Chapter 7
Full-Surround "Instructional Design" Support for Quality E-Learning:
A Conceptual Case Study Out of Kansas State University

Shalin Hai-Jew
Kansas State University, USA

EXECUTIVE SUMMARY

Supporting quality e-learning in an institution of higher education is a non-trivial task. This challenge stems from the complexity of online learning with a mesh of laws (such as intellectual property and accessibility ones) and policies that undergird the foundational level of quality. There are the ever-evolving technological challenges—of technological learning platforms, digital learning objects, authoring tools, multimedia, the Internet, and the Web. In an academic environment which emphasizes academic freedom, there are few levers to motivate quality—except through faculty-imposed standards, funding mechanisms, quality endorsements, or other incentives. The variance in learning domains may make a shared concept of quality more elusive and likewise variant. Professional subject matter experts and faculty members have different preferences and standards as well, and their choices of teaching methods will vary. Learner expectations affect the concept and perception of quality. The normal constraints of resources, budget, time, knowledge, and skills, also apply as potential challenges to a friction-free development of quality e-learning. This chapter uses the instructional design framework to reflect on practical ways to support quality e-learning.

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INTRODUCTION

Instructional designers provide important support to a college campus to promote quality e-learning even though theirs is a support service. The procurement of instructional design may be within the institution, whether the designers work within the department or college or are centralized with cross-college and cross-departmental services. Others are independent consultants who work for pay. Often, instructional designers support faculty or subject matter experts during a particular phase of a project, and the rest of the work is done by the originating subject matter expert (SME) team given the do-it-yourself (DIY) sphere. (This approach has its limits given the pedagogical and technological expertise required and the natural limited absorptive capacity and time resources of most faculty and SMEs.)

The initial rush to get learning and courses online has left the quality angle addressed in limited piecemeal ways for many campuses. The definition of quality e-learning has changed with more research on a number of fields: mediated human communications; e-learning platforms; multimedia development and human cognition; online curriculum development; culturally sensitive learning; virtual teaming and collaborations; telepresence and social presence; learning in immersive 3D virtual spaces, and a range of research on the applicability of a number of pedagogical theories. Technological advancements in the carrying capacity of the Internet, the searchability and perceptual richness of the World Wide Web 4.0 (known as the "customized" and "connective" Web), the sophistication of authoring tools, and programming in virtual worlds, have also changed the concept of quality. Quality e-learning involves a greater profusion of multimedia-rich contents, 3D immersive learning and simulations, and greater ubiquitous mobile learning. As e-learning matures, it is bringing with it a greater range of learners with more diverse needs (Muntean & Muntean, 2009).

The wide availability of open-source digital learning objects and contents as well as packaged open learning courseware affect expectations of quality contents through modeling (Lawless, Hederman, & Wade, 2008). Open-corpus harvesting of digital contents has been enhanced with a variety of complex Web-based and other search tools, and newer tools make it easier to repurpose such found contents (Steichen, Lawless, O'Connor & Wade, 2009).

Even the availability of amateur-made contents affects the public consciousness. Social networking tools have redefined expectations among learners and made real-time appreciation and dissension of online learning experiences fodder for global consumption. These have lowered barriers between instructors and learners and increased the channels for access. Wikis have been deployed for the co-creation of knowledge and the management of this knowledge in terms of searchability and findability. The contents of student eportfolios often become part of the larger semantic Web with the machine awareness of rich digital contents. The culture of e-learning evolves based on a variety of such factors.

Web-based services involve authoring tools and content storage in the "clouds." Learners may access a range of support services fully online—from registration to advising to counseling to research to learning to socializing. Much of the university experience is delivered through the Web. The use of digital resources enables a deep level of data-mining to evaluate learner needs and to increase quality assurance (Hajra, Birant, & Kut, 2008).

Poor quality e-learning often leads to negative learning (misconceptions) and poor knowledge and skills acquisition. Learner complaints have cited "criticisms of assignments or a textbook, frustration with software or hardware, expressions of feelings of isolation from other students or the instructor, or concerns about their grades," with various challenges identified: ineffective organization and scheduling, insufficient techni-