An Analysis of the Use of Blogging to Solicit Feedback in a Higher Education Unit

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Abstract - This study investigated co-workers’ perceptions, and use, of blogging as a means for soliciting and receiving feedback on issues related to their work, with the objective of determining how blogging possibly contributes to a participatory learning culture in the workplace. The study involved about 50 staff members in a research unit within an institution of higher learning in the northeastern United States who use the Unit’s blog to: (1) share information of interest, (2) update work progress, (3) reflect on work activity, and (4) solicit feedback on their work activities from colleagues. The study analyzed records of the year-long blogging activities of these staff members as well as their responses to a survey. Findings point to the possible involvement of blogging in the Unit’s participatory work culture, but reveal mixed correlations between the inclusion of various media elements in blog posts, and corresponding responses. Also, no clear relationship could be established between workers’ perceptions of the usefulness of the blog and their actual blogging activities. Implications of these findings with regard to workplace collaboration and learning are discussed.

Index Terms - Blogging, Participatory culture, Web 2.0, Workers’ Perceptions

I. INTRODUCTION

Blogging, since the arrival of the term “web log” in 1997 [1], has become a burgeoning phenomenon especially after the birth of several notable blogging websites, such as Blogger.com in 1999, Edublog.org in 2001, and Wordpress.com in 2003. Blogs are online text-based web publishing media, and are mostly used by “bloggers” to record works of interest in a reverse-chronological order. Blogs can be created by any web user and accessed by any internet-enabled web browser. Blogs support some common features of many web 2.0 tools in the contemporary digital age. Through the option of open commenting and anonymity, they create a “civil space” for readers and authors; and through text writing, they hold readers’ informal “conversations” toward one or multiple blog entries on the site. Blogs also allow the flexibility of multimodal representations of content in text, image, video, audio, and/or hyperlinks, thus giving voices to individuals who share a communal blog site, e.g., workplace blog, and supporting a more transparent and collaborative workplace culture regardless of possible hierarchy. Blogs, therefore, offer institutions the opportunity to evolve into what Gardner calls “learning organizations.” [2].

A learning organization, according to Senge [3], is an organization that encourages co-workers to continuously enhance their capacities in support of the organizational mission, formally or informally, through collective brainstorming, sharing, and learning in a non-hierarchical way. With the prevalence of web 2.0 communication platforms containing multimedia and digital contents on the Internet today, e-communications among co-workers have further complemented the traditional face-to-face communications in the collaborative learning workplace environment. Organizations nowadays cannot limit internal communications to one single format; instead, they need to be aware of multiple formats of tools available on the internet, and recognize how to utilize those tools to nurture the morale of employees and to motivate a collaborative workplace culture - a participatory culture as defined by Jenkins et al [4].

Studies of blogging activities in any learning organization would thus contribute to our understanding of how blogging can support a participatory culture, and how the blogging processes and dynamics might influence co-workers’ interaction on web. Limited studies focusing on workplace collaboration via web 2.0 tools have, however, been reported, and these generally highlight the tension between an increasingly saturated social media environment and employees’ reluctance to use web 2.0 tools [5], [6]. This study, therefore, examined blogging within the higher education workplace context with the purpose of determining: (1) staff members’ general perceptions of the usefulness of blogging as a means for promoting collaborative work activities, (2) the frequency of use of blogging to solicit and give feedback, and (3) whether the inclusion of multimedia elements such as video, audio etc. in work-related blog posts contributes to influencing feedback to such posts in ways that are different from text only posts.
II. THEORETICAL PERSPECTIVE

Central to this study is the consideration that there is a relationship between the availability of multiple media elements on a communication platform and the level of co-workers’ internal interaction on that platform. Such multimedia elements thus influence the participatory culture [4] in the workplace, as passive content consumption in the web 1.0 era is replaced by "a social ethos based on knowledge-sharing" (p. 50):

