

Learning objects

By Sandra Cobb, Director of Instructional Technology, Mid-South Community College.

What are learning objects? Following is a direct quote from the Learning Objects network web site:

Learning objects are small stand-alone "chunks" of information designed to be easily reused and repackaged to meet the needs of different audiences. They typically are designed to achieve a certain narrow learning objective and may contain an assessment to determine success against that objective (Learning Objects Network, 2004, para. 1)

Educators have been creating instructional handouts since the beginning of formal education. If you are old enough, you may remember the blue ink handouts, fresh off the school mimeograph machine. They may have contained a set of math problems or a fill in the blank test. These were not learning objects because they were only designed to test, not to teach. Remember, the key here is that learning objects teach something. They are instructional in nature. Tutorials are learning objects. So are lecture presentations that teach something. Furthermore, learning objects are **reusable, sharable and stand alone. Adding interactivity significantly increases the efficiency of learning objects.**

The widespread use of learning management systems (LMS) / course (or content) management systems (CMS) on college Campuses has made the concept of learning objects very popular. Common LMS / CMS applications like Blackboard and WebCT, which are being used to present online education options, are perfect portals for presenting learning objects.

So, what is a **Reusable Learning Object**? RLO is the acronym assigned to reusable learning objects and the definition is, **any digital media that can be reused that mediates learning.**

Another acronym that pops up often is SCO, which stands for **Shareable Content Object**. An SCO is simply an RLO that the author is willing to share with others.

Sharable and reusable learning objects (RLO) make perfect sense. Think about it: Why should 5 history instructors create 5 different presentations on the civil war? Why should the learning object have to be re-created each time the course is presented during a new semester? Doesn't it make sense to create instructional objects that can be reused and freely share with our colleges?

Sharing course materials is a new concept for many college instructors. There has been so much controversy over copyright and intellectual property since the advent of online courses. I am not going to address that can of worms here, but I personally believe that if everyone who designs online course sites did so with the approach of uploading reusable learning objects and was willing to share, the conflict would lessen. Enough said about that! One advantage of uploading learning objects, verses creating content within an LMS/CMS, is that an instructor can easily take copies with him or her should place of employment change. If an

instructor leaves a college that uses Blackboard and goes to a college that uses WebCT, he/she can quickly and easily recreate the course on the new LMS. It is just like putting a puzzle together since all the instructional objects are stand alone.

A campus can share learning objects via the college network. A simple shared network drive that all faculty have access to can be used to store copies of all learning objects. The simple structuring of logically named folders can make it easy enough for faculty to browse and find what he/she is interested in. On a larger scale, a few sites on the World Wide Web make learning objects available to anyone in the world for free. I am a member of Merlot: <http://www.merlot.org/> which is a free and open resource for sharing learning objects. Members can upload information and links to learning objects they are willing to share. Anyone (membership is not required) can freely search for and link to any of these resources.

Shareable Content Objective Reference Model or SCORM, is beyond the scope of this paper, but I will give a quick nickel tour. SCORM is the acronym for Shareable Content Object Reference Model. LSM systems such as Blackboard and WebCT are scrambling to become or stay SCORM compliant. The compliance standards have to do with “wrapper” applications that use XML code to make searching for SCO’s easier. Rest assured that faculty doubling as instructional designers can happily create learning objects without understanding or being overly concerned about SCORM standards at this time.

There is an audio interview available at this link that is most informative: <http://www.coolgenius.com/geniusinterview.php?cgid=4&cqurl=coolq20025>

Digital tools for creating learning objects:

There are many tools that can be used to create learning objects. I personally use a combination of all of the following:

- PowerPoint – to create lecture presentations and tutorials
- Sound Forge – to record voice narrations for PowerPoint slides
- Impatica for PowerPoint – to convert PowerPoint presentation to streaming web media
- SoftChalk LessonBuilder – to quickly create interactive instructional documents
- Adobe Acrobat – to convert documents, spreadsheets and presentations to .pdf
- Sorenson Squeeze for QuickTime – to compress video
- Adobe PhotoShop – to create, edit and compress images
- Dreamweaver – to create web pages
- Flash – for animation

Of these, the ones I recommend for teachers who are not techies are: SoftChalk LessonBuilder, PowerPoint, Sound Forge, Impatica and Adobe Acrobat. My job is to teach faculty to develop online course sites. I know the low frustration thresh-hold most faculty have. After all, they were hired to teach, not to design. If you tell them they now they have to become technical gurus, they are apt to blow a gasket! I have found that I can teach Adobe Acrobat, SoftChalk

LessonBuilder and Impatica and without losing more than a few of my fold! They are fun and easy to learn.

