Creating participatory online learning environments:  
A social learning approach revisited

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Abstract: Online learning has never been more popular than it is today. Due to the rapid growth of online instruction at colleges and universities, many questions about the effectiveness of online courses have been raised. In this paper, we suggest guidelines for the selection and application of social media tools. In addition to describing the potential implications of social media integrated into online learning environments (OLEs), this paper also presents new and established best practices to stimulate meaningful social interactions in OLEs. We propose five essential instructional strategies used in combination with social media tools for creating participatory OLEs. Drawing from the relevant literature in this area, we suggest a new framework that includes planned social interactions, collaborative activities, real-life context, learner reflection, and assessment of participation to create a successful online learning experience for students.

Introduction

Online learning has never been more popular than it is today. With the surge of new educational platforms such as massive (and little) open online courses (MOOCs and LOOCs) and online degree offerings, online learning environments are a booming frontier in education. Online learning environments, sometimes called OLEs, consist of an instructional delivery system that allows students to participate in an educational opportunity without being physically present in the same location as the instructor (Johnson & Aragon, 2003; Richardson & Swan, 2003). More and more academic institutions today are considering online learning as the preferred learning medium to be able to reach more learners (Yu, Tian, Vogel, & Chi-Wai Kwok, 2010). In higher education, it is a growing trend to offer courses that were previously only available as in-person online, and to offer completely online degree programs where a student does not have to step foot on the campus once to participate. One of the drivers behind this movement is to expand access to education for new learners, and in part to increase revenue for higher education institutions (Richardson & Swan, 2003). Also, there is thought to be value in the convenience of offering learning online where students can participate anytime, anywhere (Ginns & Ellis, 2007; Johnson, Aragon, & Shaik, 2000; Neuhauser, 2002; Richardson & Swan, 2003; Summers, Waigandt, & Whittaker, 2005). Although much of the research in this area is inconclusive, it is thought that there is little to no difference between the two types of learning environments—face-to-face versus online (Moore & Kearsley, 2011; Swan, 2003). Therefore, those responsible for designing instruction at universities such as instructors, instructional designers, and teaching assistants, have been responding to this shift to online classrooms by attempting to integrate more innovative technology into their curriculum. As a result, practitioners and researchers are continuously exploring ways to create thriving online learning environments with participative social interaction that contributes to acculturation and positive learning outcomes (Yu et al., 2010).
The Problem: Learning in Isolation

Due to the rapid growth of Web-based instruction, many questions about the quality of the learning experience in online courses have been raised. Often, when instructors are tasked with creating OLEs, the focus is mainly on the technology (Brown, 2000; Johnson & Aragon, 2003) and not the pedagogy of fostering sound instruction (Alonso, López, Manrique, & Viñes, 2005). Despite the notion that tools currently used to host and facilitate learning activities in an online environment are more advanced than they have ever been before, it isn't enough to rely on the technology to create meaningful, deep learning experiences that positively impact learning outcomes (Garrison & Cleveland-Innes, 2010). Additionally, instructional design models commonly used to create online learning content, albeit flexible, i.e., Gagné’s Nine Events (1985), Merrill’s First Principles (2002), and Keller’s ARCS Model (1987), are not contemporary enough to account for the recent innovations of the technology. Furthermore, there is a body of literature that indicates that potentially one of the most important aspects that naturally occurs in face-to-face classes but is often missing from OLEs is the social context of learning (Garrison & Cleveland-Innes, 2010). Today's learners are able to participate in classes from anywhere in the world. There is a growing student population that will participate in enough classes to earn a degree, yet never meet their classmates or instructors in person. With this developing trend, instructors need to be concerned about learner isolation, which can lead to bored, frustrated, or disengaged learners. To prevent or reduce feelings of isolation, OLEs should be designed to promote social interaction, which happens naturally in face-to-face classrooms. In either learning environment, it's critical that students have an active social presence and engage in prescribed interactions directly tied to the course's learning goals.

