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ABSTRACT

Social media, a new form of electronic media for social engagement and interaction, are becoming important means of communication and valuable assets for both individuals and organizations. Used by millions of online consumers and many leading business practitioners, social media, however, has remained largely unexplored by business researchers. This study, therefore, seeks to broaden our understanding by investigating weblog success in achieving readership popularity. Drawing on the techno-social perspective of media and the cognitive psychology concepts of mindfulness and mindlessness, we conjecture that readership popularity of a social media site is associated with its technology-dependent, content-dependent and context-dependent characteristics. To validate the proposed research model, a set of very popular weblogs will be studied over a period of time. We will adopt a methodology which includes an objective evaluation of the sites and a survey of individual readers.

Keywords

Media success, techno-social perspective, mindfulness.

INTRODUCTION

The broad and evolving set of online technologies and related practices for social engagement and interaction, which we term SOCIAL MEDIA[1], have created a new form of shared public interpersonal communications (Jones, Ravid and Rafaeli, 2004). These technologies and practices have triggered profound changes in both the global economy and social structures (Mowshowitz and Turoff, 2005). Businesses have recognized the value of social media for marketing, advertising and public relation (Hui, Lai and Yee, 2007). Initially designed for social use, social media are beginning to shape organizational communication both externally and internally. Studies find that firm-hosted user communities, such as corporate wikis/blogs, are emerged as a new way of mobilizing information and knowledge across the formal boundaries of organizations (Ip and Wagner, 2007; Majchrzak, Wagner and Yates, 2006). Use of social media shifts the importance away from traditional organization communication media (e.g., email) towards a community-based collaborative platform.

Although social media are of significant social, organizational and economic importance, their successful adoption and use have been under-explored by business researchers. In particular, readership (or audience) popularity is not easily achieved in practice (Menchen, 2005) but is essential to sustain user engagement and media success (Butler, 2001). Studies (Shirky, 2003; Sifry, 2005) find that weblogs, for instance, have been following a power-law distribution with most of the readership focusing on a very small group of highly successful blogs. On one hand, to harness the network effect of a social medium, the more users engage in it the more valuable it becomes (Barabási, 2003). On the other hand, the increased rate of social engagement and interaction by online users intensifies the competition among individual media sites (Jones et al., 2004). Given the challenge in securing user engagement, it is imperative to explore and identify factors influencing social media success in terms of readership popularity.

Recently, a growing body of scholars has taken on a more general view into the study of electronic media and their success, synthesizing technology-dependent media characteristics with social influence theories (Kraut, Rice, Cool and Fish, 1998; Yoo and Alavi, 2001). But, few have considered the distinctive effects of socially constructed media content and contextual cues. According to cognitive psychology, users are social actors who respond to the content and context of social information by drawing distinctions and categorizations based on new or existing categories (Langer, 1989). While processing of information content to draw novel distinctions requires a state of mindful attention, individuals in social interactions of both online (Nass, Fogg and Moon, 1996) and offline (Langer and Moldoveanu, 2000) situations often have been observed to mindlessly form social categorizations and expectations based on minimal contextual cues. Guided by Orlikowski and Barley's (2001) *techno-social* research framework, and drawing on the media success literature and the mindfulness/mindlessness concept, this research is to investigate social media success from three dimensions:

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[1] **Social media are different from other electronic media** in terms of the technologies used, the norm of practices, and how the content is created and shared (Hall 2006; Spannerworks 2007). Popular technologies of social media include *folksonomies, forums, podcasts, weblogs*, *wikis*, *etc*. They support the norm of community-based practices. The content of social media is typically user-generated through social interaction and incremental user engagement.

the technology, content and context of media. In particular, we intend to study the **research question**: *What factors influence the success of a social medium in terms of readership popularity in the context of weblogs?*

WEBLOGS: THE CONTEXT OF INQUIRY

Among the set of popular online technologies that support social engagement and interaction, blog has gained considerable attention. There are already more than 70 million blogs worldwide (Sifry, 2007). Forty percent of American online users are blog readers (Lenhart and Fox, 2006). Large firms, such as IBM and Microsoft, are also seen at the forefront of the corporate blogging wave, where employees are encouraged to actively embrace and participated in this medium. As a promising social and business medium, blogs have attracted the participation of millions of online users and readers. Therefore, we choose blogs as the context of inquiry.

