

INFORMATION SCIENCE PUBLISHING

701 E. Chocolate Avenue, Suite 200, Hershey PA 17033, USA Tel: 717/533-8845; Fax 717/533-8661; URL-http://www.idea-group.com **ITB9524**

Chapter XI

Designing and Reusing Learning Objects to Streamline WBI Development

Pam T. Northrup University of West Florida, USA

Karen L. Rasmussen University of West Florida, USA

David B. Dawson University of West Florida, USA

ABSTRACT

Reusable Learning Objects (RLOs) and reusable information objects (RIOs) are tools that facilitate quick, systematic, and effective design and development of Web-based instruction. Learning objects form the basis of an online professional development program targeted toward teachers who must learn and implement new strategies and approaches for teaching in a convenient and flexible environment. Using learning objects, following the Cisco model, to develop instructional components for repurposing provides designers with the flexibility to meet different goals and instructional needs of a variety of education and training settings.

This chapter appears in the book, *Instructional Design in the Real World: A View from the Trenches*, edited by Anne-Marie Armstrong. Copyright © 2004, Idea Group Publishing. Copying or distributing in print or electronic forms without written permission of Idea Group Inc. is prohibited.

INTRODUCTION

In the past few years, the World Wide Web has emerged as a primary technology-based delivery environment affecting the way people communicate and do business; it is poised to create a paradigm shift in the way people learn (Wiley, 2001). With this trend, there are new technical and instructional demands being placed on instructional designers to get materials to the Web quickly, provide just-in-time instruction, and make modifications to instructional materials on the fly. These demands have forced instructional designers to re-examine the work processes of designing and developing high-quality instructional materials.

Current instructional design models have been touted as 'slow and clumsy' resulting in instruction that takes too long to get to market (Gordon & Zemke, 2001). Thirty years of evidence supports a systems approach that produces solid instructional products and, in fact, the proposition that students do learn as a result of the instruction. Although the intent of design models is to serve as a heuristic for targeting specific instructional goals to solve organizational performance problems, many designers following the ISD process re-invent the wheel every time new instruction is developed. In one branch of the military, an analysis of courses revealed that there were over 150 courses on 'pumps' and new ones were continuing to be developed. In many organizations, this redesign and re-development continues to occur. (Imagine how many courses on customer service exist!) Rather than re-developing the same course over and over again, it is time to flatten the knowledge silos, see what else is out there, and parcel out components of various types of instruction that can be repurposed for differing goals and instructional needs. In the 21st century, with the rapid advances in information exchange and mass data storage, these knowledge silos no longer have to exist.

In the past five years, several technological developments have emerged that assist designers in getting content out to end users as quickly as possible. Tools such as learning management systems, content management systems, and task management systems now exist. These systems provide templates that sit on top of high-end databases enabling designers and non-designers to enter content into databases that can then be filtered back into their instructional lessons. The value of directly inputting content into databases lies in the designers' flexibility to locate specific resources to use and re-use for multiple purposes. The problem is that unless data input follows a common standard, it may not be able to be re-purposed and shared with others.

In the late 1990s, the Advanced Distributed Learning movement began as an approach to allow the armed services to create and share their instructional 15 more pages are available in the full version of this document, which may be purchased using the "Add to Cart" button on the publisher's webpage: <u>www.igi-</u> <u>global.com/chapter/designing-reusing-learning-objects-</u> streamline/23941

Related Content

Planning Effective Multimedia Instruction

Chien Yu, Angela Williams, Chun Fu Linand Wei-Chieh Yu (2008). *Handbook of Research on Instructional Systems and Technology (pp. 216-231).* www.irma-international.org/chapter/planning-effective-multimedia-instruction/20790

Connecting the Past and the Present: Using Our Deep History of Learning Through Community Art to Inform Contemporary Student Engagement

Carolina Eve Blatt-Gross (2018). *Student Engagement and Participation: Concepts, Methodologies, Tools, and Applications (pp. 50-73).* www.irma-international.org/chapter/connecting-the-past-and-the-present/183501

Predicting the Enrollments in Humanities and STEM Programs in Higher Education Using ARIMAX Models

Dian-Fu Chang, Wen-Shan Zhuand Shu-Jing Wu (2022). *International Journal of Online Pedagogy and Course Design (pp. 1-15).* www.irma-international.org/article/predicting-the-enrollments-in-humanities-and-stem-programsin-higher-education-using-arimax-models/311435

Technology-Enhanced Learning: Towards Providing Supports for PhD Students and Researchers in Higher Education

Eileen O'Donnelland Liam O'Donnell (2015). *Curriculum Design and Classroom Management: Concepts, Methodologies, Tools, and Applications (pp. 242-262).* www.irma-international.org/chapter/technology-enhanced-learning/126699

Multicultural Considerations for Curriculum Developers of Online Courses

Beth Sargent, Cynthia Gautreauand Kristin Stang (2014). *International Journal of Online Pedagogy and Course Design (pp. 31-43).*

www.irma-international.org/article/multicultural-considerations-for-curriculum-developers-ofonline-courses/119668