

Social and Emotional Expressions in Online Blogs on Multi-purposed Websites

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An early Web 2.0 tool and a continued cornerstone of online interaction is the blog. Blogs as well as other Web 2.0 tools allow for accessible collaboration, bridging gaps that may exist geographically and culturally (Dron & Anderson, 2009; Fullwood, Sheehan, & Nicholls, 2009, Luckin et al., 2009; Watson, 2007). Participants can process their thoughts on a particular topic by posting their unique perspective then reviewing and responding to feedback from other participants (Ferdig & Trammell, 2004; Harper, 2005). This process creates a digital record of a progression in seeking to be understood and re-formation of personal identity (Anderson, 2004; Jenkins, 2006; Wang & Hsua, 2008). This may be especially true when the gaps are internal social deficits and the participants may have challenges with face-to-face communication (Richardson, 2006).

A key segment of connectivist learning theory is the building of knowledge through experiences with a community of learners (Kop & Hill, 2008; Siemens, 2005). This connection with others is embodied by the affordances of blogs, which are not necessarily present in traditional forms of communication (Wang & Hsua, 2008). Those affordances are provided by an asynchronous feedback loop with others, opportunity for reflection without the pressure of face-to-face communication, safe virtual environment for identify confirmation and exploration, autonomous and self-directed facilitation of communication and collaboration, and interface that is pleasing and comfortable to a generation born into a digital age (Baggetum & Wasson, 2006; Downes, 2004; Ellison & Wu, 2008; Lieberman & Goldstein, 2006; McKenna, Green, & Gleason, 2002; Schmitt, Dayanim, & Matthias, 2008). Furthermore, some research has found that participants who blog experience a greater sense of control, are more expressive about their

forming identity, and discuss more personal issues with higher levels of emotion (Downes, 2004; Schmitt et al., 2008).

A social-emotional motive for using blogs seems to be supported by the research, including studies on the use of blogs purposed for social communication and connection. Seepersad (2004) examined the reasons why participants accessed Internet tools like blogs and found a significant intercorrelation ($\phi_c=.14$, $p<.001$) with those seeking information and their participation in blogs for emotional expression and social connection. There was also strong evidence, although not significant, that social-emotional motives were intercorrelated to accessing blogs for entertainment ($\phi_c=.07$) or communication ($\phi_c=.09$). This motive is also apparent in how participants write and respond in blogs. Fullwood et al. (2009) analyzed the blog posts made by participants (ages 18 – 29) on MySpace and found a majority of blogs was semiformal in writing style (i.e., grammar usage and insertion of emoticons). In addition, one study found that over 60% of bloggers use emoticons, of which 53% are positive and 30% are negative in nature (Fullwood et al., 2009). The traditional, casual use of emoticons in texting suggests that the participants felt comfortable in expressing mostly positive emotions to many online strangers; it also suggests that the participants have an awareness of the audience. Thus, the act of blogging is not limited to a self-expression of thoughts and feelings, but possibly written with the motive to share emotion and elicit feedback or affirmation.

Blogging with emotions and social connections in mind seems to be therapeutic. One study (Seepersad, 2004) looked at the social deficits of secondary school-aged students and how prevalent their communication was in face-to-face versus online encounters. Those with social deficits like anxiety avoided interactions with peers during the school day but communicated with others more readily when online. Another study (Lieberman & Goldstein, 2006) pulled

blogs posted by breast cancer patients from an online support network and analyzed the text with respect to the tone of the words used (e.g., anger, fear, and sadness). It found that the online expression of negative emotion in dealing with breast cancer had a significant correlation ($p < .05$) with lower instances of anxiety and depression. There was also a significant correlation in these benefits when the participation by patients was higher. A third study (Cole & Griffiths, 2007) examined the interactions (either via voice-to-voice, online chat, or discussion forums or blogs) between participants on massive online role-player games (e.g., World of Warcraft). Over 75% were found to have close friends in the online game environment, and nearly 40% stated that they had felt comfortable enough to share emotional issues with online friends and not with those that they interact with in person.

The act of blogging seems to be motivated both for social connection and emotional communication. Its validity also seems clear, as participants could benefit socially and psychologically. This is especially true when the interactions are in a single-purposed blog or social network (e.g., breast cancer support or MySpace). Our research seeks to examine the evidence of social and emotional expression in an open blog on a multi-purposed website. We expect to show that there is no significant difference in the rate of emotional expression between posts in blogs on single- and multi-purposed websites.

