Social Media as Personal Informatics: Empowerment through Self-Reflection

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Abstract
This paper examines personal informatics in the context of online news reading and social media. We use the user profiles ("media fingerprints") of the online feature story service Scoopinion (www.scoopinion.org) as an empirical entry point to discussing how online behavioral tracking in new media can be used to empower users through self-reflection. We argue that there is potential to leverage the vast sets of data that online services collect and manage for the personal benefit of individuals who choose to engage with social media but often find it hard to follow and control what data about them are available and who has access to it.

Author Keywords
Social media, privacy, self-reflection, empowerment, news reading, quantified self, personal informatics, Scoopinion.

ACM Classification Keywords
H.5.m. Information interfaces and presentation (e.g., HCI): Miscellaneous.

General Terms
Human Factors

Introduction

Personal informatics is a class of systems that help people collect personal information to improve self-knowledge [1]. In this paper, we address social media, more specifically an online feature story service, as personal informatics. We call for a conversation about how the data that is being collected by service providers, sometimes with an understanding of social sharing, could be harnessed better to the use of those whom it concerns.

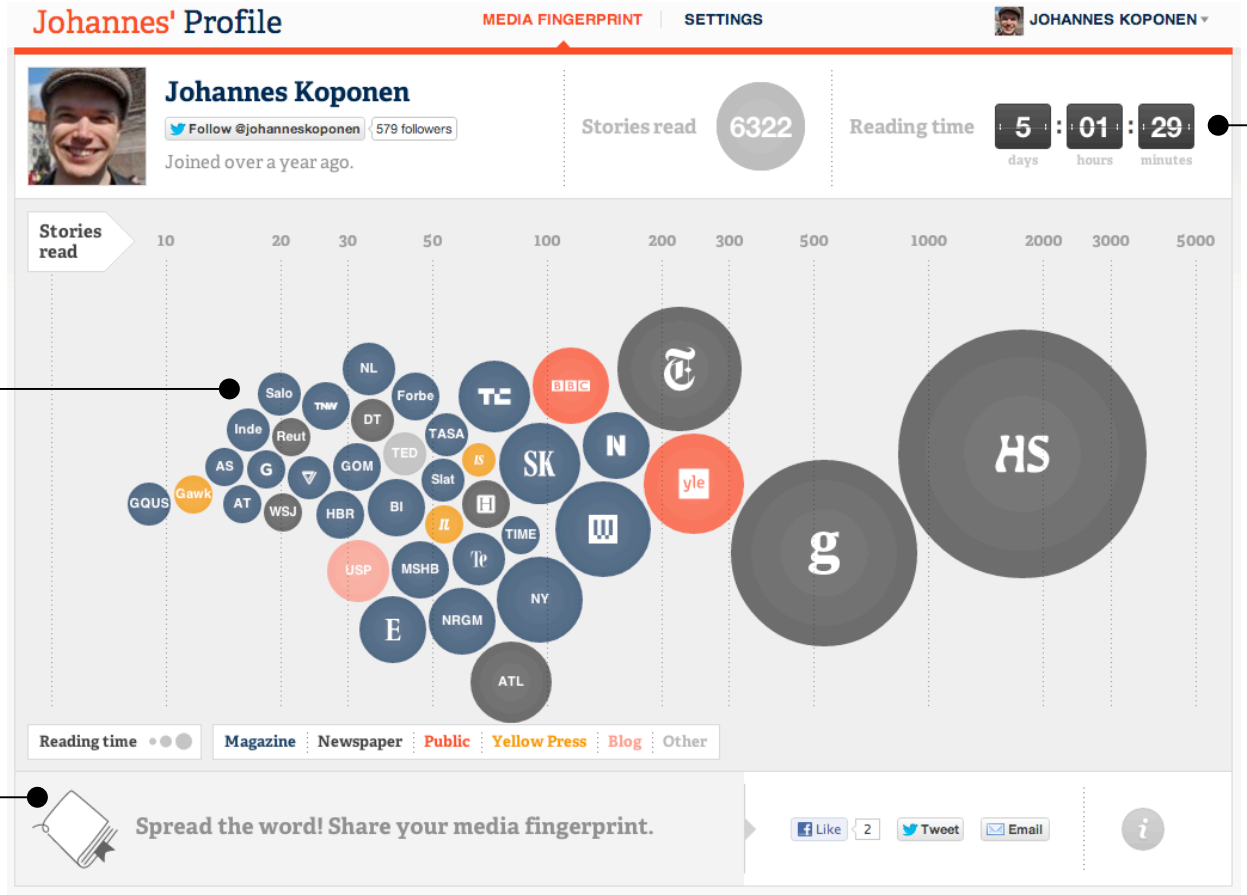
In our networked world, individuals broadcast information in multiple places that, when synthesized by curious onlookers, reveals much. As information is both produced and consumed in social media, surveillance becomes symmetrical in that "*watchers expect, and desire, to be watched*" [2]. While we often focus on "traditional" surveillance (by service providers and other organizations) and social surveillance in thinking about social media, it might be helpful to consider also self-surveillance and the ways in which social media could cater to people's curiosity concerning their own behavior. We may want to watch ourselves, using social media as a mirror of sorts. We argue that especially when it comes to behavioral information, seeing one's behavior in aggregate can be a source of helpful self-reflection and insight into both the behavior that is evidenced in the data – and the fact that such data exist and may be acted upon by others.

