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Chapter XVI

Fast Prototyping as a Communication Catalyst for E-Learning Design

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Abstract

This chapter proposes a renewed perspective on a known project management model, fast prototyping, which was adapted for the specific issues of e-learning development. Based on extensive experience with large e-learning projects, we argue that this model has a positive impact on e-learning project team communication, and that it provides a good basis for effective management of the design and development process, with specific stress on human-factor management. The chapter stems from the experience gained at the eLab (e-learning laboratory—www.elearninglab.org), a lab

run jointly by the Università della Svizzera italiana (USI—University of Lugano) and the Scuola Universitaria Professionale della Svizzera Italiana (SUPSI—University of Applied Sciences of Southern Switzerland) in Switzerland. It contains three case studies of different applications of the fast prototyping model and has a strongly practical focus.

Introduction: Some Issues in Large E-Learning Projects

The transition to e-learning in higher education institutions, at course, program, or institutional level, always requires a radical change in the organization. This means that instructors, teaching assistants, and subject matter experts are faced with a new situation in which many of the assumptions on which they previously relied are brought into discussion. Moreover, they need to work in teams with other professionals—graphic designers, Web programmers, instructional designers, etc.—who might not share their professional language and understanding of the topic and of teaching and learning as such (Botturi, 2006). In many cases, the team members are novices in the field of e-learning and do not have sound design practices or established routines for their tasks; consequently, the team cannot rely on common ground for mutual understanding (Clark, 1996).

From the point of view of the teaching staff, we should consider at least two main layers: (a) knowledge/skills and (b) the attitudes required to implement effective and efficient e-learning experiences. In the first layer, the main issues are concerned with a radical change in the teaching development context, moving from a craftsmanship model—the teacher looking after the whole teaching process, from conception to delivery, from materials development to evaluation—to an industrial model, where many different people, with different professional backgrounds, are to collaborate in order to design and implement the e-learning experience (Bates & Poole, 2003). In the second layer, an instance of the well-known process of diffusion of innovation is found: People fear innovation and resist it unless positive conditions occur (Rogers, 1995).

The design model, which embodies the overall approach to e-learning, plays a key role in tackling these issues. This chapter addresses them in the context of large e-learning projects where a fast prototyping model has been adopted, stressing two areas of intervention in the two layers.

1. The first area is collaboration in working groups, where people with different backgrounds and expectations are to collaborate in order to