There is a sizeable collection of literature that suggests that social presence and interaction is the most vital component of a successful online learning experience for students (Garrison & Cleveland-Innes, 2010; Hrastinski, 2009; Huang, 2002; Martin, Parker, & Deale, 2012; Tu, 2002; Wegerif, 1998). Recent research has demonstrated that the lack of social connections not only affects student learning outcomes, but also their relationship with the instructor (Richardson & Swan, 2003). In a study conducted by Garrison and Cleveland-Innes (2010), social interaction and a sense of belonging were reported as the most important factors according to students. Accordingly, Huang (2002) discusses the negative consequences of students not having adequate connection with the instructor in an online course can lead to feelings of isolation. Hrastinski (2009) concludes that social interaction through active participation and learning are inter-related; without one, the other factor doesn’t exist in OLEs.

According to Bandara (1977), learning by nature is a social activity where learners are able to interact in ways that stimulate the learning process. During the learning process, students use informative feedback from social interactions to "develop thoughts or hypotheses about the types of behavior most likely to succeed" which in turn guides their future behavior (Bandura, 1977, p. 3). In a social learning system, people learn more quickly and without unnecessary negative consequence through observation and modeling (Bandura, 1977). According to Vygotsky (1978), learners can accomplish more through collaborative activity with other learners. Additionally, the social nature of learning pushes learners beyond their existing developmental level, beyond the levels of development they could achieve independently (Vygotsky, 1978). In social cognitive theory, an extension of social learning theory, observation, modeling, and proximity to other learners are important instructional elements (Bandura, 1986). Of equal importance are social interactions in instructional settings that establish clear benefits of learning, promote learner self-efficacy and self-regulation, and support learners in setting realistic learning goals (Bandura, 1977, 1986; Zimmerman, 1989). As such, we believe that these constructs of social learning theory and social cognitive theory are especially relevant in online classrooms and can be achieved through strategic curriculum design and the social collaborative features of social media technologies.

The Solution: Part A - Technology & Tools

In pop-culture, social media refers to the advancement of Internet technology and applications including blogs, wikis, RSS and social bookmarking (O’Reilly, 2007). Social media, also known as Web 2.0 tools, when used effectively in designing online classroom experiences, could drive participatory learning by facilitating student interaction in a social way. Social media technologies provide numerous social features that can enable interactive social experiences that mimic traditional face-to-face experiences such as student-led discussions, collaborative group work and resource-sharing (Wang, 2011). Social media has shown the ability to facilitate observation, modeling, and proximity to other learners, something that is naturally present in face-to-face classrooms. Through text, pictures, and videos, learners can connect with others in a way that is authentic despite not physically being in the same location. Through social media it is practical for peers and instructors to interact regularly, just as they would in a traditional classroom, only through technology. As such, it is foreseeable for social media to enable all
aspects of social learning, such as engaging in constructive dialogue, modeling new behaviors, demonstrating new skills, collaborating on assignments, and providing supportive coaching and feedback. How different social media tools can be used in an online environment to promote participatory learning is described in Table 1.

Table 1. Social Media Tools in OLEs

<table>
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<tr>
<th>Social Media Tools</th>
<th>Recommended Use</th>
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<tr>
<td>Discussion Boards</td>
<td>• Class discussions designed to apply or and/or synthesize course content</td>
</tr>
<tr>
<td></td>
<td>• Posting assignments and learning resources for students</td>
</tr>
<tr>
<td>Wikis</td>
<td>• Repository for course content and learning resources</td>
</tr>
<tr>
<td></td>
<td>• Used to create and host study groups</td>
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<tr>
<td></td>
<td>• Student project activity and file sharing</td>
</tr>
<tr>
<td>Blogs and Vlogs</td>
<td>• Instructor blog used to share information, tips, course updates</td>
</tr>
<tr>
<td></td>
<td>• Student blogs used to post reflections or short, topic-based assignments</td>
</tr>
<tr>
<td></td>
<td>• Video lectures prepared by instructors</td>
</tr>
<tr>
<td>Instant Messaging</td>
<td>• Chat areas used for announcements, information-sharing, networking, or getting help</td>
</tr>
<tr>
<td>Video Conferencing</td>
<td>• Instructor-led seminars and lectures</td>
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<tr>
<td></td>
<td>• Student-led presentations</td>
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<tr>
<td></td>
<td>• Student project activities; planning, brainstorming, collaboration</td>
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</tbody>
</table>

