Vanity or Privacy? Social Media as a Facilitator of Privacy and Trust

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Abstract

 In this position paper, we argue that social media provides valuable support for the perception of one's self and others, and in doing so, supports privacy. In addition we suggest that engagement, which reflects a certain degree of trust, can be facilitated by social information. We support our arguments with results from a recent privacy survey and a study of social annotations in search.

Author Keywords

Social; vanity search; social search annotations; privacy; trust

ACM Classification Keywords

K.4.1.f Privacy

General Terms

Human Factors; Privacy; Security

Introduction

The abundance of communication that social media enables clearly can lead to privacy problems, often with severe personal consequences. Jobs have been lost, marriages ended and court cases won all because of unintended sharing of online social communication (e.g. [5, 7]).

This online social communication often comes with two

types of audiences. First, there may be a specific target for the communication (e.g. the owner of the Facebook wall on which a comment is left). In addition, there is often a broader audience who can observe the communication (e.g. in the case of a public Facebook wall). While this broader audience can lead to privacy mistakes (indeed it is essentially at the root of the privacy problems mentioned above), we argue it also leads to huge privacy advantages by facilitating perception, both in terms of understanding of one's online self, particularly as driven by the inputs of others, and self-representation.

The former involves understanding how others perceive you, and is clearly a privacy win. External perception is key to managing reputation and trust. Understanding how others perceive themselves (self-representation) is also important to privacy, but less directly. Visibility into someone's self-perception enables another individual to interact with them with far less privacy risk. If Alice knows something about Bob's preferences, habits and overall persona, she is far less likely to approach Bob under the mistaken impression of a shared interest or hobby, compromising her own privacy in the process.

This same visibility into social views/preferences can also impact trust, a concept closely related to privacy [2]. If a user has an affinity with those in an online community, they will likely feel more trusting of the community [3, 4, 6]. We argue here that social media can facilitate trust and engagement by reflecting the views of the community in aggregate.

In this short paper, we present 2 examples of how social media enhances both aspects of perception, and in doing so enables better privacy. In particular, we present survey evidence that "vanity" searches are associated with an important privacy need. We also present evidence compatible with the conjecture that social annotations in search support privacy by enabling better self-representation and thus more privacy-aware sharing. While these examples offer no judgment on whether social media is good for privacy in any absolute sense, they do support our contention that it is possible to design social media systems that are engaging and supportive of privacy and trust.

Vanity searches also serve privacy

Vanity searching (or "egosurfing" [1]) is the popular practice of searching for one's own name using a search engine. As the name suggests, it is generally viewed as a self-esteem promoting activity; an easy way to get a sense of what others think of you and what you have done (at least those activities with web representation). Social media has made the results even more rich with social networking profiles and posts potentially appearing along with self-maintained blogs and web pages and public records of transactions.

The entertainment aspect of vanity searches is clear, yet they are also a valuable tool for understanding online reputation. While the increased usage of search personalization makes it less clear what the results will be when a particular person searches for an individual, a comprehensive review of the results returned for a given name provides a pretty good sense of the individual's online representation. Indeed, results from a recent survey we conducted indicate that vanity searches are often closely associated with reputation

concern. This survey was conducted with 200 users randomly selected from a broad pool of paid study participants, the majority of whom have college degrees, are within 24-45 years of age and are slightly more likely to be male than female.
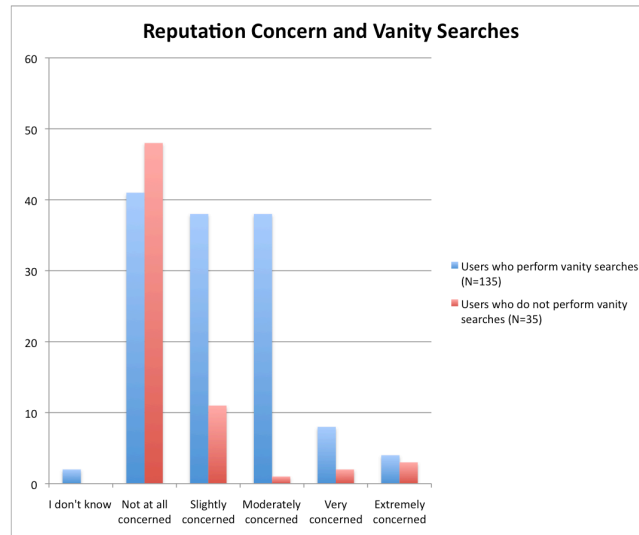

Figure 1: Reported reputation concerns and reported vanity search behavior. Almost 50% of the users who reported they did not vanity search, were not at all concerned about online reputation.

