Major issues in SISP: Insights into the main reason of SISP failure

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USE OF BLOGS FOR COLLABORATION IN ORGANIZATIONS

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Abstract

Blogs are increasingly being used as collaboration tools in organizations. However the quality and accuracy of the posted messages in them are still causes for concern. This study proposes a research model to investigate the factors affecting trust in posted messages and the influence of such trust on knowledge use. It suggests that users’ intention to use trusted messages can act as a moderator variable in the relationship between trust and use of the collaboration tool.

Keywords: Blogs, Collaboration, Trust, Knowledge Use
1 INTRODUCTION

Organizations are increasingly adopting online collaboration tools as platforms where data, information, and knowledge about a particular topic can be shared among employees (Gordon, 2006). Blogs are relatively new forms of organizational online communication tools that are being increasingly used to promote internal collaboration as well as enhance knowledge sharing and use in organizations. However, the quality of messages shared on them is claimed to be average because some visitors may contribute useful information, while others may post irrelevant responses (Wen and Wen, 2006). The accuracy of posted message is also a critical concern (Cherry, 2003; Denning et al., 2005) because the messages may contain subjective opinions of the posters. The quality and accuracy of exchanged information has been shown in prior research to have a significant effect on user understanding and perceived effectiveness of communication (Daft and Lengel, 1986). In fact, the quality and accuracy of content on a Web site is a major factor influencing users’ trust towards the site (Mithas et al., 2007).

Therefore this research seeks to investigate what makes people trust the messages posted on Blogs and the effect this trust has on knowledge use. Understanding these relationships can be useful in redesigning the tools to achieve their maximum effective usage as well as justifying their adoption in organizations as a means to increase collaboration among employees.

The term Blog (i.e., Weblog) refers to an automated, personalized, and community-supported Web page, kept in reverse chronological order (Du and Wagner, 2007). It allows individuals to submit and share text, images, or video with others through the Internet or even a mobile phone (Bamford et al., 2006; Cemerlang et al., 2006). Common features of Blogs include searching, posting, and commenting on its messages. They differ from forums, message boards, newsgroups, and Wikis in that only the Blog owner is permitted to post entries, whereas readers are restricted to only comment on the posted entries (Gordon, 2006). The additional comments are appended to each posted message (Torrey et al., 2007). In terms of patterns to use, a Blog usually links to other Blogs in the same category or interest area.

Empirical research on Blogs has been limited. Although an initial study suggested that the primary purpose of using a Blog was as a personal journal, and its use for collaboration was fairly rare (Herring et al., 2004), more recent studies have shown the positive impact of Blogs on collaboration among users. Du and Wagner (2007) empirically examined the relationship between usage of Blogs for online learning and student learning performance. Their results suggest that effective use of Blogs promotes the constructivist models of learning by supporting both cognitive and social knowledge construction. Lin et al. (2006) studied the implementation of a Blog system in an international distance education course. Their findings suggest that Blogs are effective tools to document the student’s learning, to share experience and knowledge, and to have direct interaction with long distance peers.

2 THEORETICAL DEVELOPMENT

Several researchers have investigated the association of social networks with trust. Strength of ties is an aspect of social networks that correlates to a degree of trust. It can be measured by various criteria such as the length of time two actors spend together, the emotional intensity between two actors, the degree of trust and acquaintance, the frequency of interaction, or the time of relationship (Kristiansen, 2004). Strong ties bind actors who likely to be connected (Grannovetter, 1983). They exist for people with acquaintance such as family members, close friends, co-workers, etc. This study focuses on the strength of ties between the poster and reader of messages on corporate Blogs.

Many studies have shown that strong ties are important channels in transferring useful knowledge (Brass and Burkhardt, 1993; Droge and Anderson, 2003). Relationships between actors with strong ties, as a result, are beneficial. Levin and Cross (2004) claimed that when trust exists, people are more willing to give useful knowledge and also more willing to listen to and absorb others’ knowledge.
McGrath et al. (2003) found that software executives who were looking for advice tended to request people they knew well mostly from relationships formed through previous work settings, educational settings, or mutual contacts. In the current study, we measure the message reader’s perception about the relationship between the reader and the poster. It can be expected that messages posted on an online collaboration tool by an actor with strong ties to the reader will increase the reader’s trust on the message. Thus we hypothesize:

H1: Greater strength of ties with message posters increases readers’ trust on posted messages.

Reputation has been studied by many researchers in different perspectives. Barnett et al. (2006) defined corporate reputation as observers’ collective judgments of a corporation based on assessments of the financial, social, and environmental impacts attributed to the corporation over time. Helm (2005) proved that corporate reputation involved a variety of different measures and it correlated to stakeholders’ loyalty towards the company. Johnson et al. (1993) analyzed a relation between executive’s reputation and firm financial performance. They defined executive’s reputation as the expected value of true managerial ability conditional on all previous productivity observations.