... a culture with relatively low barriers to artistic expression and civic engagement, strong support for creating and sharing one's creations, and some type of informal mentorship whereby what is known by the most experienced is passed along to novices. A participatory culture is also one in which members believe their contributions matter, and feel some degree of social connection with one another (at the least they care what other people think about what they have created). (p. 3)

Thus, this culture values technologies as new “ethos stuff” in addition to new “technical stuff” [7] to solicit more “civil voices” and nurture community collaboration in the contemporary digital age. This culture further distinguishes itself from earlier media culture in various ways as argued by Jenkins et al. [4], including the promotion of distributed cognition [8] and collective intelligence [9] which are grounded in Vygotsky’s social constructionist theory where he asserts that learners’ knowledge construction comes from a “spiral” process of meaning making through social interaction by the use of language [10]. Vygotsky further states that the individual’s process of knowledge construction is fluid, discursive and conversational with a learning curve that reaches a “zone of proximal development” in rich collaborative situations. In an online environment, learning happens around “conversational” platforms, and essential media elements support such features by multimodal literacy representations.

The distributed cognition perspective contributes to our understanding of the importance of social interaction and interactivity brought by media. Clark asserts that the intelligence of human beings is distributed across “brain, body, and world,” in the context of the larger sociocultural environment with extended technologies [8]. This theory is further expanded by Pea’s point that as the “resources that shape and enable activities are distributed in configurations across people, environments, and situations...intelligence is accomplished rather than possessed” (p. 50, as cited in Ref. [4]). As distributed intelligence emphasizes the role that media play in the cognitive process, it is closely related to the perspective of collective intelligence given by Levy [9], which is specifically situated in the digital age, aiming at pooling knowledge and sharing both the knowns and unknowns as a whole group. Group intelligences emerge from synchronous or asynchronous interaction, collaboration, and even competition among individuals’ mass communications and mass behaviors happened on the web via a variety of web 2.0 technologies [9]. The idea of group intelligence is in line with Lave and Wenger’s theory of community of practice [12], which describes a group of members who share an interest, a craft, or a profession, with the group can evolving naturally because of the common interest and a goal of gaining knowledge shared by members. Communities of practice can exist in real life, or online, such as within discussion boards, or a blog site.

Kress also points out that texts of performances of literacy today include multiple formats of representations for producing and organizing knowledge [13]. And combinations of various media technologies contribute more to an individual’s cognitive learning than a single format of content representation [14]. Thus, a learning model with multiple multimedia elements can more effectively help expand working memory capacity for an individual’s acquisition of new information than the utilization of a single mode as confirmed by Low and Sweller's multimodality principle [15]. On his part, Jenkins states that in the context of the global cultural climate today, the convergence of mass media (e.g., combination of blogging, RSS feeds, emailing, etc.) promotes activities of collective intelligence in a participatory culture, and vice versa [16].

The media convergence promotes the interactivity of co-workers’ communication and information access in the workplace. Users through RSS (Really Simple Syndication; [17]) feeds can keep themselves updated about new blog entries published by their colleagues on the site; they can read the newest entries through emails; they can also read the newest comments toward a single entry through emails. The “convergence” makes blog reading and giving feedback easier in a workplace saturated with blogging. Multiple media elements not only promote individuals’ “distributed intelligence” (ref. [8]), but also assist the community of practice by sharing information and experiences within a group where co-workers keep learning from each other and meanwhile foster their own growth personally and professionally.

Investigations of blogging in teaching and learning environments offer reveal some basic trends. Blogs with RSS feeds and specific readers are a convenient way to spread knowledge and form a specific learning community. Blogging, according to Ferdig and
Trammel [18], can also be more successful in supporting online interactivity in the way of “dialogue” than other asynchronous discussion alternatives such as discussion forums. A blog site also has more design choices and flexibility to present multimodal content and improve an active learning environment. Dyrud, Worley, and Flatley indicate that blogging can not only benefit students’ group work but also let them be more attuned to assignments and group members [19]. However, literature specifically regarding workplace usage of blogging is limited. Goodfellow and Graham described the use of wordpress.com by attendants during a conference, making informal/contextual and formal/informational posts, which received positive feedback from users and a high readership as shown by site statistics [20].