Methods

Procedure and Participants

In order to explore our research question, a popular online gaming site (Minecraft) was chosen. Minecraft is a multi-player, online role-playing game where participants interact through play for pay or in open blogs. Topics include strategy about the game (e.g., Survival Mode or Creative Mode), creativity (e.g., Tools, Skins, or Texture Packs), platforms (e.g., Xbox 360),

support, and off topic discussions. The off topic blogs were chosen for data collection due to their multi-purposed topics. A filter was applied to all blogs to view trending topics that had posts within the last 30 days. Three categories were chosen (i.e., general, news, and gaming) and three topics were chosen. These 3 topics (created by participants) were selected for increasing emotional intensity: “Introductions and Leavings,” “Types of annoying gamers we ALL encountered,” and “Breaking News: multiple explosions at the Boston Marathon.” Each topic was analyzed to the latest post date from an earlier post date that either had relevance or provided sufficient data: Boston, April 15, 2013; Gamers, April 19 – April 25, 2013; Introductions, April 24 – April 30, 2013. Participants were not known by age, gender, or other demographics since postings were anonymous and profiles are password protected. Participants are free to read blogs and must sign up for membership in order to create topics or reply to posts. We did not sign up for the membership and used only open-sourced blogs.

Analysis

The text from each topic consisting of the original postings and replies was copied and pasted into three separate Word documents. The documents were then analyzed by the measurement tool Linguistic Inquiry and Word Count (LIWC), which measures the frequency of words based on four processes: social, affective, cognitive, and perceptual. A chi-squared test was used for each blog topic based on the four processes; a chi-squared test was then used for each blog topic based on the sub-processes for social and affective processes. The expected proportions were established by the LIWC measurement tool and used to compare the blog topics to a baseline of text from single-purposed websites.

Results

Each analysis included a word count, average words per sentence and percent of words larger than 6 letters long (presumably to show complexity of thought), and the proportion of words found in the LIWC dictionary (see Table 1). The blog text pulled from the Minecraft site is comparable with those sampled from all blogs in word complexity; however, with respect to word count, sentence complexity, and the proportion of dictionary words, the differences are great: our pull of blog texts is much smaller in two of the topics (i.e., Intro and Gamer) and greater in one (i.e., Boston); all 3 topics show sentence complexity at more than half the level of blogs in general; and the portion of dictionary words picked up by the LIWC measure is at most 11 percentage points less than those found in a random sample of blogs.

A difference in our samples to those of blogs in general is present when examining the percent of LIWC words found from the four processes of thought (see Table 2). Evidence of cognitive expression (e.g., insight or causation) is slightly less in blogs from the Minecraft site and that of perception (e.g., seeing or hearing) is considerably different. When examining the presence of social awareness, the blog postings from the topic of Introductions and the Boston bombing are similar in proportion to blogs in general; the blog topic on annoying gamers showed twice as many social awareness words than in general. When looking at a partial breakdown of the types of social awareness (i.e., family, friends, and humans), it shows that the largest difference (over twice that of general blogs) is in reference to humans on the topic of annoying gamers (see Table 3). In addition, affective processes (or emotional expressions) are more prevalent in the topic of annoying gamers, especially with respect to negative emotions and anger (see Tables 2 and 3). Contrary to an expectation of increased emotional expression, the blog posts on the Boston bombings are almost equal to those posts on general subjects; however, there was greater expression of anger and anxiety. As might be expected, there was a

considerably larger proportion of positive emotional expression when compared to the other blog topics and blogs in general and much less negative emotional expression.

Regardless of these differences and similarities in proportions to a random sample of blogs, the data shows that there is no significant difference ($p > .05$) in expressive language between each of the blog topics in the gaming environment and blogs in general (see Tables 2 and 3). The closest to a significant difference is from the annoying gamer blog, especially when referring to affective processes ($\chi^2 = .14$). The furthest evidence to a significant difference is from the introductions blog, especially with respect to social processes ($\chi^2 = .87$).