Studies on reputation and trust have recently become important in information systems research, especially in the context of electronic markets. Reputation helps to build trust and cooperation among loosely connected and geographically dispersed economic agents (Dellarocas, 2006).

Reputation in this study refers to overall quality or character of the message poster as seen or judged by people in organization. In other words, reputation of the message poster is perceived as recognition by other people of some characteristics or abilities. According to the prior studies, it can be expected that messages on an online collaboration tool posted by a person with high reputation in an organization will increase the reader’s trust on the message. Thus:

H2: Reputation of message posters increases readers’ trust on posted messages.

Power has been researched for many years in multiple disciplines. An interesting study on interpersonal power was conducted by Garrison and Pate (1977). They measured power in different contexts, including the co-worker context. A co-worker is defined as someone a person has communicated with on a regular basis in the present job. The results of the study showed that perceptions of interpersonal power vary across the communication context. In the current study, power is conceived as relationships between two or more actors in which the behavior of one is affected by the behavior of the other (Jasperson et al., 2002). In other words, power is a perceived or attributed characteristic possessed by a social actor with a definite potential or capacity which may be used to influence or even control the behavior of others in some manner within some contexts (Brill, 1992). A person who holds more power can draw on rules and uses techniques of production and discipline through social relation (Backhouse et al., 2006). Regarding trust in online collaboration, it can be expected that messages posted on an online collaboration tool by a person who asserts more power will increase the reader’s trust on the message. Hence we hypothesize:

H3: Power of message posters increases readers’ trust on posted messages.

Apart from the characteristics of the message poster as mentioned above, features and elements used in posted messages are believed to affect trust and eventually the knowledge use of an online collaboration tool. In recent years, several studies have shown that Web site features and elements such as graphics, colors, links, tabular forms, frame location, background, navigation, organization, uniformity, etc. influence the beliefs and behaviors of Web customers (Song and Zahedi, 2005), user efficiency and frustration level (Pratt et al., 2004), and perceptions of customer service, information privacy, and product quality (Resnick and Montania, 2003). Interestingly, Everard and Galletta (2006) studied how Web site presentation flaws affect perceived site quality, trust, and intention to purchase from an online store. The flaws included poor aesthetics, quality, and reliability of a Website. Each of these flaws was found to prevent users from using the system in a meaningful manner.

Aesthetic aspects of a Web site should possess the same priority as the functionality aspects in Web design (Thorlacius, 2002). The organization of a Web site was found to have the greatest impact on the users’ experience visiting the site (Lynch and Horton, 2002). Several prior studies suggested that
customers are more likely to enjoy orderly Web sites due to ease of use and navigation (Song and Zahedi, 2005). In contrast, the poor style of Web sites was found to be inversely related to the users’ level of perceived quality, trust, and intentions to purchase from an online store (Everard and Galletta, 2006). The elements of a Web site’s poor style are graphical and visual elements such as background, font size, columns, words, line spacing, etc that interfere with reading. As a result, in this study, it is assumed that a poor style of posted messages on the online collaboration tool such as an unusual background color, font style, font size, words, line spacing, or frame layout, will reduce the reader’s trust on the message. Thus:

H4: Poor style of posted messages decreases readers’ trust on posted messages.

Incompleteness of a Web site is another factor that discourages confidence and trust of visitors (Everard and Galletta, 2006). Incompleteness refers to a Web site that includes obsolete content or links, non-loading pictures, or missing information. Information provided on a Web site should be accurate, detailed, up-to-date, and relevant (Li et al., 2002). A Website with high information quality provides valuable and helpful knowledge, leading to a larger audience (Chiu et al., 2005). On the contrary, incomplete sites can be risky and lead to negative impression of visitors. In online transactions, information incompleteness makes it difficult for buyers to assess sellers’ true characteristics and product quality, resulting in uncertainty perceptions about the transaction (Pavlou et al. (2007). For the current study, incompleteness of posted message on the online collaboration tool is likely to cause readers to become disappointed and not return. It can be expected that incompleteness of a posted message on the online collaboration tool will reduce the reader’s trust on the message. Thus:

H5: Incompleteness of posted messages decreases readers’ trust on posted messages.

A flaw that affects perceived site quality, trust, and intention to purchase from an online store includes typographical, grammatical, and factual errors (Everard and Galletta, 2006). Similar to incompleteness of Web sites, such errors distract users and make them suspect a generally poor quality of the system. Spelling errors may interfere with the user’s perception of the reliability of the information provided on the Web site (Liu and Ginther, 2001). Credibility in online communication is significant. It makes a competitive difference in an organization’s success (Booher, 2004). An experimental study on the effects of support conforming use of spelling and grammar in Computer-Mediated Communication (CMC) system found an increase of message persuasiveness (Wilson, 2005). In the current study, it is expected that language errors in a posted message on an online collaboration tool will reduce the reader’s trust on the message. Hence we hypothesize:

H6: Errors of posted messages decrease readers’ trust on posted messages.

