Interaction Strategies and Experience Design: Guidelines for Technology-mediated Learning

Type: Full Paper/Conceptual & Empirical Studies

Topic: Tools & Content-oriented Applications: Interactive Learning Environments

- The topic: This paper builds upon research describing the construct of interaction in learning, with particular attention paid to designs for technological mediation learning. It suggests that interaction strategies, regardless of their theoretical bases, can help improve individualization, personalization and relevancy of distance, online and blended learning experiences. Various models of instructional interaction are reviewed and discussed. From these four schools of thought, a design model for creating and implementing interactive technology-mediated learning systems, programs, courses and performance support interventions is presented.

- The motivation for the work: Interaction has been and continues to be one of the most hotly debated constructs in the realms of distance learning, instructional design and academic transformation, to name three unique application environments. For technology mediated learning, interaction is a key value proposition. Interaction continues to be perceived as the defining attribute for quality and value in online learning experience. And while interactivity (equated with interaction) is no longer as expensive, unusual or technologically challenging as it has been even in the recent past, interaction continues to be an essential component of a technology-mediated learning design success. As noted by Moore and Kearsley (1996) the more distributed the teaching and learning paradigm, the more critical the need for interaction.

- The major questions addressed: The rationale for exploring interaction in the context of technology-mediated learning explores the following two hypotheses:
  - The perceived quality of a learning experience is directly proportional to and positively correlated with the degree to which that experience is perceived as interactive.
  - If technology-mediated learning designs are to have any significant impact on current and future pedagogical practices, then learning design and development decisions need to maximize the benefit of interaction.

- The general process and conceptual framework, with references to literature: This paper presents a review of literature that reflects four perspectives on interaction research. These four perspectives include:
  - Interactions as transaction: For those subscribing to Michael G. Moore’s views on the subject, interactions are transactions between
teacher and learner, learner and learner, learner and content (Moore, 1989; Moore and Kearsley, 1996). The addition of learner-interface interactions as proposed by Hillman, Willis and Gunawardena (1994) was a nod in the direction of increasingly responsive computer systems and networks that emerging in the early 1990s. Quests to define interaction as an expression of the relationships between and among Moore’s three interaction categories have shaped much of the current understanding of interaction in distance and online learning settings.

- **Interactions as outcome:** Creating compelling, Interactive experiences is frequently the attribute most closely associated with quality, yet without a strong focus on the intended results of the interactions it can be one of the most challenging – and expensive - elements of a technology-mediated learning design. From this perspective, interaction became a strategy for achieving specific learning or performance outcomes. Under these conditions, interaction is less as a theoretical construct and more as a variable that needed to be exploited, accommodated, leveraged or managed when crafting digital learning designs (Wagner, 1994, 1997, 1999, 2005/in press)

- **Interactions as social presence:** As the numbers of World Wide Web users continues to climb (IDC, 2004) and as technology becomes the means of providing “next-best thing to being there” experiences, the more users seek to leverage technology to establish, extend and maintain bonds of interpersonal connectedness. Whether establishing a framework for supporting distributed teams or a establishing a link that provides deeper insight into the personological attributes of learners (e.g., Soles and Moller, 2001) the desire to transcend psychological distances and establish interpersonal connections has helped focus attention on the notion of social presence, where interaction is the means of realizing that connectedness. (SEE ALSO Gunawardena, 1995; (Moller, 1998; Jelfs & Whitelock, 2000; Garrison, Anderson and Archer, 2003; Swan, 2003;)

- **Interaction as experience:** A promising new perspective on interaction considers interaction as a dimension of experience. Gilmour (2003) recently described the phenomenon of experience in the context of what he called the “Experience Economy,” where consumers increasingly seek out experiences that engage them in personal and memorable ways. Extending rich immersive, engaging sensory experiences in online settings is the driving obsession of the software and web services industries (Duhl, 2003). The notion of improving the quality of experience as the goal an interaction offers some intriguing and compelling learning design possibilities.