

Designing Social Presence in an Online MIS Course: Constructing Collaborative Knowledge with Google+ Community

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Abstract: This study was conducted at a public regional undergraduate college that offered 35% of its courses entirely online in Fall 2014 and projected offering more online courses in the future. The author explored, based on the Community of Inquiry (CoI) model (Garrison, Anderson, & Archer, 1999), how best a Management Information Systems (MIS) course could be designed and delivered entirely online. The CoI model stipulates that social presence – *participants' ability to project themselves socially and emotionally as "real" people through the medium of communication used* – is a critical component for an online course to be a success, along with cognitive and teaching presences. In order to facilitate meaningful multi-media interactions among participants, multiple web platforms including Google+ community were integrated into the course. Many students had not been familiar with Google+, nor had they created a website, before this class. Students' feedback indicated their perception that using Google+ community and creating their own websites created a positive synergic effect and clearly established their social presence in the online course. (169 words)

Introduction

Online course offerings in higher education are on the rise in the United States (Allen & Seaman, 2014). This study was conducted at a public regional college that offered 35% of its courses entirely online in Fall 2014 and projected offering more online courses in the future. The college offers distance learning programs to both remotely located students and regular students on campus, as well as online bachelor's degrees in several disciplines. This paper reports how the author, as course instructor, designed and delivered a Management Information Systems (MIS) course entirely online based on the Community of Inquiry (CoI) model (Garrison, Anderson, & Archer, 1999). The MIS course is an introductory information systems (IS) course that aims to prepare students to successfully participate in IT-enabled, rapidly changing business environments.

While preparing the course, the instructor explored how best to facilitate meaningful interactions between teacher and students, students and students, and students and content in online learning spaces, and how to best design an easy-to-use, dynamic, interactive learning environment whose cost would be low and whose use could be learned quickly by both the instructor and students. Many of today's students are members of "Generation Facebook" (Koroleva, Brecht, Goebel, & Malinova, 2011), whose social

lives are deeply influenced by the pervasive popularity of social platforms such as Facebook, Youtube, Pinterest, Twitter, and Instagram. Online learning spaces should be in line with the communication modes to which these students are accustomed. The instructor's exploration resulted in the integration of the Google+ community social networking site (SNS) into the MIS course.

Online Learning Community of Inquiry (CoI) Framework

The instructor used the *online community of inquiry (CoI)* model proposed by Garrison, Anderson, and Archer (1999) as a guide to design the online MIS course. The CoI framework has been extensively discussed in the distance education literature for the last decade, and its effectiveness has been empirically supported by various studies (Joo, Lim, & Kim, 2011; Rourke, Anderson, Garrison, & Archer, 2007; Swan, 2001; Swan & Shih, 2005). Garrison, Anderson, and Archer developed their online learning community of inquiry model based on Dewey's (1933) concept of practical inquiry and Lipman's (2003 [1991]) community of inquiry (CoI) theory. Garrison et al. take the position that a community of inquiry is essential for deep and meaningful educational experiences. Underlying the CoI model are social cognitive learning theories (Bandura, 1986) that suggest that learning happens in social context, and that continuous interactions between cognitive, behavioral, and contextual factors result in a person's ability to function in a given environment. In this view, learning is not the fixed regurgitation of facts delivered by an authoritative figure such as a teacher in a classroom. Rather, learning takes place as a product of all the factors involved in the learner's environment.

Garrison et al. (1999) analyzed texts generated in computer conferencing to identify what supports a worthwhile educational experience. They proposed that "learning occurs within the Community [of Inquiry] through the interaction of three core elements" (p. 88): cognitive presence, social presence, and teaching presence (Figure 1).



Figure 1. Elements of an educational experience (Garrison et al., 1999, p. 88)

Social presence, the focus of this study, concerns how much participants in the CoI can project and present themselves as “real people” and develop personal and affective relationships. This is an important element especially for an online community, as they interact in a virtual world where the physical presence is absent. Garrison et al. (1999, p. 99) identified three categories of social presence: *emotional expression*, *open communication*, and *group cohesion*. The three categories are closely related to learners’ task motivation and persistence. When participants find the CoI more enjoyable and personally fulfilling, the chances of their remaining in the community will be higher. From this perspective, social presence directly contributes to the satisfaction and the success of the CoI’s participants (Rourke et al., 2007; Swan & Shih, 2005). Social presence may be developed through discussion, encouraging positive mutual feedback among participants (emotional expression), working toward a common goal such as a group project (group cohesion), and sharing knowledge (open communication). Such collaborative experiences are expected to deepen the participants’ understanding of the subject matter.