Social media can positively enable learning when used to support well-constructed, meaningful, and relevant learning activities designed to meet a specific set of learning outcomes. Selecting the appropriate social media tool depends on the nature of the instructional activity. Factors to consider are the time required to complete the activity, the need for synchronous versus asynchronous, and the type of interactions desired (i.e., student-student, student-instructor, or student-content). There are a variety of social media tools available to facilitate participatory learning in OLEs. However, use of social media technology alone will not guarantee participatory learning. Therefore, instructional techniques must be deployed along with social media tools in order to create an online learning experience that helps students have social interactions similar to face-to-face experiences.

The Solution: Part B - Instructional Strategies

The design of the instruction will determine the social media tool used, yet instructors still need to plan for meaningful learner interactions. In addition to the technology, we suggest the inclusion of five essential instructional strategies for creating participatory OLEs. Drawing from social learning theory and social cognitive learning theory, it is important to include planned social interactions, collaborative activities, real-life context, learner reflection, and assessment of participation and interactions. These instructional techniques can be brought to life in an online classroom through social media tools. All of the strategies proposed, when used along with social media, could help create an effective, engaging online learning experience. Table 2 describes common applications of social media and how they can be used to facilitate participatory interactions in OLEs.

Table 2. Social Media Tools that Support Participatory Interactions

<table>
<thead>
<tr>
<th>Type of Interactions</th>
<th>Suggested Social Media Tool</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Asynchronous group discussions (e.g. special topic or problem set)</td>
<td>Discussion Board</td>
</tr>
<tr>
<td>• Asynchronous collaborative group work (e.g. small project or problem solving)</td>
<td>Discussion Board and Wiki</td>
</tr>
<tr>
<td>• Individual or group assignment submission for peer/instructor review</td>
<td>Blogs and Vlogs</td>
</tr>
<tr>
<td>• Synchronous discussion, debate, brainstorming, and solution generation</td>
<td>Video Conferencing and Instant Messaging</td>
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</table>
To construct a participatory online learning environment, educators should implement instructional strategies that are conducive to interactive discussions, collaborative group work, authentic applications, with reflection opportunities and feedback loops in order to engage learners in a social learning process that starts in the classroom and continues forward through personal discovery, negotiation and collaboration with peers. Online learning that is truly social can be a catalyst for deep learning opportunities that are expected in traditional classroom settings (Zimmerman, 1989). Even though learners come together initially to achieve a specific learning objective, through social interactions students also form networks of information, resources, and relationships that enable them to continue learning even after formal instruction ends (Dabbagh & Kitsantas, 2012).

**Conclusion**

Although there still exists a strong need for more empirical evidence, the implications of the online learning revolution are somewhat obvious. Online learning is different from the conventional classroom; therefore, online instructors need to apply instructional techniques that facilitate participation and interaction, and promote students’ learning success. The key challenge instructors face is the absence of ‘natural’ social interaction and learner proximity that promotes the learning process—a circumstance that is automatically present in face-to-face environments (Bandura, 1977; Vygotsky, 1978). Other challenges include curriculum design and structure that is not conducive to social learning. In other words, the curriculum does not stimulate or incentivize interactive participation, contribution, or collaboration—the necessary fuel in the social learning gas tank. Figure 1 encapsulates the ‘recipe’ for successfully creating a participatory online learning environment. The key ingredients include aligning instructional design choices with one or more social media tools to achieve the desired level of student-student, student-content, and instructor-student interaction.

![Figure 1: Ingredients for a Participatory Online Learning Environment](image)

In conclusion, there are still obstacles that instructors have to overcome to create meaningful online learning experiences. Leveraging social media tools is a step in the right direction. However, we also suggest that it is not enough to simply add in social media and expect results. Instructors need to also apply instructional design techniques originating from social learning and social cognitive learning theories; planned social interactions, collaboration with other students, real-world problem-solving, reflection to synthesize and apply new knowledge, and meaningful feedback.

**References**


