Avatars: Usefulness in Collaborative Online Learning Environments

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Digital technologies that enhance computer-mediated communications are provoking change in the way educators interact with learners. As online course offerings expand and enrollment numbers increase, the challenges of effective online learning call for innovation and creativity. It is beneficial to introduce activities which establish trust and engagement in online learning communities. This paper describes the positive effects of an avatar activity that engaged the authors and their peers during two graduate-level collaborative online classes.

Introduction

Digital technologies, particularly those which support computer-mediated communications, are changing the way educators interact with their students. According to a recent Sloan Consortium report, more than a quarter of students take at least one online course and enrollments are estimated to be growing 17% per year in the United States (Allen & Seaman, 2010). As enrollment in online courses increases, the pairing of technology and pedagogy calls for unprecedented and transformative innovation. Online undergraduate and graduate courses were first available in the mid-1980s and, although online education has come a long way, research into effective online instructional practices is ongoing (Downes, 2005; Garrison, 2004; Harasim, 2000). This unique digital age calls for creativity in exploring effective tools to enhance student learning.

There are three interaction models instructors may use, or combine and use, when designing online courses: student-student, student-teacher, or student-content. Anderson's equivalency theorem (2003, 2010) suggests that meaningful educational experiences can occur as long as one of the three

interactions is at a high level and that the student-student model is most appropriate for collaborative environments. In order to enhance collaboration and idea sharing among peers in environments where face-to-face encounters are unlikely, the need for trust in peer relationships and a connection to a course community must be established (Krejins, Kirschner, & Jochems, 2003; Murphy & Cifuentes, 2001; Smith, 2008). An activity to facilitate these interactions should be structured into the course design. This is especially true because online learners, especially novice online learners, may not bring these skills with them and can feel overwhelmed in new digital learning environments (Kehrwald, 2008). Creating an activity that can facilitate student-student trust and connection in the community is an important component of a well-designed online course.

Prompt for This Paper

This paper describes our positive experiences during avatar activities that engaged us and our peers as students in two separate collaborative online graduate-level courses. Although we both had previous online learning experiences, neither of us had physically met any of our online peers from the classes in which the activities occurred. During both courses, we found the trust and community-building activities to be beneficial to our learning.

An examination of the literature revealed a number of studies about avatar use in collaborative virtual environments, such as Second Life (Yee, Bailenson, Urbanek, Chang, & Merget, 2007; Yee, Bailenson, & Ducheneaut, 2009); however, a search for studies on the direct benefits of avatar use in online educational environments yielded little. An initial exploration into the effects of avatar use in online learning environments was the objective of this investigation.

Avatar Activity

In virtual environments, avatars are users' visual representations of themselves. They tend to be digitally created and may or may not appear human. Avatars, it has been suggested, "can promote co-presence by providing an easily identifiable presence while engaging in online activities and discussions" (Harms, Niederhauser, Davis, Roblyer and Gilbert, 2010, p. 80). We were involved in our avatar activity as both facilitators and participants. We presented the class with a list of character creator websites, encouraged everyone to create self-representative images, and assisted our peers in uploading their images to our online discussion forum. Amidst the regular course-specific discussions that occurred that week, we also instructed the class to comment on each other's images. The following websites were provided for the creation of student avatars:

- South Park Studio – http://www.sp-studio.de/
- Lego Creator – http://devbook.com/charactercreators/lego
- Spore Creature Creator – http://spore2d.com
- Picasso Head Creator – http://www.mrpicassohead.com/create.html
- Madmen Yourself – http://www.amctv.com/originals/madmen/madmenyourself/
- The Hero Factory – http://cpbintegrated.com/theherofactory/
- Female Superhero – http://ammotu.deviantart.com/art/Super-Character-Creator-Female-66610994
- Male Superhero – http://ammotu.deviantart.com/art/Super-Character-Creator-Male-67189399
- Sonic Creator – http://devbook.com/charactercreators/sonic/
- Simpsons Avatars – http://www.simpsonsmovie.com/main.html

The avatar discussions facilitated opportunities to share personal information and engage in conversations about common interests. The posted representations were detailed and varied. Most of the character creator programs also provided options to include artifacts that represented personal preferences

and interests such as animals, hobbies, environmental settings, gadgets, and clothing. For example, Figure 1 displays avatars and artifacts created using South Park Studio. Our activity was well received and high levels of participation occurred throughout the week.