On collaboration. Garrison et al. (1999) emphasize the importance of collaboration in learning. Today, as we move away from the industrial-age learning and teaching model that subscribes to the notion of knowledge transfer from one entity to another, collaborative learning and making space for knowledge creation are taking on pivotal roles in education. The authors cite Schrage (1995) to make this point: the “act of collaboration is an act of shared creation and/or shared discovery” and the difference between collaboration and common information exchange is “the difference between *being deeply involved in a conversation* and lecturing to a group. The words are different, the tone is different, the attitude is different, and the tools are different” (Schrage, 1995, pp. 4–5, cited by Garrison et al., 1999, p. 95; italics mine). In order to create a meaningful collaborative space, the design of online courses needs to choose a platform where participants can become *deeply involved in conversation*. The construction of meaningful collaborative knowledge will occur only if this type of discourse is ensured a safe space, where participants’ existing knowledge can be freely expressed and shared.

Course Design

The course was conducted asynchronously. It deployed four different platforms including the university system’s existing Sakai-based Lulima course management system (CMS). The purpose of this decision was to create more dynamic, interactive, two-way communication among participants, and to create a user-friendly, interactive, multi-media learning environment. In addition, the use of the other platforms contributed to a more appropriate online learning environment for the subject matter, MIS, in which technology is the focus and students learn how technologies intersect with organizations and society. Deploying different platforms exposes students to more diverse learning experiences than using only one platform. The instructor decided to design the course materials and the virtual classroom by assigning distinct functions to each of four different platforms: Lulima, an MIS course website, Google+ community, and Pearson’s MyITLab, where students could independently learn how to use Excel spreadsheets at their own pace.

Laulima was the entry point for students to access all relevant sites for the course. The Laulima platform was primarily used for unit tests and grade posting, and official and important announcements. Google+ community was where students would engage in class discussions, make links to their web pages for their reflection blogs, and present their collaborative group work. A course website was developed as a course organizer, and lecture videos, syllabus, course schedule, assignment details, and so on were posted on it. The course schedule website included hyperlinks to respective platforms to allow students' easy navigation of the four platforms used in the course.

The first two weeks of the course were spent building and populating the Google+ community. Each student created a personal Gmail account and joined the Google+ community. Students also created a website. The website URL was linked from Google+ community. The website was used as a platform where students posted their seven blog entries on the course materials over the semester.

Google+ community. Google+ is the second-largest social networking site in the world, with 300 million active daily users (Ramos, 2014). The Google+ site for the MIS course was made an invitation-only private community. Google+ allows users to create a community that is private and not searchable (Figure 2). Only the instructor and students could become members of the course's Google+ community. The Google+ site was used for discussions, the links to the students' websites, and students' questions and thoughts related to the lecture videos, group project-related postings, and announcements of a social nature such as internship opportunities and workshops. The students made links to their website URLs under a "self-introduction website links" tab on the Google+ community site (Figure 3). They posted their subsequent bi-weekly blog entries on their individual websites.

Five discussion topics were introduced. Students watched the video on a topic and answered guiding questions pertaining to the video; they were also encouraged to write about any thoughts associated with the topic. All members of the community could freely post comments and respond. Furthermore, as soon as a post was made, all members were notified in the Gmail social inbox. This function turned out to be particularly useful for the instructor, facilitating her ability to give as much feedback as possible on students' postings.