Social Search Annotations and Trust

The Google and Bing search engines now support the annotation of search results with endorsements from the viewer's contacts. In Google's case, the endorsements are in the form of "+1"s, and in Bing's case they are Facebook "like"s. These endorsements may help the viewer to prioritize the search results. We also propose that these endorsements may help build trust between the viewer and the endorser, since they provide information about the endorsers' preferences and interests. Indeed, these annotations may serve as a form of asynchronous, unilateral, social support that can help the viewer reduce privacy risk and transition to a more active member of an online social community.

In support of these conjectures we present some results from studies of 615 users drawn at random from the same population as the survey of section 2. In each study, each participant received the title, snippet and url for each of several articles (seven, eight, nine and five in the four studies, respectively). The articles were all news articles and had appeared within the last couple of days prior to each study. The articles were taken from well-known online news venues such The Wall Street Journal, The New York Times and CNN.com.

Each study consisted of three conditions that differed according to the type of annotation used. In particular, each participant received an article title, article snippet and either a Facebook like count annotation a qualitative popularity annotation (e.g. "this article is one of the most popular on nytimes.com") or no annotation, depending on the condition. We emphasize that the studies put the annotation and the article essentially on equal footing in terms of visual emphasis, in contrast to most publisher sites, where typically the article receives greater emphasis.

The participants were asked about their interest in sharing the articles (among other questions). There

were an average of 95.33 users in each study condition, with very little overlap between users across studies.

We found significant increases in engagement when annotations of either type were present. In particular, an analysis of variance (ANOVA), conditioning on annotation type, found significance at the .05 level for article and topic interest, and significance at the .01 level for bookmarking interest (no significance for sharing). We summarize these results in Table 1.

Scale = 1-5 (5 is most interest)	Facebook Annotations (e.g. "this article has been liked on Facebook 643 times")	No Annotation	Qualitative Popularity Annotations (e.g. this article is one of the most viewed on CNN online)
Article Interest	3.22	3.21	3.28
Topic Interest	3.44	3.4	3.45
Bookmarking Interest	2.19	2.09	2.15
Sharing Interest	2.39	2.32	2.35

Table 1: Interest responses over all users

The 307 users with low sharing habits (defined here as those who share online content less than once a week) reported a preference for the popularity annotations over the Facebook annotations that is weakly significant (p < .1) in that their average interest was highest for articles with popularity annotations (3.32), versus Facebook annotations (3.23) and no annotations (3.17). We summarize the interest ratings of low sharers in Figure 2.
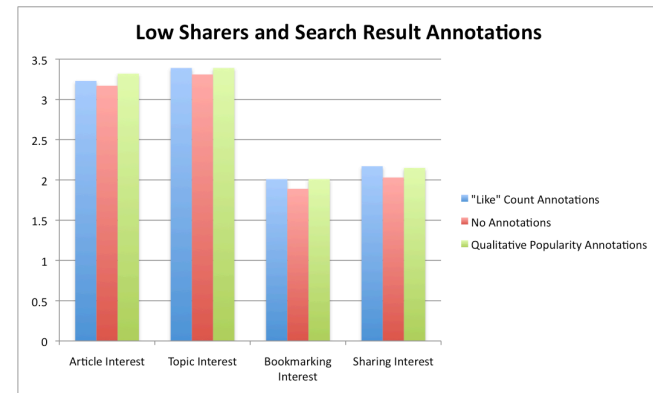

Figure 2: Users who share less than once a week and average article interest, topic interest, bookmarking interest and sharing interest, by annotation type.

While clearly more research is needed to fully understand the impact of annotations on trust an engagement (particularly research that more closely matches the settings of today's online services) these results suggest that social information, *even in aggregate*, can encourage engagement which is likely associated with trust.

Conclusion

We have argued that social media both facilitates reputation monitoring and trust building, both of which are compelling for privacy. A core challenge in realizing

these privacy benefits without compromising privacy in other respects is awareness. The content an individual provides that drives their self-representation must be provided with their awareness and understanding of how the aggregation of data contributes as a whole to their online representation. This is particularly challenging for personalized online services with which an individual may not immediately understand the perspective of others viewing them through personalized services.

References

1. G. Branwyn. Jargon Watch. Wired Magazine, March 2005.
2. X. Luo. Trust production and privacy concerns on the Internet: A framework based on relationship marketing and social exchange theory. Industrial Marketing Management, 2002.
3. C. Ridings, D. Gefen and B. Arinze. Psychological Barriers: Lurker and Poster Motivation and Behavior in Online Communities. Communications of the Association for Information Systems, Volume 18, 2006.
4. C. Ridings, D. Gefen and B. Arinze. Some antecedents and effects of trust in virtual communities. Journal of Strategic Information Systems 11 (2002) 271–295.
5. Divorces blamed on Facebook. The Sun (UK). December 21, 2009.
6. M. Smith, C. Giraud-Carrier, N. Purser. Implicit affinity networks and social capital. Journal of Information Technology and Management, September, 2009.
7. C. Smith and C. Kanalley. Fired over Facebook: 13 Posts That Got People CANNED. Huffington Post. July