Table 1

Word Usage

	Blogs	Intro	Gamer	Boston
Word count (mean)	7,304	3509	2903	8143
Words/sentence	46.8	19.1	21.0	20.0
Words > 6 letters	14.1	15.3	16.9	16.8
Dictionary words	83.8	74.8	78.7	73.0

Table 2

Main Processes

Processes	Blogs	Intro	Gamer	Boston
Social processes	8.65	7.67	14.57	8.17
Affective processes	5.84	5.22	6.92	4.00
Cognitive processes	15.97	13.25	14.47	13.26
Perceptual processes	2.27	2.71	1.17	3.25
	Chi-squared test	.87	.18	.68

Table 3

Sub-processes of Social and Emotional Expressions

Social Processes	Blogs	Intro	Gamer	Boston
Family	0.38	0.00	0.14	0.06
Friends	0.25	0.34	0.10	0.04
Humans	0.79	0.51	1.86	1.14
	Chi-squared test	.77	.43	.74

Affective Processes	Blogs	Intro	Gamer	Boston
Positive emotion	3.72	4.36	2.82	1.92
Negative emotion	2.07	0.85	4.10	2.08
	Chi-squared test	.36	.14	.35

Negative Emotion	Blogs	Intro	Gamer	Boston
Anxiety	0.30	0.17	0.45	0.55
Anger	0.76	0.23	2.34	1.08
Sadness	0.42	0.06	0.83	0.15
	Chi-squared test	.69	.15	.77

Discussion

Our study sought evidence of social and emotional expression in blogs on multi-purposed websites (i.e., gaming and blogging). We expected to see no significant difference of social and emotional expression between blog postings from single-purposed websites (e.g., Blog.com or facebook.com) and those from multi-purposed websites. The social-emotional motive for participation in online blogs on multi-purposed websites appears to be supported by the data in our study. The postings in unsolicited samples from a multi-purposed website had no significant difference in showing social and emotional expression than postings on single-purposed websites. This suggests that participants use blogs in multiple types of websites and topics to express feelings of happiness or anxiety, anger, or sadness and connect socially with other participants on a human level.

Reasons for Contradictory Results

The proportional analysis of the data did yield some surprising results that could be due to the type of site used in the study. Participants of gaming sites tend to be young (ages 18 – 29) and male. In addition, several studies have shown that the majority of participants in blogs are female (Cole & Griffiths, 2007). This may explain the lower complexity of word use and increased social and negative emotional expression in the annoying gamers blog. Another unexpected result was from the Boston bombings blog and how relatively close the percent of expression in all 4 processes were to the random sampling of blogs, especially with respect to negative emotion (2.08% and 2.07%, respectively). This appears counter-intuitive since we expected this blog to show higher expressions of negative emotion due to the nature of the topic. However, the fact that the postings were taken from a 12-hour consecutive block of time on the day of the incidents may explain a typical emotional response. Participants may also have been in a grieving process, as evidenced by higher perceptual processing (3.25% and 2.27%, respectively) and lessened expressions of sadness (0.15% and 0.45%, respectively).

Social Validity

The social validity of (i.e., the benefit from) participating in online blogs was not evident in the data. Although this study did not look at the comparison, the breadth of the research supports the conclusion that the results indicate a significant difference in social-emotional interactions online versus face-to-face. This difference means that the participants would interact more socially and express more emotionally online than in face-to-face interactions (Cole & Griffiths, 2007; Lieberman & Goldstein, 2006; Seepersad, 2004), which leads to lower social deficits such as anxiety. Thus, by proxy, we could conclude the act of online blogging on multi-purposed sites has social validity.

However, benefits from blogging can only be realized if there is design and guidance. For instance, emotional expression should be elicited in a process of participants actively reading other participant's posts, receiving and giving emotional support through the blog, and posting about their own experiences (Lieberman & Goldstein, 2006; Ferdig & Trammell, 2004; Harper, 2005; Wang & Hsua, 2008). Although not measured, the posts used in this study did appear to follow the appropriate cycle in a blog. This was especially true in the Boston bombings blog since the 12-hours (or 30 pages) of postings were analyzed from the original post and the majority of the sequential posts consisted of replies to other participants posts, discussions of family members hurt in the incidents, and expressions of personal experiences or opinions.

Limitations

The methods in how we collected data may limit the results. The fact that the multi-purposed website was about online games may be examining a particular sector of the population. Also, because we had a restriction of open-sourced blogs, the scope of the data was limited. Most sites required membership, which means no access to user profiles (i.e., demographic data). This prohibits us from examining whether or not differences based on gender, etc., are significant. The anonymity of the participants also prohibited us from measuring the number of participants and delineating the frequency of posts and social and emotional expression by participant.

Future Research

Another theme that appeared in the research concerned the effect of blogging activities on those participants with social deficits. The affordances of blogs, for instance, could greatly benefit students with autism and emotional disabilities in communication skills, social perception, need for emotional expression, and reciprocal self-disclosure (Ellison & Wu, 2008).