Case Study: Scoopinion

We leverage the online feature story service Scoopinion (www.scoopinion.com) as an empirical entry point to discussing personal informatics in the context of social media. Scoopinion is a web service that offers a novel approach to aggregating algorithmically online news stories and articles that are worth reading. Users install a browser add-on that tracks their reading behavior including scrolling patterns, reading speed, and read-through rates on a wide range of online news sites. Combining the community reading behavior, Scoopinion is able to constantly identify stories that are more engaging than others based on these behavioral metrics. Links to such stories are aggregated at the Scoopinion website and delivered to users as an email digest. The service uses the aggregated reading behavior data of the community to recommend stories that are engaging and immersive.

Scoopinion first started as a frictionless social sharing tool for news items. It then evolved into a system for anonymous crowd filtering of engaging long form stories. Recently, leveraging its extensive, industry-wide reading behavior dataset, the service has started offering its users reflective information about their reading behavior, providing each user a personal profile page that summarizes information of their online news reading (see Figure 1 for more details). Users can also download their reading data in a raw format for personal analyses.

We are currently analyzing a set of ten qualitative interviews with 25-to-34-year-old individuals (three females, seven males) who have used Scoopinion throughout its transformation from radically transparent social sharing to its current form as a recommender system. The interviews were conducted in the summer of 2012. They were recorded and transcribed for analysis purposes. The interviews addressed participants' Scoopinion use and media engagement practices holistically.



The chart that takes up most of the profile is **a visualization of the profile owner's reading behavior across different online media sites**. By hovering over a circle, users can check how many stories they have read on that site and how much time they have spent reading those stories.

Profiles are private by default and targeted primarily for personal use, but profile owners are provided with **tools that encourage sharing** their media fingerprints with others.

Aggregate statistics give the profile owner insight into how many news stories they read online and how much time they spent doing so.

Figure 1. A User's personal profile on Scoopinion is called a Media Fingerprint. The profile features information of the user's online reading behavior both as aggregated statistics (number of stories read, time used for reading them) as well as a visualization of how the user's reading is distributed between different types of white-listed media sites (magazines, newspapers, yellow press, blogs, etc.). The profile allows Scoopinion users to reflect on their personal reading practices, something traditionally non-quantified and ephemeral, as well as share and compare the statistics with others.

From Ephemeral Behavior to Visible Data

"*Well, I don't know why people want to know about their own behavior, I guess it helps in, like, reflecting on whether one is too focused on some things, like whether it might not be such a bad idea to read something else for a change.*"

The interview excerpt above illustrates an interest in looking at data about one's own behavior for insight that can help understand one's habits and, if deemed necessary, try and change them. Turning ephemeral behavior, such as online reading, into visible data that reveals the time that has been spent reading and the sites on which the reading has taken place, can help people to take a critical look at their reading practices and evaluate whether there is something they would like to change about them.

Scoopinion has made it possible for users of the service to download their reading data in a raw format. While this may be very helpful for the most active and motivated users, it is likely that many users will not go through the hurdles of data analysis on their own. The media fingerprint has been a roughly 30 times more popular way to take a look at one's data. Though more limited in the possibilities it provides, it is easy and effortless for profile owners to interact with it.

Conclusions and Open Questions

We vouch for further examination of how social media users can be empowered by providing them with access to their data, especially when it comes to records of their online behavior, such as reading in the case of Scoopinion and music listening in the case of Last.fm [3]. Important open questions that need to be addressed in mainstreaming personal informatics include, among others, what type of access is the right match for different types of users (raw data vs visualizations of aggregated data), what type of sharing mechanisms make most sense for users, and how to tackle the issues arising from shared use of devices and browsers (that can lead individual profiles to present data that has been produced by multiple people).

Workshop Contribution

We wish to contribute to the workshop a combination of social scientific perspective and practical experience gained in developing Scoopinion to better match the needs and wishes of its users. We believe that by connecting the ideas of personal informatics and the quantified self movement to the ongoing research and policy debates concerning social media and privacy can lead to mutually beneficial outcomes.

Acknowledgements

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