Why Students Share Misinformation on Social Media: Motivation, Gender, and Study-level Differences

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A B S T R A C T

The increasing use of social media for information sharing has elevated the need for information literacy (IL) education to prepare students to be effective information creators and communicators. One concern is that students sometimes indiscriminately forward misinformation. Understanding the reasons behind misinformation sharing would help the development of IL intervention strategies. Guided by the Uses and Gratifications approach and rumor research, undergraduate and graduate students in Singapore were surveyed on why they share misinformation on social media. Gender and study-level differences were investigated. Over 60% of respondents had shared misinformation. The top reasons were related to the information’s perceived characteristics, as well as self-expression and socializing. Accuracy and authoritativeness did not rank highly. Women had a higher prevalence of sharing and intention to share misinformation. Undergraduate and graduate students differed in their reasons for sharing misinformation. The former share (and intend to share) more misinformation than the latter, but the difference was not statistically significant. Because many of the reasons cited were social in nature, IL training should address the social motivations propelling such behavior. Social media systems may also develop features that encourage users to flag debunked postings and allow a correction to be displayed alongside the misinformation.

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INTRODUCTION

The rise of social media has not only changed how people stay connected, but also brought about considerable opportunities and challenges in students’ information behavior. The changing information horizon and shifting information behavior patterns have implications for information literacy (IL) education. College students are particularly active users of various social media platforms (Duggan, Ellison, Lampe, Lenhart, & Madden, 2015). They use social media for both academic and everyday life information seeking (Head & Eisenberg, 2011; Kim, Sin, & Yoo-Lee, 2014; Shao, 2009). While library and information science (LIS) professionals recognize the collaborative information seeking potential of social media, they are also cognizant of the varying quality of social media information. Given the ease with which information is posted and shared, misinformation—defined as information that has been shown to be inaccurate (Karlova & Fisher, 2013)—can circulate on social media quickly and widely (Mintz, 2012b). Misinformation can cause suspicion and fear among the public. It can also have harmful effects on individuals’ well-being (Ferrara, 2015). There is, therefore, a pressing need to prepare students to be proficient social media users who are careful and responsible when sharing information on social media.

The efforts to develop an IL program suitable for the new information environment are multi-pronged. These include reexamining the scope and focus of IL (e.g., critical IL, IL 2.0, and meta-literacy), developing standards and best practices, and conducting empirical investigations on students’ social media information behavior. In terms of the last category, most studies have focused on perception and use of social media (e.g., Kim, Sin, & Tsai, 2014; Lim, 2009; Morris, Tewan, & Fanovich, 2010; Zhang, 2012), as well as on the criteria and strategies used in evaluating the credibility of social media information (e.g., Kim & Oh, 2009; Kim & Sin, 2014a; Lim, 2013; Walsh, 2010). Extant studies are invaluable in shedding light on students as consumers of social media information. There is, however, a dearth of research on students as information sharers. While there are malevolent misinformation-spreaders on social media, misinformation would not have gone so viral without the participation of regular social media users (i.e., those who do not have malicious intent). Many regular users unwittingly propel the spread of misinformation when they undiscerningly forward misinformation to their own social networks (Ratkiewicz et al, 2010). Some of this misinformation sharing could be prevented. Different from rumor, which is defined as information that is unverifiable at the moment (DiFonzo & Bordia, 2007), misinformation is inaccurate information that has already been refuted. Thus, users could conceivably take steps to discover the information to be inaccurate. Currently, the extent to which students...
share misinformation with their online friends is unclear; if they do share misinformation, what motivates them to do so is also unclear.

RESEARCH QUESTIONS AND IMPLICATIONS

In light of the research gap, the main objectives of this exploratory study are to understand the characteristics of students who share misinformation on social media and their reasons for doing so. The goals are to provide insights for the development of IL intervention strategies on reducing misinformation sharing among students, as well as to provide a basis for the development of further large-scale research on this topic. The study explores two main research questions (RQ).

- **RQ1a**: What are students' perceptions of, and experiences with, misinformation sharing on social media?
- **RQ1b**: Are there differences in their perceptions and experiences by (i) gender and (ii) different levels of higher education (hereafter, study-level differences)?
- **RQ2a**: What are the reasons behind their misinformation sharing on social media?
- **RQ2b**: Are there differences in their reasons by (i) gender and (ii) study-level?

By examining the reasons behind students’ social media misinformation sharing, a hitherto unexplored area, this study’s findings will contribute to IL education, and to IL and information behavior literature, in three ways. First, the study goes beyond analyzing students’ use of traditional scholarly and web resources to examine their use of social media—an increasingly popular source of information. Second, the study investigates students as information sharers rather than as mere information consumers. Lastly, the study moves beyond cognitive factors to include affective reasons for students’ information behavior. With greater understanding of the motivations behind students’ misinformation sharing and the potential individual factors affecting such behavior, IL educators can develop pertinent strategies to prepare students to be responsible users of social media.

