Chapter XL
Designing Learning Objects for Generic Web Sites

Henk Huijser
University of Southern Queensland, Australia

ABSTRACT

This chapter provides an in depth discussion of the issues involved in integrating learning design and learning objects into generic Web sites. It has a dual focus and consists of two parts: the first part outlines and critiques the notion of the Net Generation and its implications for learning design, while the second part is based on a case study of a generic academic learning support Web site and allows for the testing of some of the theoretical assumptions about the Net Generation. Informed by empirical research, this chapter concludes by offering suggestions on ways to exploit convergent possibilities of integrating learning design and learning objects in a Web environment, while paying careful attention to divergent capabilities of students targeted in such an environment.

INTRODUCTION

This chapter is concerned with working towards a tighter fit between the possibilities that new technologies provide for learning design and learning objects on the one hand, and an increasingly diverse student body on the other. When it comes to applying new technologies in an educational context, the emphasis tends to be on the potential that these technologies offer, often accompanied by a brief disclaimer that these technologies also facilitate fragmentations with greater disparities between the information-haves and have-nots. Not surprisingly, this simultaneous movement between possibilities and the skills/knowledge required to capitalise on those possibilities, presents the biggest challenge for an e-education environment.

The notion of the Net Generation (Oblinger & Oblinger, 2005) attempts to capture the apparently fast changing skills/ knowledge sets of a "new generation," and ascribe specific characteristics

to that generation such as ability to read visual images, visual-spatial skills, digital literacy, and connectedness, amongst others. These kinds of characteristics would have major implications for the area of learning design and learning objects, particularly in terms of their applications. But just as with earlier attempts to define generations, the boundaries between them are porous, and the concept should thus be approached with appropriate caution. This applies in particular to a tertiary e-education environment which is increasingly characterised by a highly diverse student population, not only culturally but also in terms of "techno literacy." In this context, the challenge for e-education becomes one of balancing convergent possibilities of integrating learning design and learning objects in a Web environment with divergent capabilities of diverse student cohorts. As Hughes (2004, p. 364) argues, "the ability and potential (of e-learning) to enhance access to education, particularly higher education, is largely determined by the potential learner's circumstances, which in many ways define the learning environment." Thus, the challenge is one of designing effective learning experiences in an increasingly diverse tertiary education context.

This chapter addresses the above challenge in a general sense in the first instance, before applying the resultant insights to an empirical case study of an academic learning support site at the University of Southern Queensland (USQ), to forge links between theory and practice. USQ is well placed to conduct such a study because as a regional Australian university, it has both a highly diverse and a geographically dispersed student population, with more than 75% of its students studying in distance education mode. The case study involves a Web site called ALSOnline (Academic Learning Support Online), which is currently in the process of being redeveloped, and the study was designed to provide insights into what would make it more "user friendly," both with regards to learning objects and the conver-gent possibilities of presenting and designing those objects.

The study consists of a survey of first year students from five large first year courses in five different faculties, and a follow-up series of in-depth interviews, conducted through MSN Messenger. The online survey asked questions about learning objects, accessibility, navigation, and organisation of content. The interviews paint a more in-depth picture of learner needs and capabilities and in particular the needs and capabilities of a diverse student population. This in turn raises questions about how to (re-)design a generic site like ALSOnline. For example, to what extent do we incorporate multimodal design? This would take advantage of convergent possibilities by incorporating and combining a variety of different media, which the Internet is ideally placed to accommodate. In addition, it would be tailored to the Net Generation with its "visual-spatial" skills, its "attentional deployment" (ability to shift attention rapidly from one task to another) and its "experiential preference" (prefer to learn by doing rather than by being told what to do). At the same time however, it raises questions about Internet access, and about the assumptions of the Net Generation's skills themselves.

Possibilities afforded by new technologies should be capitalised on, and be informed by changing characteristics that students bring to the tertiary learning environment, but at the same time they should carefully take increasingly diverse needs, skills, and lifestyles into account, and have a clear focus on desired outcomes. This chapter will address these potential outcomes through a theoretical discussion of current expectations of and about a new generation of students combined with a theoretical discussion of current practice and developments in learning design and learning objects. Aligning these two is important as their integration can potentially satisfy the objective of creating both stimulating and student-centred learning designs and objects. This would not be such a daunting task if the student body was

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