The Impact of Source Credibility on Young Adults’ Health Information Activities on Facebook: Preliminary Findings

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ABSTRACT
Within the context of SNSs, particularly Facebook, this study aims to understand how young adults perceive the credibility of various information sources, how their information activities differ by those information sources, and how young adults’ perception of credibility impacts their information activities. The results of an online survey demonstrated that young adults consider medical/health organizations and government agencies the most credible and friends the least credible for health issues. As for information activities, although young adults’ intents to read postings were significantly greater than those to post questions or answers, intents of information activities were generally lower than neutral. Nevertheless, it was found that the more young adults trust information sources, the more likely they are to be involved in information activities. The results showed the potential of Facebook as a good information channel, especially for health professionals and governmental organizations.

Keywords
Credibility, information activity, health information behavior, young adults, social networking site (SNS), Facebook.

INTRODUCTION
Young adults find health information easily from the Web. While the Web has been recognized as a source of rich health information, its potential threat of misinformation raised concerns about the online dissemination of health information, especially since having wrong information could mislead users into making false decisions on health. Previous research has found that, although the Internet and social networking sites (SNSs) were common sources for health information among college students, they were not perceived as credible sources (Kwan et al., 2010). These studies showed that while users have doubts about credibility, they are using the Web as a source of health information due to availability and convenience. The impact of source credibility on users’ information behavior has been considered important especially in the Web environment (Metzger, 2007), and it has been found that users believe the quality of information when the source has a good reputation and fame (Rieh, 2002). Thus, the credibility of an information source is a significant factor for users’ decision-making processes and, at the same time, their future perception of the source as an information provider (Dutta-Bergman, 2004).

As users’ preference for having easy access to health information has caused an increase in traffic on the Web, health information providers have perceived the Web as an important tool to disseminate health information and communicate with users. Moreover, the development of Web 2.0 technology has influenced users’ health information activities by providing features that allow users to comment and applications that display and visualize complicated health data (Hardey, 2008). SNS in particular has become an important communication tool in public health. Research has reported that 60% of state public health departments are using at least one SNS application and uploading one post per day on average (Thackeray, Neiger, Smith, & Wagenen, 2012).

Among various types of SNSs, Facebook has been widely used by young adults. Young adults use Facebook for their everyday life information seeking, including health-related issues. Pempek, Yermolayeva, and Calvert (2009) reported that college students use Facebook for about 30 minutes per day. Research has recognized the great potential of Facebook for disseminating health-related information to young adults (Moreno et al., 2011).

However, few studies have examined what young adults’ perception is about the credibility of certain information sources on Facebook regarding health-related information and how the perception of credibility impacts their information activities on Facebook. In this study, information activities are defined as actions people take to fill gaps between needs and solutions in problematic situations of everyday life, which include search and retrieval, browsing, monitoring, unfolding, information

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OBJECTIVES
This study aims to examine young adults' health information activities on Facebook, specifically focusing on changes in information activities depending on the types of information sources and their credibility. Based on the results from previous studies which demonstrated that credibility is perceived differently for information sources (Flanagin & Metzger, 2007; Kwan et al., 2010), we identified seven categories of major health information sources on Facebook, drawn from surveys conducted by the American College Health Association-National College Health Assessment (ACHA-NCHA, http://www.achancha.org/). This study seeks to answer the following research questions:
1. What are young adults’ perceptions of credibility on health information sources on a social networking site?
2. What information activities do young adults do with health information sources on a social networking site?
3. How does young adults’ perception of credibility on health information sources influence their information activities on a social networking site?

The findings of this study will help provide insights about how young adults’ credibility of information sources influences their health information activities on social networking sites.

METHODS
An online survey was conducted of undergraduate and graduate students at an urban private university who are between the ages of 18 and 29 and use Facebook. The link to the online survey was distributed with a recruitment message to multiple mailing lists of schools, departments, campus residents, and student organizations. The responses were collected for a month-long period between February 27 and March 27, 2013. After filtering the collected responses by completeness and participation criteria, we analyzed 200 responses for our preliminary findings.

The survey questions were designed to pertain to two specific health topics: sexual transmitted diseases (STDs) and allergies. For each health topic, the survey asked the respondents to rate the levels of credibility of seven information source categories, drawn from ACHA-NCHA surveys, which were identified to be active information disseminators on social networking sites. They are medical/health professionals, medical/health organizations, government agencies, broadcasting & media, friends, family members, and patients & caregivers. We also asked them to identify their intentions for information activities on Facebook. Users’ information activities on Facebook are identified mainly as reading posts, posting questions, and posting answers. We relied on measures of respondents’ intentions for information activities to predict their information activities on SNSs, as suggested in Fishbein and Ajzen’s (1975) study that considered behavioral intentions as predictors of actual behaviors. It has been used in behavioral research with various settings including SNSs (e.g., Baker & White, 2010). All respondents were asked to rate their answers on a 5-Likert scale, 1 being most unlikely through 5 being most likely.

FINDINGS
We conducted one-way ANOVA tests to see the differences in credibility and information activities among information sources. There were significant differences in credibility and reading activity among information sources, F(6, 1393)=25.318, p<.001, η²=.098 and F(6, 1393)=4.403, p<.001, η²=.019, respectively (Table 1). There were no significant differences in posting activities (posting questions and answers) among information sources (Table 1). When information activities within each information source were examined, it was found that users are significantly more likely to read posts on Facebook pages of all seven information sources than to post questions or answers. There were no significant differences between posting activities on Facebook pages of all information sources.

