Chapter II

Standards?
What and Why?

Phil Long, Information Services and Technology, USA
Frank Tansey, Technology Consultant, USA

Abstract

Specifications define the nature of the interconnections between the distinct parts of complex learning systems, but not their boundaries. Next generation CMS tools are emerging from standards discussions that challenge current e-learning systems design boundaries. They raise the prospect of a complex but smoothly functioning set of components and services that aggregate in ways that best serve individual communities of users. Users need to engage in the process to express their requirements for e-learning software. These building blocks, produced by a small number of organizations, are establishing the framework that will enable CMS environments to become vastly different than the CMS you might now be using.
Introduction

Our exploration of next-generation course management systems begins with the important and somewhat hidden efforts to develop e-learning specifications and standards. These building blocks, produced by a small number of organizations, are establishing the framework that will enable CMS environments to become vastly different than the CMS you might now be using. The environment that emerges from well-defined specifications is a landscape that makes the current boundaries set by course management systems both artificial and limiting. The logical outcome of this work is a complex but smoothly functioning set of components and services that aggregate in ways that best serve individual communities of users. Specifications define the nature of the interconnections between these distinct parts of a complex learning system but not their boundaries. The result is a future world where we’ll look back on this discussion of CMS software as a quaint footnote in the development of more robust educational technologies for teaching.

Common Needs

Specifications and standards arise from the need to promote technical, syntactical, and semantic interoperability. This need is important in relation to metadata, content, databases, or repositories, designs for learning, vocabularies, learner profiles, assessment, expression of competencies, and networking protocols. Standards and specifications make the “abilities” (Nissi, 2003) of e-learning possible. These abilities include:

- **Interoperability**: Systems work with other systems, within and between institutions or organizations. Content developed in one system is not restricted to that system by proprietary encoding or protocols.
- **Reusability**: Learning objects or resources are easily used in different curricula, learning settings, and for different learner profiles.
- **Manageability**: The system tracks information about the learner and the content.