EXPLORING SOCIAL PRESENCE IN ASYNCHRONOUS TEXT-BASED ONLINE LEARNING COMMUNITIES (OLCS)

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Abstract

This paper reports the findings from a longitudinal case study at University of York, UK. It aims to investigate the development of social presence among online members in text-based online learning environment. The transcripts from the electronic bulletin boards posted by online students and tutors in Health Economics for Health Care Professionals by Distance Learning Programme were studied using a research technique called content analysis. The findings from this study suggest that students and tutors in this programme employed different types and exhibited different degree of social presence when communicating in OLCs. However, similar patterns of social presence were found in each group of online participants.

Introduction

The role of educational institutions and educators in constructivist student-centred model is to provide students the learning environment that encourages critical reflection and knowledge construction through social interaction with other participants in a learning community (Palloff & Pratt, 1999). Facilitated by modern technologies, such as CMC, the concept of learning community, or community of learners (Brown, 2001; Wegerif, 1998), is recently applied to online settings known as online learning communities (OLCs).

The notion of learning community is constructive. Research shows that strong sense of community not only increases persistence of students in online programmes, but also enhances information flow, learning support, group commitment, collaboration, and learning satisfaction (Dede, 1996; Wellman, 1999).

From the literature, one of the important factors related to sense of community is social presence (Rovai, 2002). According to Garrison and Anderson (2003), the formation of community requires a sense of social presence among participants. As they state, "it is inconceivable to think that one could create a community without some degree of social

presence" (Garrison & Anderson, 2003, p. 49). Social presence is a significant factor in improving instructional effectiveness (Tu, 2002), encourage learning satisfaction (Gunawardena & Zittle, 1997; Hackman & Walker, 1990), initiate in-depth discussions (Polhemus et al, 2001) and promote collaborative learning (Gunawardena, 1995). In contrast, the lack of social presence can lead to more frustration and less affective learning (Rifkind, 1992).

This paper investigates the development of social presence among online members of a text-based OLC using a longitudinal study to provide a more comprehensive understanding of the patterns of change over time. The paper examined an OLC that uses asynchronous text-based CMC as the tool because this technology is widespread and commonly available. The high level of social interaction and affective communication needed in OLCs is also possible using this technology. However, the study of social presence in these settings is in its early stages and requires further exploration.

The Case Study

The case study was conducted with students in Health Economics for Health Care Professionals by Distance Learning Programmes based in York, UK. The programme, both Postgraduate and Diploma levels, was based on learning modules comprising 5 or 6 individual study units. There were also residential workshops for each module run in York where students could take part in seminars and lectures, and meet other colleagues. The first workshop was compulsory while the remainder were optional.

The number of students ranges from 13 to18 in each module. They are typically mature students who are working full time. Their academic qualifications range from bachelor's degree to PhD in health care, health economics or related fields. Online tutors are different from module to module and there are 4 tutors in average, including programme secretary and a module leader, in each module. During the programmes, most communication and collaboration among participants occurred through electronic bulletin boards provided by WebCT$^®$ learning platform.

Methodology

The conferencing transcripts from the electronic bulletin boards posted by online students from 2 cohorts, 2001 and 2002 academic years, were studied. Each cohort was composed of 4 modules to complete the Postgraduate Certificate level. The total 1,296 transcripts throughout 8 modules were coded using the messages posted by the participants to the

bulletin boards as the unit of analysis. There were 548 messages in 2001 and 748 messages in 2002 respectively.

The study used a technique called content analysis. The transcripts from the bulletin boards were made anonymous and coded by 2 coders to capture social communications among online participants. The coded transcripts were then stored in an electronic format using ATLAS.ti® which allowed coders to access and update them. Internal reliability tests were conducted using percentage agreement between raters to establish the reliability of the coding procedures. The aggregate interrater reliability for conferencing transcripts of both 2 cohorts was 96%. In coding processes, each message from the bulletin boards was reviewed and coded according to social presence template adapted from Rourke et al (2001) and Swan (2002).

Online Students: The Presence in OLCs

According to the template, 3 categories, affective responses, cohesive responses, and interactive responses, were used to describe social presence elements in text-based communication among online students. Similar patterns of social presence were found in both cohorts of the programme. Affective responses, communications influenced by emotion and feelings, were highest in the first module and then declined gradually over the next modules. Throughout the programme, the expression of personal values was the most frequent compared to other affective communication such as the use of emotion, self-disclosure and humour. In fact, discussions in learning communities where students can exchange their personal views and ideas allow them to convey socio-emotional contents and create social identities in OLCs.