Social Presence Benefits

In online classrooms, relationships exist between social presence and student satisfaction, as well as online interactions and the quality and quantity of learning (Lowenthall, 2009). Interestingly, the quantity or frequency is not as important as the quality of interactions (Lowenthall, 2009). Social presence can be explained as students' perceptions of being in, and belonging in, an online course (Picciano, 2002, in Lowenthal, 2009). In the case of the avatar activity, we perceived that social presence was enhanced by introducing ourselves through meaningful personal characteristics. We shared tidbits of our lives beyond the classroom and enjoyed the opportunity to play together as a class.

Following the activity, in addition to seeing names on our course management system, every student was also identifiable by a unique visual representation. These visuals provided us with constant reminders of the interests and personalities of peers accessible to us only through our computer screens. Many online educators use a Week 1 "Introduce Yourself" discussion forum to allow students to share information about themselves and their interests (Bonk, Wisher, & Lee, 2003). This activity took the sharing one step further.

As Kerhwald (2008) explains, social presence research can be analysed through two lenses: the Media Richness View and the Relational View. Daft and Lengel's Media Richness Theory (1986) examines the effectiveness of media to convey face-to-face characteristics such as video communications. The relational view sees the communication as dependent on the participants and therefore dynamic (Kerhwald, 2008). The avatar activity both increased the use of media found within our course and helped us to relate to each other as participants, as engagement was personalized.

Figure 1
Sample Avatars

Online Trust and Connectedness Benefits

For many students, it is uncomfortable to rely on peers for academic success. Students may wonder if their individuality will be compromised and if their fellow group members have the abilities, integrities, and concerns for benevolence required to safely enhance both group and individual successes (Smith, 2008). Ability and integrity-related issues may become moot through program or course admission procedures; however, concerns for group benevolence are harder to relieve. Concerns over others' commitments to group benevolence may decrease considerably when group members trust and feel connected to each other (Murphy & Cifuentes, 2001; Osterman, 2000). Online student interactions can benefit from personal sharing exercises intended to create social connections. A study undertaken by Dennen (2001), for example, concluded that effective online moderators include personal anecdotes and icebreaking activities (Bonk et al., 2003). Activities designed to facilitate these personal interactions in non-threatening ways are key to the success of online learning.

Developing communities, however, is easier said than done. Activities designed to allow students to introduce and share personal information during the first week of the course is a good way to start building communities. Yet, the information shared by peers at this early stage of the course is likely to be surface level information; students do not necessarily enter a course assuming that their peers' abilities, integrity, and commitment to benevolent gestures are worthy of their trust or conducive to establishing connections.

In addition to introductory discussion boards, commonplace in online learning, there are many other interactive technologies which could be implemented to support student-student interactions. The problem, however, is that social interactions do not naturally occur simply because the infrastructure exists which makes it possible. There is a tendency for students to focus their interactions on improving cognitive processes, while "social interventions aimed at socio-emotional processes are ignored, neglected or forgotten" (Krejins et al., 2003, p. 336).

The avatar activity encouraged student-student interactions by drawing upon personal experiences and interests and specifically dedicating small amounts of time to peer socializing. Kehrwald (2008) posits that these types of experiences characterize social-relational constructs and create opportunities for "trust, respect, rapport, and empathy" (p. 98). By creating opportunities for students to create social-relational constructs in online learning environments, personal risks are minimized because students choose which experiences they wish to share and look for common interests upon which to base their sense of belonging.

The avatar activity built online trust and a sense of belonging for both authors. As avatars appeared during the activity, it was interesting and engaging for us to view our peers' representations of themselves, and intriguing to look for commonalities in artefacts of interest. We were better able to identify our peers during the rest of the course and believe that the avatar representations allowed us to build confidence in further collaborative efforts.

Conclusions and Next Steps

In this challenging digital age, the pairing of fast-changing technology and pedagogy provokes educators to explore creative teaching by engaging effective new methods. Recognition of the importance of social presence, and the building of trust and a sense of belonging in online course design, can positively affect the quality of students' learning experiences. Social presence can be supported by both the increased use of media and students' participation. Online trust and connection do not happen by chance, but rather require careful course design. Although other processes to promote social presence might be equally effective, introducing an online avatar activity is simply one of many tasks that appear to enrich students' learning experiences by building trust in an online community. We found this activity useful and believe it enhanced our learning experiences. Further studies that involve the systematic collection of student feedback and differences in effectiveness across various student demographics are recommended.

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Biographies

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