Efimova and Grudin (ref. [8]) also conducted a study of staff at the Microsoft company, where as reported most bloggers enjoyed the “gratifying experience” through efforts to “inform or help others, to learn about the destiny of their work in the “real world,” or to become visible as an expert in a specific area” (p. 6). Company encouragement to engage both customers and communities also contributes to a supportive atmosphere and eliminates potential obstacles. Meanwhile, the researchers also reported that some employees reported that blogging is time-consuming and the company encouragement cannot directly induce blogging, instead, “it is about passion” (p. 6). In contrast, Shafie and Junsoff’s study (ref. [6]) shows that a trial work blog site initiated for a collaborative research team at a university did not induce participation, with various reasons reported, including unfamiliarity of the platform, time constraints, preference for face-to-face communication, and unwillingness to share knowledge of teaching which is viewed by staff as part of the private knowledge domain.

Thus, it is meaningful to explore further in our study how blogging can contribute to a participatory culture, what the dynamics within it represent, and how the dynamics might influence co-workers’ interaction on the web, specifically the involvement of various media elements in blogging and feedback related activities.

III. METHODOLOGY

Study Context

The blog involved in this study was created on May 13th, 2005 as an integral part of a website of a research, design, and development unit within a graduate school of education in the Northeastern United States. This unit envisions and pilots knowledge projects in education and publishing, including reimagining schooling, innovations for online learning, new directions for online publishing, efficiencies in educational research, and charting the future of libraries. Staff members (about 50 in number and varying over time) therefore include videographers who produce videos on issues related to teaching and learning in general, educational technology researchers and developers who create educational prototypes and carry out research in line with the unit's missions, and content editors and publishers who work on an academic journal belonging to the institution. All these staff members are encouraged to use the unit's blog as a forum for sharing both work-related and non-work-related content. Blog posts thus come in the form of hyperlinked text, videos, audio, graphics as well as various combinations of these media. The blog site is very active and popular among staff inside the unit as well as the general audience on the web. For example, from November 2008 to November 2009, on average, there were about 7,101 page visits per day (excluding image visits and any other website “crawler” visiting), and 4.76 posts published and 5.65 comments made per working day by staff members.

In making the blog posts, however, individuals have the option of deciding whether to categorize a particular entry as either public (accessible by the general public) or private (accessible only by co-workers). Private entries can further be placed into categories such as "survey," "project idea," "work progress," "ask-for-feedback," etc. While most blog posts under each of these categories are for information sharing purposes, entries labeled "ask-for-feedback" are purposefully for soliciting ideas and advice from co-workers regarding proposed or on-going projects. When posted, such entries, therefore, attract responses in the form of comments, suggestions, criticisms, etc. Records of these "ask-for-feedback" posts and their accompanying responses formed the main dataset for this study.

Data Sources

Weblog data on all blog entries that were made between November 2008 and November 2009 were retrieved by the researchers who are also the administrators of the website. The researchers limited data collection to this one year period considering that (1) the researchers intended to investigate the most recent entries upon the submission of the proposal of this conference paper; and (2) prior to November 2008, staff recruitment was still ongoing and most individuals were still in the process of familiarizing themselves with the Unit’s resources. The data so obtained thus contained records of all blog entries within this period, along with such details as the author, date and time of entry, accompanying comments and identities of
contributor of such comments. After pre-treatment to obtain information on overall blogging activities, only data on “ask-for-feedback” related entries were subjected to further analysis.

To assess staff members’ perceptions of the value of blogging and relate these to their actual blogging activities, an online survey (see Appendix I) was distributed to 20 staff members of one of the divisions of the research unit, using QuestionPro survey software. It employed 5-point Likert scales along with statements to which respondents were to indicate their level of agreement or disagreement, etc. Nineteen staff members responded, and their data were recorded and analyzed.