The term WEBLOG was first coined by John Barger (1997) and was defined as "a webpage where a blogger logs all the other webpages she finds interesting". Blogs are often written in a personal/informal style and displayed in a reverse chronological order. Most blogs are created with blogging tools supported by hosting services, standalone software or self-developed applications.

THEORECTICAL FOUNDATION

Media Research Literature

IS research in electronic media is generally concerns with the use or choice of a medium for interactions both across the human-computer interface and among users via the supporting technology. A review of literature found two major streams of underlying theoretical perspectives guiding the study of electronic media.

The first stream relies on the *technology-dependent perspective* to posit that media success is associated with the inherent material characteristics of media. Following this perspective, improving usability of a communication medium or an online media site is a major theme in the study of human-computer interaction (HCI), and is often used as a critical success measure (Agarwal and Venkatesh, 2002). Recent web-based usability studies specifically examine the common problem of web disorientation, and suggest navigability is a key design element (Nielsen, 2000; Palmer, 2002). While usability affects user-machine interaction, sociability, on the other hand, influences technology-mediated social interaction (Preece, 2000). Media richness theory (Daft and Lengel, 1986) and social presence theory (Short, Williams and Christie, 1976) are two prominent theories concerning sociability among technology-mediated users. While media richness theory emphasizes the information processing capability and social presence theory stresses the connectedness among users, both regard the degree of social presence and media richness in terms of how interactive and expressive a medium is (Kraut et al., 1998). With this conception, studies examining the technology effects to increasing sociability among online users focus on interactivity of a medium (Liu and Shrum, 2002; Rafaeli and Sudweeks, 1997).

The second stream of media research, namely the *social construction perspective*, argues that the effects of media are less a function of the technology but more of how the content is interpreted and used in a social context (Carlson and Zmud, 1999; Trevino, Webster and Stein, 2000). This line of research uses social influence theories and normative models to explain media use and success. Among them, Markus (1994) suggests that media selection and use in an organization can be shaped by the surrounding social processes; Fulk (1993) shows that social norms influence individuals' use of a new communication medium. Based on the critical social theory, Ngwenyama and Lee (1997) further suggest that communicators are actors (rather than passive recipients) who assess the "contextuality of meaning" within a social context; Contextual cues, such as the sender's social status or items of exchange value, affect the recipients' interpretation and validation of what is transmitted, and ultimately influence the success of communication.

Researchers who draw on the social construction perspective stress the socially constructed media characteristics; sometimes overlook the importance of objective media properties (Kraut et al., 1998), and their ability to shape practice or behavior (Orlikowski and Barley, 2001). Researchers who draw on the technology-dependent perspective emphasize the objective media characteristics; often ignore social/institutional contexts in which the technologies are developed and used (Kling, 1987). Yet, the fundamental criticism to both streams of study is that they assume mindfulness (or some degree of active information processing) as the norm in media selection and use, and therefore can only be predictive when users are mindful (Timmerman, 2002).

Mindfulness and Mindlessness

MINDFULNESS is a state of conscious awareness of both the content and context of information (Langer, 1992). A mindful state implies creation of new categories, openness to new information, awareness of multiple perspectives, and sensitivity to different contexts (Langer, 1989). Individuals in a mindful cognitive state are engaged in active information processing to draw novel distinctions (Langer and Moldoveanu, 2000). Actively drawing these distinctions keeps the individuals situated in the present as apposed to recalling past events (Sternberg, 2000).

The counterpart of mindful attention to social information is the mindless acceptance and categorization of information based on minimal contextual cues, such as status or gender. MINDLESSNESS is a state of reduced attention characterized by over-reliance on existing social categories and distinctions due to premature cognitive commitments to beliefs (Langer, 1992). When information is given by, for instance, an authority or expert, individuals may mindlessly categorize it as legitimate without critically examining the content, and develop positive expectations.

