

## Chapter 20

# Examining Design Pattern Strategies as a Means to Achieve Social Presence in the Online Classroom

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### ABSTRACT

*Design patterns have received much attention across multiple design domains where social interaction is a central goal because they have great potential for capturing and sharing design knowledge. Design patterns, design pattern language, and design pattern libraries demonstrate potential benefits to novice and expert online course designers. Trends affecting the growth of online courses and resultant pitfalls negatively affecting students and instructors indicate the need for social presence design. A literature review addresses the importance of social interaction, differentiated design, learning-oriented social networking, and Web design structures in an effort to assuage the experience of isolation reported by the majority of online students. The authors argue that design patterns are a method of overcoming many of these apparent obstacles to quality online course design and learning engagement. Additionally, they present example design patterns to solve specific social interacting problems.*

### INTRODUCTION

Armed with a host of Web-connected devices, today's students and instructors crave more from their online courses than guided textbook tours or a stack of assigned texts and writing activities. Through repeated experiences of high quality in-

teraction design in regular Web-based activities, such as shopping, banking, playing, socializing and informal learning etc., we are becoming more expectant of satisfaction in our encounters with formal online learning environments. There is, however, a discrepancy between student and instructor expectations and the achievement of

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satisfying social interaction in an online course, and part of that discrepancy rests in a resource deficit of time, support, technological proficiency, and design knowledge. Design pattern strategies, originally conceptualized to democratize architectural design resources and empower ordinary people to participate in designing the spaces they physically lived in (Alexander, 1979; Goodyear, de Laat, & Lally, 2006), have received much attention for their value as a means for capturing and sharing design knowledge relevant to online course design (Frizell & Hübscher, 2011). Within the context of online learning, design patterns and their collection in pattern libraries offer shareable, accessible and proven solutions to the problem of creating contextually relevant social presence in online courses, promising a potent and efficient means of overcoming these deficits of time, support, technological proficiency, and design knowledge.

It is important to note that the effects of these resource deficits come from a complex of causes with no single root source. However, we know instructors who are untrained in online course or website design may assume social presence will mimic the engagement of a face-to-face course, and use the same materials, strategies and schedules they are accustomed to (Allen, & Seaman, 2013; Smith, Ferguson, & Caris, 2001). This default design strategy—to replicate the physical course online—breaks the experience for the student and contributes to degraded satisfaction and the experience of isolation, disconnectedness and technological problems in online courses (Alman, Frey, & Tomer, 2012; Willging, & Johnson, 2004). Online courses require participants to develop new literacies, attitudes and expectations related to social interaction in this digital media environment. The tools, physical boundaries, and forces are not driven by the principles of proximity, time, and technology (DePoy, & Gilson, n.d.; Jordan, 2012). Digital spaces contain forces and problems related to digital technology literacy, Web use culture, and more abstract concerns about how

mediated connections and media cultures affect the needs and preferences of learners (Reigeluth, 2012). Student and instructor both experience dissonance when these forces are not considered and successfully addressed in the design of an online course.

Social presence in the digital environment relates directly to our ability to experience social encounters that both affirm self-perception and the perception that there are other people in the online course with us (Heim, 1998). Social interaction in physical spaces is founded on design patterns (such as podiums, desks arranged in horse-shoe patterns or clustered into small groups, and spacious hallways for chatting between classrooms). For example, details are coded to define each facet of this purposive environment, from how wide the halls should be to how lecture spaces will be used and shared. The same design patterns do not inform the blueprint for interaction in an online course. Online, activities for connecting and learning are made possible through digital whiteboards rather than physical whiteboards, and principles of proximity, time, and technology enable different requirements for interaction. Design patterns traditionally applied to fields outside of education, such as those from architecture and social interface design, help to address both the resource deficits previously mentioned and the knowledge gap between the design of online and face-to-face learning environments.

Introduced by architect Christopher Alexander, (1979), design patterns are intended to make repeated problems encountered in architectural design situations and their relevant solutions more accessible. Alexander's conceptual framework of design patterns was conceived to empower untrained people to design the environments where they live, learn, play, work and even learn together (Alexander, Ishikawa, Silverstein, Jacobson, Fiksdahl-King, & Angel, 1977). These patterns are socially derived, componential and empirical strategies that describe:

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