LITERATURE REVIEW

SOCIAL MEDIA AND INFORMATION LITERACY EDUCATION

Social media is “a group of Internet-based applications that build on the ideological and technological foundations of Web 2.0, and that allow the creation and exchange of User Generated Content” (Kaplan & Haenlein, 2010, p. 60). These social media applications include collaborative projects, blogs, content communities, social networking sites, virtual game worlds, and virtual social worlds (Kaplan & Haenlein, 2010). A key aspect of social media is that it lets users communicate, share information, and collaborate (Anttiroiko & Savolainen, 2011).

The potential for social media to play a role in collaborative information seeking and social change is notable (Bertot, Jaeger, & Grimes, 2010; Shah, 2012). At the same time, inaccurate information is rampant on social media (Mintz, 2012b). Given that students are active social media users (Duggan et al., 2015), how they use this medium (where information is of varying quality) is an area of concern. Research often shows that people in general, and students in particular, are not particularly diligent in their information seeking (Connaway, Dickey, & Radford, 2011; Kim & Sin, 2011). To illustrate, a survey on students’ evaluation of social media information, almost 60% of respondents reported that they never verified if sources were cited properly in the social networking site (SNS) messages they received (Kim et al., 2014b). Even in situations where students do conduct a credibility assessment, their evaluative strategies are faulty at times. For example, students sometimes use ineffective peripheral cues (e.g., a site’s design or the nicknames of a Wikipedia article’s editors) to evaluate the credibility of related social media information (Kim & Sin, 2014b; Lim & Simon, 2011; Yaari, Baruchon-Arib, & Bar-Ilan, 2011).

Cognizant of the changing information landscape, there has been some discussion of broadening the scope of IL to cover non-academic information seeking and the use of social media (Farkas, 2011; Spiranec & Zoric, 2010). For instance, IL educators are preparing students to engage effectively with information in a collaborative environment. What is more, some libraries have started to develop guidelines and resources for the evaluation and use of social media information (Bridges, 2012; Mitран, 2011; Witek & Grettano, 2012). Problematic actions such as students’ sharing of misinformation on social media are an area that IL training has the potential to help tackle.

REASONS BEHIND MISINFORMATION SHARING ON SOCIAL MEDIA

MISINFORMATION SHARING ON SOCIAL MEDIA

There are notable incidents of crisis-related misinformation sharing on social media. Examples include misinformation surrounding Ebola (Anagnostopoulos et al., 2014; Oyeyemi, Gabarron, & Wynn, 2014) and the 2011 riots in the United Kingdom (Guardian Interactive team, Procter, Vis, & Voss, 2011). Other misinformation may take the form of daily life advice that appears on social media sites repeatedly over a long period of time (Frost, 2002). Notably, inaccurate messages often continue to go viral even after being debunked, whereas the correct information does not receive as much attention (Friggeri, Adamic, Eckles, & Cheng, 2014; Oyeyemi et al., 2014). Indeed, catchiness—rather than truthfulness—often drives information (and misinformation) diffusion on social media (Ratkiewicz et al., 2010).

Several characteristics of social media also may exacerbate the spread of misinformation. First, unlike traditional media, social media lacks rigorous quality control mechanisms. Furthermore, social media applications make it easy to disseminate information, including misinformation. One can forward messages to many receivers quite effortlessly; it is often as simple as a mouse click. Misinformation on social media can thus quickly reach many individuals, which can cause confusion and unnecessary anxiety among the public (Budak, Agrawal, & Abbadi, 2011). To help curb the spread of misinformation, it is important to understand the motivations driving the sharing of misinformation on social media.

MOTIVATION AND SOCIAL MEDIA USE: THE USES AND GRATIFICATIONS APPROACH

It remains unclear what motivates regular users to share misinformation on social media. However, factors that motivate social media usage in general have been investigated in a number of studies. While these usage studies have a different focus than the current research, they can provide insights on potential motivational factors for misinformation sharing on social media. Previous studies have investigated the motivations for using SNS and photo sharing sites (Dunne, Lawlor, & Rowley, 2010; Kim, Kim, & Nam, 2010; Nov, Naaman, & Ye, 2009). The reasons behind news sharing on social media (Lee & Ma, 2012) and information sharing on mobile gaming sites (Lee, Goh, Chua, & Ang, 2010) were also studied. Oh and Syn (2015) investigated and compared the factors motivating users to share information on different social media platforms (Facebook, Twitter, Delicious, YouTube, and Flickr). Many of these studies on individual motivations are based on the well-recognized Uses and Gratifications (U&G) approach (Lee & Ma, 2012, p. 332; Park, Kee, & Valenzuela, 2009; Ruggiero, 2000; Shao, 2009), and individual motivations are often found to be salient. For example, a study about Facebook use found that an individual’s motivation is significantly related to the amount of time spent on Facebook, while personality is not shown to have as strong an impact (Ross et al., 2009).

Four main motivation categories are identified in social media literature informed by the U&G approach (Lee & Ma, 2012; Park et al., 2009). They are: (1) entertainment, which is about using social media for personal enjoyment; (2) socializing, which refers to relationship...