Data Analysis
Blog entries were reviewed and subsequently characterized according to the media elements contained in them. Identified categories were:

- link (entry contains text hyperlinks to external resources)
- image (entry includes graphics - photos, diagrams)
- attachment (entry has documents attached)
- video (entry contains video/audio)
- poll (entry contains a poll plugin - used to solicit feedback in the form of a survey, see Fig. 1)

Also, for each entry, the accompanying comments were read to determine whether they were related to the issue(s) raised in the original entry (i.e., providing feedback), or were non-related. The numbers of entries within each category were then summed. Feedback related responses to entries under each category were also tallied, and all figures subjected to correlational analysis with SPSS.

With regard to responses to the survey questionnaire, most were automatically processed online by the QuestionPro software. Fig. 2 below shows an example of the output generated from the Likert scale responses to a particular statement.

IV. RESULTS & DISCUSSION

With regard to staff members’ perceptions of the usefulness of blogging as a means for promoting collaborative work, the majority of respondents (87.5%) strongly agreed or agreed that blogging can effectively promote information sharing, while over half of the respondents (62.5%) strongly agreed or agreed on the use of blogging to enhance work collaboration. Eighty percent of respondents reported that they tended to use blogging to share their project/proposal ideas, and 68.75% tended to update their project/proposal progress on the blog. The data also indicated how actively the respondents reported their use of the blog to share their project/proposal ideas, update their work progress, ask for feedback, and give feedback to others. Indeed, 43.75% of the 19 respondents reported that they provided feedback to others on the blog site at least once a week, and 37.5% posted “ask-for-feedback-related” blog entries at least once a week.

The values in Table 1 confirm that the blog is an active platform, particularly with regard to readership (averaging over 7,000 page views daily), and to a lesser extent, contributions in terms of blog posts or comments (which average about 4 and 5 each day respectively).

Figure 2. An example of analyzed survey result on questionpro.com
The blog is also consistently being fairly used as a medium for seeking and receiving relevant feedback. In an establishment where the entire staff meets physically only once a week to share ideas and information, the blog can be seen as a platform that contributes significantly to collaborative learning and work activities within the unit.

Table 2 presents data on the responses to the “Ask-for-Feedback” blog entries organized by features of the entries, including polls, images, video clips, links, and attachments. The first thing to note is that most “ask-for-feedback” posts employ only one of the five features examined (poll, image, video, link, attachment). These five features were used a total of 109 times among the 107 “ask-for-feedback” posts. A few posts included none of these features, the majority included one, and a few included multiple features.

A second conclusion to be drawn from the data in Table 2 is that including a particular feature in a post does seem related to the overall level of the response from co-workers. The 7 posts that included a poll question generated an average of nearly 34 responses. The 19 posts the included images generated an average of nearly 6 responses, those with video clips generated an average of nearly 4 responses, those with links generated an average of nearly 3 responses, and those with attachments generated an average of nearly 2 responses.

### Table 2.
CHARACTERISTICS OF “ASK-FOR-FEEDBACK” ENTRIES AND RESPONSES (NOV 2008 - NOV 2009)

<table>
<thead>
<tr>
<th>Category</th>
<th>No. of Posts with feature</th>
<th>Total Responses</th>
<th>Total Responses Per Post</th>
<th>No. of Feedback-related Responses</th>
<th>Feedback-related Responses Per Post</th>
</tr>
</thead>
<tbody>
<tr>
<td>Poll</td>
<td>7</td>
<td>236</td>
<td>33.71</td>
<td>118</td>
<td>16.86</td>
</tr>
<tr>
<td>Image</td>
<td>19</td>
<td>113</td>
<td>5.95</td>
<td>92</td>
<td>4.84</td>
</tr>
<tr>
<td>Video</td>
<td>11</td>
<td>42</td>
<td>3.82</td>
<td>28</td>
<td>2.55</td>
</tr>
<tr>
<td>Link</td>
<td>62</td>
<td>177</td>
<td>2.85</td>
<td>107</td>
<td>1.73</td>
</tr>
<tr>
<td>Attachment</td>
<td>10</td>
<td>18</td>
<td>1.80</td>
<td>9</td>
<td>0.90</td>
</tr>
</tbody>
</table>

This order remains the same when we limit the responses to those that actually provided feedback relevant to the original post. Thus, both the quantity of responses (as represented by total responses) and the quality of responses (as represented by relevant responses) appear to be related to the features of the original “ask-for-feedback” post.