We conducted t-test to statistically compare the mean difference among health information sources in credibility and information activities. The credibility levels among information sources significantly varied except between medical/health organizations and government agencies, and between family members, and patients & caregivers (Tables 1 and 2-a). Users tended to mark the credibility of

<table>
<thead>
<tr>
<th>Information sources</th>
<th>Credibility</th>
<th>Read posts</th>
<th>Post questions</th>
<th>Post answers</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Medical/health professionals</td>
<td>3.12 (0.98)</td>
<td>2.73 (1.12)</td>
<td>2.01 (0.87)</td>
<td>1.98 (0.92)</td>
</tr>
<tr>
<td>2. Medical/health organizations</td>
<td>3.33 (1.03)</td>
<td>2.79 (1.11)</td>
<td>2.06 (0.90)</td>
<td>1.99 (0.93)</td>
</tr>
<tr>
<td>3. Government agencies</td>
<td>3.32 (1.02)</td>
<td>2.72 (1.14)</td>
<td>1.98 (0.87)</td>
<td>1.95 (0.91)</td>
</tr>
<tr>
<td>4. Broadcasting &amp; media</td>
<td>2.65 (0.96)</td>
<td>2.40 (1.08)</td>
<td>1.82 (0.80)</td>
<td>1.80 (0.86)</td>
</tr>
<tr>
<td>5. Friends</td>
<td>2.43 (0.84)</td>
<td>2.47 (1.08)</td>
<td>1.94 (0.88)</td>
<td>1.96 (0.94)</td>
</tr>
<tr>
<td>6. Family members</td>
<td>2.87 (0.89)</td>
<td>2.64 (1.10)</td>
<td>2.08 (0.94)</td>
<td>2.10 (0.97)</td>
</tr>
<tr>
<td>7. Patients &amp; caregivers</td>
<td>2.86 (0.94)</td>
<td>2.42 (1.04)</td>
<td>1.94 (0.88)</td>
<td>1.91 (0.91)</td>
</tr>
<tr>
<td>Average</td>
<td>2.94 (1.00)</td>
<td>2.60 (1.10)</td>
<td>1.97 (0.89)</td>
<td>1.95 (0.92)</td>
</tr>
</tbody>
</table>

Table 1. Means and standard deviations of the average credibility and information activities among information sources

1 = most unlikely, 2 = unlikely, 3 = neutral, 4 = likely, 5 = most likely
When it comes to information activities, regardless of information sources, users tended to mark their intent to read postings between unlikely and neutral. Nevertheless, they showed significantly higher intention to read postings related to health information provided by information sources such as medical/health professionals, medical/health organizations, government agencies, and family members than broadcasting & media, friends, and patients & caregivers (Tables 1 and 2-b). The results showed that users were unlikely to post questions on Facebook pages of government agencies, broadcasting & media, friends, and patient & caregivers. Instead, they showed higher intent to post health-related questions on Facebook pages of family members and medical/health organizations (Tables 1 and 2-c). As to posting activities, it is interesting to note that users had significantly lower intention to post questions or answers on Facebook pages of broadcasting & media than the other information sources. On the contrary, they showed significantly higher intent to post health-related answers on Facebook pages of family members than those of government agencies, broadcasting & media, friends, and patients & caregivers (Tables 1 and 2-d). From the results, it is noteworthy that although users rated the credibility of medical/health professionals, medical/health organizations, and government agencies positively, their intention to read or post health-related information on Facebook was less than neutral.

We examined the relationships between the credibility of information sources and information activities with regression tests (Table 3). Overall, the credibility of information sources explained a significant proportion of variance in reading activity, \( R^2 = 0.509, F(1)=205.454, p<.001 \). Although smaller proportion of variance was explained, the credibility of information sources significantly explained posting activities, \( R^2 = 0.170, F(1)=40.416, p<.001 \) for posting questions and \( R^2 = 0.166, F(1)=39.423, p<.001 \) for posting answers. In general, reading activity was explained from 39% up to 52% by the credibility of information sources, whereas only less than 28% and 27.1% were explained for posting questions and answers, respectively.
DISCUSSION AND CONCLUSION
This study aims to identify young adults’ perceptions of credibility on health information sources and their impact on health information activities on Facebook. The findings provide insight of how users decide to behave based on their judgment on information providers.

Facebook and general online health resources: It is worthwhile to compare the findings with what has been discussed in previous studies, that is, although users perceived online health information as unreliable sources, they still tended to access them actively to find health information (Kwan et al., 2010). However, with its page feature, users can identify the source of information on Facebook more easily than on other web pages, and this seems to help users make decisions on information activities differently by their perception of credibility on information sources.

Facebook and in-person resources as health information source: Previous studies have indicated that young adults tend to use the Internet, parents, and friends as major health information sources, although their believability on them as health information sources was very low (Kwan et al., 2010). Similarly, the credibility of family members and friends stays low on Facebook; however, the intents for information activities become higher on family members pages, whereas the intents for information activities with friends stayed low. Current study does not provide explanations for this difference, however opens possible future investigation to understand youth’s health information activities on SNSs.

Health information on Facebook: The results presented that users trust health information they find mainly based on the expertise of the information sources. Users also tend to take part in passive information activities only, i.e. reading disseminated health information, although SNSs provide ways for active information activities such as posting questions and answers. This is understandable as health and medical issues require precise and professional knowledge, and are also very sensitive and private (Bansal, Zahedi, & Gefen, 2010).

This study contributed to relating the impact of credibility of health information sources with young adult users’ information activities in a SNS setting. This study demonstrated the potential of Facebook as a good health information source for professional and governmental organizations, as they were already perceived as credible providers of valuable health information. We also identified positive and significant relationships among credibility and health information activities. Future research can be designed by including other factors such as additional social networking features, e.g. “like” and “share” on Facebook, and level of users’ familiarity with information sources out of the SNS context, which can promote users’ health information activities.

REFERENCES