ Community

Using web APIs, a user can now more easily 1) bring parts of his online identity from various sources together and integrate it into different SN websites, 2) manage his multiple personal profiles from one location and 3) maintain constant awareness of changes to his friends’ profiles on multiple social networks simultaneously. This in turn raises the following important questions. Will the increasing mobility of user-created data make users more or less loyal to any particular online social network? And how will this influence the type of factors users might use to select a ‘home-base’ community?

3.2. Managing Information Overload

Since web mashup tools aggregate information from many different sources that tend to be dynamic and continuously updated, the resulting information stream may be overwhelming to a user. This poses an interesting research question, how will users deal with the avalanche of information. For example, will users deal with the constant information updates as they arrive, leave them for later, or ignore them completely?

3.3. Collaboration and Peer Influence

Finally, various personal information management (PIM) activities, such as handling online videos on YouTube or searching for a book on Amazon, have traditionally been performed separately and on different websites. Web APIs are enabling these PIM activities to be carried out within a single SN site of the user’s choice. Consequently, this gives rise to two important questions: Will this new ability to bring various PIM tasks into a social environment encourage users to collaborate more on these tasks with their friends and colleagues? And to what extent and in what circumstances do online peers influence each other PIMs by influencing what new web APIs and web mashup tools each of them are using?