Several studies have demonstrated that trust is a significant factor for organizational success. An organization that has a high level of trust environment promotes the exchange of valuable ideas between workers that will, in turn, leads to better firm performance (Collins and Smith, 2006). When trust among employees is low, individuals will be careful about exchanging information and ideas with one another. Trust has been shown to be a major factor in facilitating successful knowledge sharing (Kumar and Thondikulam, 2006) and R&D collaboration performance (Hurmelinna et al., 2005). Several prior studies, additionally, show that trust influences the intention to use or usage of information systems (IS) (Son et al., 2005; Kankanhalli et al., 2005; Salam et al., 2005).

H7: Trust on posted messages increases readers’ use of the Blog tool.

In the current study, intention to use trusted knowledge is defined as a degree of which a knowledge worker believes he or she has incorporated procedures for the capture and use of knowledge of various types into decision-making activities, routine, and otherwise and intends to use it (Kulkarni et al., 2006). Based on the findings of prior research, it can be expected that greater intention to use trusted knowledge will lead to a stronger relationship between trust and use of the tool whereas lower intention to use the knowledge will lead to a weaker relationship between trust and use of the tool.

H8: Intention to use knowledge moderates the relationship between trust and knowledge use.

The Research Model is shown in Figure 1.
RESEARCH METHOD

The study will utilize a Web-based field survey to collect data from organizations that are using Blogs for knowledge sharing among co-workers. Given that prior research on Blogs has largely relied on anecdotal information and not explored their use for organizational collaboration, the current research will aid further understanding on the subject.

The research questionnaire will include questions about (1) the collaboration tool used in the company; (2) trust in posted messages; (3) knowledge use; and (4) demographics. The questionnaire items have been derived from several prior studies in different disciplines such as psychology, IS, and management (Kulkarni et. al., 2006; Everard and Galletta, 2005; McKnight et. al., 2002; Levin and Cross, 2004; Evald et. al., 2006; Caruana, 2006; Garrison and Pate, 1977) with minor modifications.
made to fit the study’s context. Trust and knowledge use are measured using 5-point Likert scales. The questionnaire instructions, items, and sources can be found in Appendix A.

Ten organizations in China and Thailand that are currently using Blogs for collaboration will be contacted to participate in the study due to their accessibility to the researchers. A pilot study has been conducted with two subjects from different companies one based in China and the other in Thailand to assess the duration of a typical survey and to ensure that the questions would be correctly interpreted by the subjects. The first participant in the pilot recommended a translation of the questionnaire into Chinese to accommodate Chinese speakers, reduce the survey duration, and increase the response rate. The second participant recommended minor changes to the instrument which have been duly incorporated. The questionnaire has been translated to Chinese following the procedure recommended by Brislin (1986). One of the current study’s authors whose native language is Chinese translated the English questionnaire into Chinese and this translation was verified for accuracy by two other native Chinese speakers. Next, three different native Chinese speakers conversant with the English language, independently translated the revised Chinese version back to English. After the back-translation, the study’s authors compared the three back-translated English questionnaires with the original English version. No significant differences were found. Therefore, the revised Chinese version questionnaire will be posted online along with the English version for data collection. The data gathered will be analyzed using PLS-Graph 3.0 to test construct validity and the research hypotheses. Controls will be employed for the organization’s size, industry and national culture.

4 EXPECTED CONTRIBUTIONS AND LIMITATIONS

We believe that our research will be among the first studies to use quantitative methods to measure trust and knowledge use in organizational online collaboration tools such as Blogs. Because Blogs are not universally used in organizations, we believe our research could have implications for both early adopters and potential adopters. The results of the research could help early adopters better understand the factors that influence trust and knowledge use. Therefore, they could improve productivity within their organization by facilitating greater trust and knowledge use. The result will also help potential adopters understand the benefits of using Blogs, and how to implement them to maximize trust and knowledge use. Limitations in the current design are that the study utilizes a field survey with perceptual measures and single respondents. In-depth case studies could provide a richer context given that respondents may not accurately remember their social relations or simply provide socially acceptable answers to the questionnaires. However, given the limited research on the subject we believe our findings will inform future research that could utilize qualitative methods, objective measures and multiple respondents to overcome any response bias issues.
References


Appendix A

How Often Do You Use Your Organization’s Blog tool:
___ Hours per Day ___ Times per Week

To what extent do you agree with the following statements related to messages posted on your corporate collaborative environment?