In general, the mindfulness and mindlessness concepts are helpful for explaining and treating a wide range of social and cognitive issues (Demick, 2000). However, relevant business research has been focused either on creativity and innovation, or on organizational reliability (Butler and Gray, 2006).

THE RESEERCH MODEL AND HYPOTHESESE

While the technology-dependent perspective and social construction perspective of media lead to the development of different models and explanations, much can be gained from the integration of the two (Yoo and Alavi, 2001). To develop our research model (Figure 1) for social media success, this study applies the integrated conception of media to emphasize the technological aspect of media as well as to recognize its social-contextual characteristics. The term *techno-social perspective*, adopted from Orlikowski and Barley (2001), is used here to refer to the integration of both the technology-dependent and social construction perspectives. The model further distinguishes media's content and contextual characteristics through a *mindfulness/mindlessness lens*.
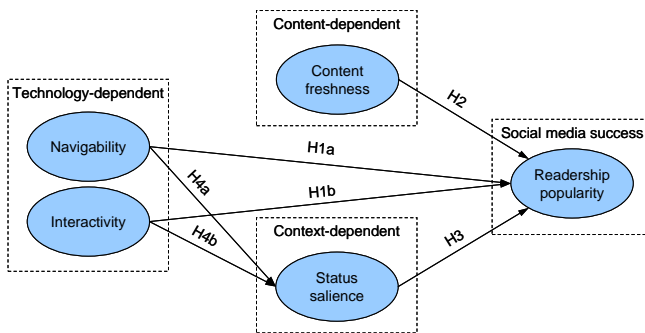

Figure 1. A techno-social model of media success

Recent web-based studies suggest that information use (Palmer, 2002) and user satisfaction (Griffith, Krampf and Palmer, 2001) are important elements of success. Readership popularity measured by user activities, such as inbound links (Hindman, Tsioutsiouliklis and Johnson, 2004) and new/repeated visits (Hui et al., 2007), are good surrogates for information use—"recipients consumption of the output of an information system" (DeLone and McLean, 1992, p. 66). These persistent user activities in a particular website also reflect users' sense of affection and loyalty. Hence, readership popularity is used here to signal the success of social media from the perspective of the recipients (i.e., readers or visitors).

Drawing on literature in the technology-dependent perspective of media, interface navigability and interactivity are identified as potential key variables for social media success. Navigability, "the ease with which the users can move around and find what they want in a media site" (Preece, 2001, p. 353), helps reduce users' web disorientation and cognitive overload (Webster and Ahuji, 2006). INTERACTIVITY, "media's potential ability to let the user exert an influence on the content and/or form of the mediated communication" (Jensen, 1998, p. 201), helps

ease users' effort to link to or comment on others' work (Blood, 2004). From a reader-centric perspective, a navigable media site is better organized and less disorienting, whereas an interactive media site better enables them to be personally involved with questions/comments. Hence, a social media site that is navigable and/or interactive can potentially attract more readers. So, we propose

H_{1a}: Navigability of a social media site is positively correlated with its readership popularity.

H_{1b}: Interactivity of a social media site is positively correlated with its readership popularity.

Extending the social construction perspective of media with the mindfulness/mindlessness distinction, content freshness and status salience are potential key variables for social media success. Social construction perspective suggests that media in use is situational. Socially constructed meaning may exhibit different characteristics than the media as conceived (Yoo and Alavi, 2001). Social actors (e.g., readers) are often found to be selective with respective to a wealth of information by drawing distinctions and categorizations (Broadbent, 1958). Such distinction-making cognition and behavior may be catalyzed to a mindful or mindless state depending on the extent of the content or contextual cues (Burgoon, Berger and Waldron, 2000).