Adobe Acrobat is an application used to convert any digital document to .pdf, which is a web-safe format. Use this to convert Word, Excel or PowerPoint files (which are not web-safe formats) to .pdf for uploading to an LMS. Learning curve, equals about 10 minutes!

SoftChalk LessonBuilder (<http://www.softchalk.com>) is an application that enables non techies to quickly and easily create interactive teaching documents. Interactivity features include: pop-text, pop-quiz, seek-a-word, matching and flash cards. Images can easily be inserted. The application packages the files into a zip file, ready to upload to the LMS of choice. You can go to <http://www.scobb.com/samples/class/uair/softchalk/softchalk1.html> to preview a tutorial **learning object** that I have designed on using SoftChalk. The learning curve is about one hour for most non-technical instructors!

Impatica for PowerPoint (<http://www.impatica.com>) takes a little more time and effort to master. Impatica for PowerPoint is a conversion tool. You simply run your PowerPoint presentations through this program to convert them to streaming web media. That part is very easy. It gets more difficult when one wants to add voice over files to each slide in the presentation. I use Sound Forge to do this. Teaching faculty to use sound forge to record their voice narration, then insert the sound files into the slides takes a little more hand holding. Then, once the presentation is converted to streaming media, the designer needs to learn to zip up three particular files and upload them to the campus LMS. The files need to be unzipped as they are uploaded. The average learning curve for this entire process is about 7-8 hours. Still not bad! It is important to save the development files for future editing.

SoftChalk LessonBuilder and Impatica both allow free trial version downloads from their respective websites. Both URL's are listed above. I encourage all who are interested to download the trial versions and give them both a test drive.

In summary, learning objects just make sense for online learning. Creation and maintenance is easy. The ability to design instruction in chunks is imperative to the success of the learning object and that skill must be in place before beginning this new endeavor. Sharing learning objects is a personal choice that benefits many. I personally would like to see much more open sharing. We can all make progress much quicker if we take the journey together and collaborate!

Reference page

Learning Objects Network Inc. (n.d.) Retrieved February 2004 from Learning Objects Network web site: <http://www.learningobjectsnetwork.com/Concepts.htm>

Merlot. (n.d.) Retrieved February 2004 from Merlot web site: <http://www.merlot.org/Home.po>

Cool Genius. (n.d.) Retrieved February 2004 from the Cool Genius web site: <http://www.coolgenius.com/geniusinterview.php?cgid=4&cgurl=coolg20025>

SoftChalk (n.d.) Retrieved February 2004 from the SoftChalk web site: <http://www.softchalk.com>

Sandra Cobb, 2004: How to use SoftChalk LessonBuilder: <http://www.scobb.com/samples/class/uair/softchalk/softchalk1.html>

Impatica. (n.d.) Retrieved February 200r from the Impatica web site: <http://www.impatica.com>

Appendix

Handout: Web resources for learning about Learning Objects

Web resources for learning about Learning Objects



Is the academy ready for Learning Object?
<http://www.syllabus.com/article.asp?id=7886>

Syllabus Magazine, article by Stephen Acker, Dennis Pearl and Stephen Rissing.

A discussion regard how willing faculty are to accept the “Learning Objects” ideal.

The OLN Learning Institute
<http://telr-research.osu.edu/OLN-LearningInstitute/>

Seven project teams came together in one of five Ohio Learning Network Institutes in January 2003 to share

approaches to building instructional content that efficiently serve different student needs and learning objectives. An overview of the meeting is discussed on this page.



 Macromedia: Learning Object Development Center
<http://www.macromedia.com/resources/elearning/objects/>

Elusive Vision: Challenges Impeding the Learning Object Economy, explores the drivers, enablers and mediators in the learning object economy. Larry Johnson, CEO of the New Media Consortium, describes and analyzes a summit of international learning objects experts.



The Instructional Use of Learning Objects

<http://reusability.org/read/>

This is the online version of *The Instructional Use of Learning Objects*, a new book that tries to go beyond the technological hype and connect learning objects to instruction and learning. You can read the full text of the book here for **free**



<http://www.merlot.org/>

MERLOT is a free and open resource designed primarily for faculty and students of higher education. Links to online learning materials are collected here along with annotations such as peer reviews and assignments. You are welcome to browse the collection or search for materials. Members may add materials, comments and assignments to MERLOT. [Membership](#) is **free**.

Alive Tek: Learning Objects Resources Page:

<http://www.alivetek.com/learningobjects.htm#>