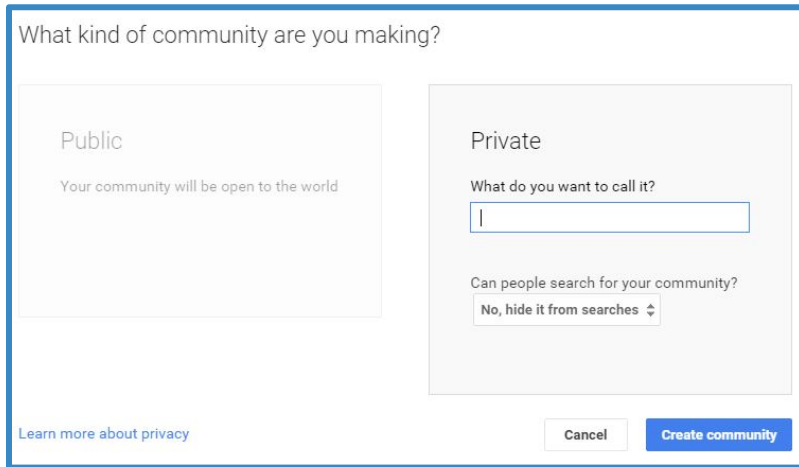


Figure 2. Private setting of Google+ community

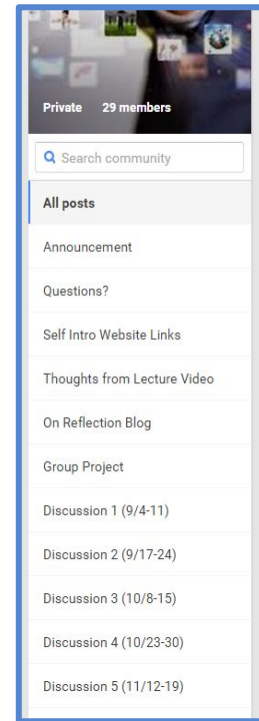


Figure 3. Tab menus in the Google+ community

Results

Sixty-two students started the MIS course in two sections, and fifty-seven successfully completed the course. The first assignment was to join the Google+ community and to create a website. Sixty students completed the website creation assignment by the third week of class and made a link to their website on Google+ community. On their websites, all students wrote a self-introduction.

Students were asked to make comments on two classmates' websites that were created after their own. The instructor made comments on every student website. A thread was created for comments on each student website in Google+. Many students indicated that this was the first time they had made their own website, that the process was enjoyable, and that they were amazed at how easy it was to create a website. Writing about themselves on their website established their identity in this online learning community. Each student became a "real" person by posting about him/herself. They wrote about their likes, dislikes, about family, pets, jobs, and their experiences. It showcased who they were beyond being merely a student. This website assignment truly helped make the online class into a cohesive community, and a place where students could freely express their opinions.

One of the discussion topics was on how radio-frequency identification (RFID) is used in our lives. They learned that RFID is most commonly used in ID cards, especially in the military, through the discussion and sharing their experience and knowledge. Such aspects of the students' new findings or new knowledge could only have been

constructed by the collaborative nature of the discussions in the Google+ community. Google+ was populated by the students' and the instructor's postings. Participants shared their thoughts and experiences, and exchanged questions. The number of discussion comments posted on Google+ over the 15-week semester was 655, which means that every student posted about eleven comments. An online learning community was indeed formed in this way.

Furthermore, most students exceeded the instructor's expectations on their blog posts' length on their website. Many wrote more than a half page in order to finish a narrative, and some inserted pictures and links to other websites into the blogs. It was as if they had much to tell and wanted to show off how much they knew about the subject. What the instructor witnessed in the Google+ comments and blog postings on their websites was strong social presence, just as Garrison et al. (1999) described it: open communication, emotional connections, and group cohesion around the subject matter – technology use in various aspects of organizations and society.

Discussion and Conclusion

This study used the Community of Inquiry framework (CoI) as a guide to create an MIS online course for undergraduate students at a regional college. In the CoI framework, three elements – cognitive, social, and teaching presences – are the theoretical pillars of a successful online course. The course outcomes successfully demonstrate how an MIS course can be designed and delivered online based on the CoI model. This study demonstrated how a Google+ social networking site can be effectively used to promote the students' social presence in an online course. The use of Google+ enhanced participants' open communication, created positive affect in the learning space, and gave participants a strong sense of cohesion as a learning community. The students' websites and Google+ had synergic effects on their social presence.

It is also worth pointing out that not every student is a member of the Facebook generation, regardless of age; not all of them are familiar with all of the currently popular technologies. This is especially true of students from underserved communities. For this reason, it is critical for the success of the students that the instructor and the institution provide a variety of resources where students can find the answers they need, including access to the instructor in different modes, such as face-to-face office hours, telephone appointments, chat hours, video-conferencing, and email.

In conclusion, this study showed that the students' creation of social presence was strongly supported by carefully designed use of Google+ in an online MIS course. Participants shared their experience and collaboratively created new knowledge on the discussion sites. This in turn engendered a strong sense of a learning community, where open communication, emotional connections, and group cohesion around subject matter were present. These elements are critical for an online class to be a success.

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