CONTENT FRESHNESS, the extent to which the information provided by the media is up-to-date or is oriented in the present, is a content-dependent media characteristic. Hui et al.'s (2007) empirical study finds that the number of new entries posted is positively associated with the number of new visits. When the content of a social media site is fresh or newly updated to reflect recent events or trendy issues, it may impel readers' mindful attention and engagement (Sternberg, 2000), and consequently enhances readership popularity. So, we propose

H_2: Content freshness of a social media site is positively correlated with its readership popularity.

STATUS SALIENCE usually refers to the salience of a person's status cues, such as his/her authority and prestige levels (Van Prooijen and Van den Bos, 2002). In this study status salience refers to the contextual cues of a media site representing its level of authority and prestige. Nass et al.'s (1996) experiments suggest that when people interact via the computer (instead of face-to-face) they tend to respond socially and mindlessly to non-verbal contextual cues. Social or contextual cues, such as status cues, trigger a series of expectations, assumptions and attributions (Nass and Moon, 2000). When the status cues of a social media site are salient, readers may be mindlessly attracted to it because of its prestige networking (linking) profile to other established sites, its brand/celebrity effect, and its social attractiveness to visitors (e.g., to even leave comments). So, we propose

H_3: Status salience of a social media site is positively correlated with its readership popularity.

Drawing on the techno-social perspective of media, certain technological features of a social media site can potentially influence the salience of its status cues. Studies suggest that a well organized and navigable interface may help to enhance its professional look and feel to readers (Du and Wagner, 2005), and hence the site's authority status may appear to be more salient. Similarly, an interactive social media site, that automates contact link creation or update notification, that eases the effort to read and comment, or that facilitates networking or other social activities with convenience, may help to enhance its prestige social status (Du and Wagner, 2006). In recognizing the technology's shaping capability to readers' assessment of the contextuality of meaning in social engagement and interaction, we propose

H_{4a}: Navigability of a social media site is positively correlated with its status salience.

H_{4b}: Interactivity of a social media site is positively correlated with its status salience.

RESEARCH DESIGN

To test the research model for social media success, we are examining 100+ text-based popular blog sites for one month. Rather than random sampling, this study takes the top-100 blogs ranked by Technorati.com, investigating their best practices to achieve readership popularity.

Dependent variable. Readership popularity is measured using Technorati's blog popularity ranking, which is determined by the number of unique inbound links from other blogs. To derive an overall popularity ranking from the daily recorded scores over the month, a rank aggregation technique called Borda rule is used, essentially treating each inbound link as a vote for popularity by a committed blog reader. We use the ranked scores rather than the actual number of inbound links because they can better reflect the relative (winning or losing) position of a blog—the number of inbound links varied considerably over time.

Independent variables. First, two independent raters will evaluate each of the sampled blog sites following an objective rating scheme. Second, a survey will be administered to blog readers via email invitation. Ten readers who have recently made a comment in each of the sampled blogs will be randomly selected. Further, three control variables (one for each of the three dimensions) are used: technology consistency during the evaluation period, major type of information presented in the blog content, and maturity or age of the blog since creation.

We will use PLS to analyze the research model. T-tests will also be used to compare groups, e.g., the top vs. the bottom groups, or those whose ranks have moved up vs. those whose ranks have moved down during the month.

CONCLUSION

This study extends existing media research at both theoretical and applied levels. So far, most existing theories concerning media use for HCI and computer-mediated social interaction do not distinguish individual's mindful/mindless response to the content and context of information cues. From a theoretical perspective, this study establishes a techno-social success model, suggesting that social media success is associated with the technology used, and the content and context communicated. For business practitioners, this study provides a potential winning formula to become popular. First, the media technology needs to designing for usability and supporting sociability (Preece 2000). Second, information provided by the media needs to capture readers' mindful and mindless attention. People communicating in electronic media tend to detect less individuality in others (Weisband et al. 1995). This study helps further reduce the problem of dindividuation by improving the salience of media's contextual cues through the use of certain technological features. Overall, this research is important for guiding the adoption and use of social or firm-based user communities, and other similar types of online interaction spaces.

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