(1=Strongly disagree, 2=Disagree, 3=Neither agree/nor disagree, 4=Agree, 5=Strongly agree)

<table>
<thead>
<tr>
<th>Construct</th>
<th>items</th>
<th>source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intention to use knowledge</td>
<td>a1 If I trust the posted message, I will apply the shared knowledge to my work.</td>
<td>Kulkarni, Ravindran, and Freeze 2006</td>
</tr>
<tr>
<td></td>
<td>a2 If I trust the posted message, I will share the knowledge to coworkers.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>a3 If I trust the posted message, I will refer to the shared knowledge in future work.</td>
<td></td>
</tr>
<tr>
<td>Trust (on posters)</td>
<td>b1 I usually trust people until they give me a reason not to trust them.</td>
<td>Everard and Galletta, 2005</td>
</tr>
<tr>
<td></td>
<td>b2 When I first meet someone, I generally accept that he/she is telling the truth, even though I do not necessarily believe him/her.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>b3 My typical approach is to trust new acquaintances until they prove I should not trust them.</td>
<td></td>
</tr>
<tr>
<td>Trust (on posted messages)</td>
<td>b4 I would trust a posted message if I feel it gives information about the particular topic very well.</td>
<td>McKnight et al., 2002</td>
</tr>
<tr>
<td></td>
<td>b5 I would trust a posted message if I feel assured that it is very knowledgeable about the particular topic.</td>
<td></td>
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<tr>
<td></td>
<td>b6 I would trust a posted message if I have confidence in it.</td>
<td></td>
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<tr>
<td></td>
<td>b7 I would trust a posted message if I believe it is trustworthy.</td>
<td></td>
</tr>
</tbody>
</table>

To what extent would you trust a message posted on your corporate collaborative environment (1= Very little extent, 2= Little extent, 3= Neutral, 4= Great extent, 5= Very great extent).

<table>
<thead>
<tr>
<th>Construct</th>
<th>items</th>
<th>source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strength of Ties</td>
<td>if you feel awkward talking to the message poster about a non-work related problem.</td>
<td>Levin and Cross, 2004</td>
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<td></td>
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<tr>
<td>c2</td>
<td>if you know the message poster well outside the work related areas.</td>
<td>Evald, Klyver, and Svendsen, 2006</td>
</tr>
<tr>
<td>c3</td>
<td>if you have had a long positive relationship with the message poster.</td>
<td></td>
</tr>
<tr>
<td>c4</td>
<td>if you have frequent interaction with the message poster.</td>
<td></td>
</tr>
<tr>
<td>d1</td>
<td>if the message poster can be relied upon to be sincere.</td>
<td>Stewart, 2006</td>
</tr>
<tr>
<td>d2</td>
<td>if promises and commitments made by the message poster are likely to be kept.</td>
<td></td>
</tr>
<tr>
<td>d3</td>
<td>if the message poster is trustworthy.</td>
<td></td>
</tr>
<tr>
<td>d4</td>
<td>if the message poster is well known in your team, department, or organization.</td>
<td>Caruana et al., 2005</td>
</tr>
<tr>
<td>e1</td>
<td>if the message poster has a great deal of influence over your behavior.</td>
<td>Garrison and Pate, 1977</td>
</tr>
<tr>
<td>e2</td>
<td>if the message poster is a powerful person.</td>
<td></td>
</tr>
<tr>
<td>e3</td>
<td>If you see the message poster as a leader.</td>
<td></td>
</tr>
<tr>
<td>e4</td>
<td>if you find the message poster to be a very persuasive person.</td>
<td></td>
</tr>
<tr>
<td>f1</td>
<td>if the posted message looks rather unattractive.</td>
<td>Everard and Galletta, 2005/2006</td>
</tr>
<tr>
<td>f2</td>
<td>if the posted message is hard to read.</td>
<td></td>
</tr>
<tr>
<td>f3</td>
<td>if the posted message is rather messy.</td>
<td></td>
</tr>
<tr>
<td>g1</td>
<td>if some pictures, graphs, or figures are not visible.</td>
<td>Everard and Galletta, 2005</td>
</tr>
<tr>
<td>g2</td>
<td>if some parts of posted messages are unfinished.</td>
<td></td>
</tr>
<tr>
<td>g3</td>
<td>if the posted message has some missing information.</td>
<td></td>
</tr>
<tr>
<td>h1</td>
<td>if there are typographical errors in the posted message.</td>
<td>Everard and Galletta, 2005</td>
</tr>
<tr>
<td>h2</td>
<td>if some words are misspelled in the posted message.</td>
<td></td>
</tr>
<tr>
<td>h3</td>
<td>if there are spelling errors in the posted message.</td>
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