Cross-Cultural Learning Objects (XCLOs)

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INTRODUCTION

"Networked virtual organizations outperform competitors by responding more quickly to customers, collaborating better with partners to perform value added activities, and fully standardizing their business processes, data, and IT infrastructure" (Cisco Systems Inc., 2003). Thus, networked and virtual organizations (NVOs) depend heavily on the agility afforded by effective communications, ease of sharing information, and virtual integration of business functions. Such agility however, requires a trained workforce. In keeping with its reliance on technology, NVOs, especially those in the U.S. (Bersin, 2005; Rivera & Paradise, 2006; Sugrue & Rivera, 2005), frequently utilize e-learning as their source of training and education. In e-learning, there is a proliferation of social and collaborative tools, mobile learning, and dynamic computing (EDUCAUSE Learning Initiative, 2006). These tools, coupled with the global reach of NVOs, will precipitate unprecedented contact between educators and learners from other cultures. Because e-learning is a cultural artifact—embedded with the nuances of the culture that designs it—e-learning will need to be translated, localized, and adapted in profound ways to suit the needs and preferences of learners in other cultures. *Localization* addresses obvious visual and textual differences found in other cultures, such as icons, symbols, gestures, and so forth. However, the deeper ramifications of culture, such as what people value, how they learn, solve problems, and so forth, will require approaches that are more sophisticated. *Reusable learning objects (RLOs)* are "plug and play" chunks of learning materials (content, teaching approaches, and so forth) that allow instructional designers to construct and modify e-learning in an easy, efficient, and effective manner that parallels the agility demanded by NVOs in business functions. RLOs are fast becoming the foundation of rapid e-learning development (EDUCAUSE Learning Initiative, 2006). However, c*ross-cultural learning objects (XCLOs)* meet the additional challenge of creating e-learning that accommodates the more profound cultural differences of global learners, such as those generated by different values, national cultural dimensions, and even diverse levels of techno-literacy. This article describes XCLOs in more detail and illustrates how they can be used by NVOs to maintain their requisite agile workforce.

BACKGROUND

Technically, a learning object (LO) is a simple unit of instruction designed to achieve a specific learning objective. A variety of learning objects can be designed to achieve the same objective, allowing instructional designers to choose activities based on the demographics of learners, media, environments, and so forth. When one speaks of learning objects today, it is usually in the context of e-learning because LOs are digital and designed to be reusable (reusable learning objects or RLOs), which is accomplished by designing them to meet established standards for a specific data format, such as Sharable Content Object Reference Model (SCORM) and Aviation (all encompassing) Industry Computer-Based Training (CBT) Committee (AICC) (Wikipedia, 2007). A simple definition of an RLO is "[a] self-contained piece of learning material with an associated learning objective, which could be of any size and in a range of media" (Crawley, 2006).

NETg (2003) defines [RLOs] by three components that must be present: the object must have a measurable objective, it must have an activity that exactly matches this objective, and it must have an assessment. Wiley (2000) defines a learning object as "any digital resource that can be reused to support learning." Extensive databases, such as the Multimedia Educational Research for Learning and Online Teaching [MERLOT] (MERLOT, 2006), have been created to house these RLOs created by educators and to make them available to other educators.

The extensive coverage of reusable learning objects on Web sites such as http://www.reusablelearning.org/ (Reusable Learning Project, 2005-2005) and Eduworks

(2001-2005) are examples of how RLOs have grown in popularity and sophistication.

Reusable Learning Objects

Reusable learning objects represent an alternative approach to content development. In this approach, content is broken down into chunks. From a pedagogical perspective, each chunk might play a specific role within an instructional design methodology…

- Each chunk must be able to communicate with learning systems using a standardized method that does not depend on the system
- How a learner moves *between* chunks is controlled by the learning system.
- Each chunk must have a description that enables designers to search for and find the right chunk for the right job.

Such chunks are called learning objects. There is no standard for the size (or *granularity)* of a learning object (Eduworks Corporation, 2001-2005).

The primary benefit of using RLOs for rapid e-learning development, as well as for cultural adaptation, is that the needs of different groups of learners can be met by using these "chunks" to adapt existing courses instead of creating new ones for every different group of targeted learners. The major premise, while not entirely proven, is that the cultural characteristics of learners will need to be "matched" to characteristics of the e-learning courses. The largest producers of e-learning are in Western cultures, but the largest and fastest growing consumer groups are in Eastern cultures (Van Dam & Rogers, 2002). Thus, as e-learning is further globalized, education and training professionals will be challenged to meet the culturally-based needs of these learners. Businesses, higher education, and e-learning producers are rapidly adopting RLOs in the instructional design of e-learning, [but] also, recognizing "[the] issues around re-use of e-content and cultural models of teaching and learning" (Selinger, 2005) and "how culture and IT skills influence development and delivery of e-learning materials" (Benson et al., 2005). Educators acknowledge that "Many objects are culturally-inflected, which is to say that they may not be appropriate at all for diverse learners in remote settings…" (Nash, 2005). They are also recognizing

RLOs as cultural artifacts and the inherent socio-cultural differences presented (Berge & Fjuk, n.d.).

Cross-Cultural Learning Objects

However, the term *cultural learning object* (CLO) has already been coined. *CLOs* are digital representations of art, historical places, and other physical artifacts of the world's cultural groups. An initial Internet search for *cultural learning* objects illustrates that, for the most part, these are reusable learning objects used in the cultural heritage industries, such as museums (DigiCULT, 2003; Giorgini & Cardinali, 2003). The concept of cultural learning objects came into existence with the proliferation of online museums, digitized art, and the need to move and store these objects for either display or for educational purposes.

Thus, in order to distinguish the CLOs used within the heritage industry from those used to created culturally adapted e-learning, an alternative moniker is needed. The term *cross-cultural* is defined as "…comparing or dealing with two or more different cultures" (Lexico Publishing Group LLC, 2006), a definition that more aptly describes what instructional designers are trying to accomplish when in adapting e-learning for multiple cultural groups. This author contends that the term *cross-cultural learning objects* (XCLOs) better defines the characteristics of RLOs for globalized e-learning and, in addition, proposes that the e-learning industry adopt the term *cross-cultural learning object* [XCLO] into standard usage. Hence, the term would be distinguished from *CLO*, already coined by the heritage and museum industry.

MAIN FOCUS

So, how do XCLOs work and how should they be employed?

As a result of classical research and theories in industrial anthropology, Hofstede (1997), Trompenaars and Hampden-Turner (1998), and others, such as Edward T. Hall (1981), identified categories of characteristics across which members of cultures can be compared and contrasted at a national level called *cultural dimensions*. While each researcher categorized these dimensions differently, the concepts are similar: large groups of people within certain national groups (countries) tend

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