This is supported by studies that show participants with social deficits respond positively to computer-mediated activities, such as blogging, which improves social interaction among students with or without social deficits (Jacklin & Farr, 2005). However, Seepersad (2004) found that many participants with possible social deficits who used communication with others in blogs as avoidance of negative feelings believed communication was not important. In addition, the fact participants with social deficits tend to not improve in communication skills when posting on social networking sites like Facebook (Hunt, Atkin, & Krishnan, 2012) indicates further research is needed to pinpoint the key elements to successful interventions for social deficits with Web 2.0 tools like blogs.

References

- Anderson, K. H. (2004). *Student's use of weblogs for collaboration in an educational setting* (University of Bergen). Retrieved October 14, 2007 from <https://bora.uib.no/bitstream/1956/1177/1/thesis-andersen.pdf>.
- Baggetun, R., & Wasson, B. (2006). Self-regulated learning and open writing. *European Journal of Education, 41*, 453-472.
- Cole, H. & Griffiths, M. D. (2007). Social interactions in massively multiplayer online role-playing gamers. *CyberPsychology & Behavior, 10*, 575-583.
- Downes, S. (2004). Educational blogging. *EDUCAUSE Review, 39*(5), 14-26.
- Dron, J., & Anderson, T. (2009). How the crowd can teach. In S. Hatzipanagos & S. Warburton (Eds.), *Handbook of Research on Social Software and Developing Community Ontologies* (pp. 1-17). Hershey, PA: IGI Global Information Science.
- Ellison, N., & Wu, Y. (2008). Blogging in the classroom: A preliminary exploration of student attitudes and impact on comprehension. *Journal of Educational Multimedia and Hypermedia, 17*(1), 99-122.
- Ferdig, R. E., & Trammell, K. D. (2004). Content delivery in the "Blogosphere". *T.H.E. Journal, 31*(7). Retrieved September 2008 from <http://ezproxy.lib.utexas.edu/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=eric&AN=EJ704748&site=ehost-live>.
- Fullwood, C., Sheehan, N., & Nicholls, W. (2009). Blog function revisited: A content analysis of MySpace blogs. *CyberPsychology & Behavior, 12*, 685-689.
- Harper, V. B. (2005). The new student-teacher channel. *T.H.E. Journal, 33*(3), 30-32.

- Hunt, D., Atkin, D., & Krishnan, A. (2012). The influence of computer-mediated communication apprehension on motives for Facebook use. *Journal of Broadcasting & Electronic Media* 56(2), 187–202.
- The John D. and Catherine T. MacArthur Foundation. (2006). *Confronting the challenges of participatory culture: Media education for the 21st Century*. Chicago, IL: Jenkins, H., Clinton, K., Purushotma, R, Robison, A. J., & Weigel, M.
- Kop, R., & Hill, A. (2008). Connectivism: Learning theory of the future or vestige of the past? *The International Review of Research in Open and Distance Learning*, 9(3). Retrieved November 7, 2009, from <http://www.irrodl.org/index.php/irrodl/article/view/523/1103>
- Lieberman, M.A. & Goldstein, B.A. (2006). Not all negative emotions are equal: The role of emotional expression in online support groups for women with breast cancer. *Psycho-Oncology*, 15, 160-168.
- Luckin, R., Clark, W., Graber, R., Logan, K., Mee, A., & Oliver, M. (2009). Do Web 2.0 tools really open the door to learning? Practices, perceptions and profiles of 11-16-year-old students. *Learning, Media and Technology*, 34(2), 87-104.
- McKenna, K.Y.A., Green, A.S., & Gleason, M.E.J. (2002). Relationship formation on the Internet: What's the big attraction? *Journal of Social Issues*, 9, 31–58.
- Richardson, W. (2006). *Blogs, wikis, podcasts, and other powerful web tools for classrooms*. Thousand Oaks, CA: Corwin Press.
- Seepersad, S. (2004). Coping with loneliness: Adolescent online and offline behavior. *CyberPsychology & Behavior*, 7, 35-39.

Siemens, G. (2005). Connectivism: A learning theory for the digital age. *International Journal of Instructional Technology & Distance Learning*, 2(1):

http://www.itdl.org/journal/jan_05/article01.htm

Schmitt, K. L., Dayanim, S., & Matthias, S. (2008). Personal homepage construction as an expression of social development. *Developmental Psychology*, 44(2), 496-506.

Wang, S., & Hsua, H. (2008). Reflections on using blogs to expand in-class discussion. *TechTrends: Linking Research and Practice to Improve Learning*, 52(3), 81-85.

Watson, J. (2007). A national primer on K-12 Online Learning. *iNACOL*. Retrieved November 5, 2009, from http://www.nacol.org/docs/national_report.pdf.