Nonetheless, while affective responses were most frequently employed in the first module, social cohesion seemed to require more time to establish in OLCs as cohesive responses, communications resulting from group cohesion and a sense of community, were used most frequently in the second or third module. Once they reached the peak level of usage, cohesive responses decayed slightly over the next modules until the end of the programme. Based on the findings from both cohorts, the use of salutation/closure was the most basic cohesive indicator. In addition, the use of inclusive pronouns such as we, us, our, and the use of vocatives to refer to other class members by name were also commonly found in students' messages throughout the programme.

Finally, interactive responses, communications influenced by interactivity among participants in OLCs, also reveal some similar patterns although they are not obvious compared to the previous social presence categories. In both cohorts, it seemed that acknowledging others' messages and

making inquiries were the most frequently used interactive responses by online students in this programme. Expressing acknowledgement to others' posted messages and seeking help from other participants served as a basic interactive response in students' messages showing that they were still attending in the class discussions.

Online Tutor: The Presence in OLCs

Like those of students, 3 social presence categories, affective, cohesive, and interactive responses, were used to describe social presence elements in text-based communication by online tutors. However, because the tutors changed from module to module, social presence could not be compared to track the development across modules.

Although communication in computer-mediated learning environments seems to suffer from a lack of co-presence and non-verbal cues, online tutors regularly imparted emotional contents in their messages in order to establish a rapport with their students and create a positive learning environment. Although the tutors differed from module to module, the results show that the online tutors expressed their affective communication in the same manner. Compared to the use of personal values, humour, and self-disclosure, the use of emotion and feelings by online tutors was most frequent in every module throughout the programme.

In online learning environments, moreover, the use of cohesive responses by online tutors can reduce social distance between them and their students hence enhancing teacher immediacy. The findings from both cohorts show that online tutors regularly used salutation and closure in their messages. However, unlike affective responses, the results reveal that other cohesive responses such as vocatives, group reference, and phatics were used differently by online tutors in each module depending on their preferences and teaching styles.

Finally, based on the concept of social constructivism (Vygotsky, 1962), students can achieve higher cognitive levels through interactions with other more advanced peers. In OLCs, through interaction and involvement with online tutors, students are able to develop not only cognitive aspects of learning, but also social cohesion in learning communities. The findings also reveal that online tutors in this programme expressed their interactive responses in quite the same way. Providing students with help and learning assistance was regularly found in tutors' messages and it seemed to be the most fundamental social presence element indicating interactive behaviour by online tutors throughout the programme. Although less frequent, acknowledging and complimenting messages posted by online students was also typical in tutors' messages.

Discussion and Conclusion

The findings from both cohorts allow the authors to understand the roles of social presence in online learning environments. In particular, they provided a clearer picture of how online participants projected their presence across distance and time using text-based communication.

The facts that affective responses were used most in the first module provide evidence that students in an online class need the highest level of affective communication in the early stage of community building. In the first module, students started to discover each other and establish their social connections. Affective responses, such as personal values and emotion, served as an important tool that allowed them to create their social presence and identity in OLCs. After the first module, however, affective communication seemed to be less necessary for online students in this cohort as the usage declined.

Moreover, the findings reveal that cohesive responses used by online students in this cohort were highest in the second or third module of the programme. In fact, people need some time to develop a sense of group cohesion in a community, especially in an online context. Once the community was formed, it seemed that the use of cohesive responses became less important. Studies by Rourke et al (2001) and Swan (2002) also supported these findings. In addition, the duration that each community needs to create a sense of community among participants can be different from one to another. Some communities are quite easily to get to know each other and build social cohesion among members while some communities may need a bit more time to do so.

However, participants in this programme also expressed and conveyed their presence in different ways based on their roles in OLCs. In affective response category, for example, emotion was the most frequently used affective communication by online tutors in every module. This reflected the role of online tutors as learning facilitators who attempt to build a learning environment that fosters constructive discussions and promotes positive attitudes toward learning. Online students, on the other hand, usually expressed or exchanged their personal values that imparted affective communication with the aims to create emotional learning, build social identity and gain new knowledge.

Moreover, to express interactive communication, online students seemed to make an inquiry quite regularly to seek an clarification, information or advice from other participants in OCLs, while online tutors tended to use provide learning support and attempt to elicit active participation from students in this environment.

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