### V. IMPLICATIONS AND CONCLUSION

As blogs grow in popularity, blogging as a means of disseminating and sharing information is increasing at the workplace. And with the potential of blogs to support various media elements and plugins for other powerful technology resources, blogging also represents a potential avenue by which collective knowledge building can take place. The question then arises as to whether workers avail themselves of this opportunity.

This study, though limited in scope, establishes that within a higher education unit that included educators, researchers and developers, blogging is not only perceived positively, but is also actively used to promote interaction and collaboration. Moreover, certain features of blog posts seeking co-worker feedback seem related to both the quantity and quality of responses generated. Providing a polling option directly to co-workers elicited both the most responses and the most relevant responses. Including images on the blog post led to the second highest levels in terms of the quantity and quality of responses, followed by including video clips, links, and attachments. We speculate that this order is related to the degree to which features within the blog post draw respondents to the post or send them away from it. The poll offers an easy and direct engagement in the issue at hand. The image on the blog page calls attention to the posting. The video clip that embeds a player on the page within the post also draws attention to the posting, but playing the clip may take the co-worker down a viewing path that competes with or detracts from the original posting message. A link takes co-workers away from the blog posting to another page, and an attachment take co-workers away from the blog posting to read another document. In the latter cases co-workers may neglect to return to the topic of the original post. We intend to pursue these issues in further investigations.

With the understanding that conversation can be a means of knowledge generation and transfer [21], the blog can be regarded as a medium that can potentially promote learning in the workplace, particularly as conversations persist in digital form and can be accessed at later times. Blogging can, therefore, also contribute to the establishment and maintenance of communities of practice within workplaces -
communities that can build and exchange knowledge and be a source of organizational strength and renewal. Obviously, more extensive studies are required in this direction to also help continue the discourse on the influence of blogging on collaborative work and collective knowledge generation and exchange.

REFERENCES


AUTHORS

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Appendix I

1. Please indicate your employment status:
   1. Full-time staff
   2. Part-time staff
   3. Graduate Assistant

2. Please indicate your role at the EdLab (e.g., researcher, software developer, etc.):

3. How often do you post "ask-for-feedback/idea" related entries on the EdLab blog site?
   1. At least twice or three times a week
   2. At least once a week
   3. At least once every two weeks
   4. At least once a month
   5. Less than once a month

4. How often do you provide feedback/idea to others on the blog site?
   1. At least twice or three times a week
   2. At least once a week
   3. At least once every two weeks
   4. At least once a month
   5. Less than once a month

Please indicate the extent of your agreement or disagreement of the following statements about the EdLab blog:

1. Strongly disagree
2. Disagree
3. Neutral
4. Agree
5. Strongly agree

<table>
<thead>
<tr>
<th>Statement</th>
<th>1</th>
<th>2</th>
<th>3</th>
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<tbody>
<tr>
<td>3. I believe the use of the blog can effectively promote information sharing.</td>
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<td>4. I believe the use of the blog can effectively promote work collaboration.</td>
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<td>5. I believe the use of the blog can effectively promote getting feedback from colleagues.</td>
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<td>6. I tend to use blogging to share my project/proposal idea.</td>
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<td>7. I tend to use blogging to update my project/proposal progress.</td>
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<td>8. I tend to use blogging to ask for feedback.</td>
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<tr>
<td>9. I tend to give feedback about projects on the blog site.</td>
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