E-Learning Strategy - Repurposing Content

October 2005 - Jeff Harris

As a CLO, you have probably incorporated e-learning into your department's delivery of training or identified it as an approach to help achieve your objectives. In either case, repurposing content is inevitable if you plan to develop custom e-learning content. Defining your strategy to repurpose content is critical to the successful deployment of your e-learning initiatives. To define your strategy and processes, you need to understand the potential benefits and issues offered by repurposing content. Develop a strategy that will help you manage the issues wisely, and you'll reap the benefits by improving the speed and quality of your team's content development. Fail to develop a strategy, and you'll manage them poorly, squander valuable production time and undermine the effectiveness of your e-learning.

Background on Repurposing Content
The benefits of repurposing objects, sometimes referred to as shared content objects or reusable learning objects (RLOs), are too obvious and compelling not to do it. At the top of the benefits list are speed of development, consistency of content and assurance of interoperability, all of which can be summed up in the old question, "Why reinvent the wheel?" When a content developer is able to find and use a shared content object faster than creating a new one, then time is saved, production is increased, consistency is maintained and potential problems are reduced. If an object is ready, available and works, then of course you should use it. Beneath the appealing veneer of repurposing content, however, lie some issues CLOs need to understand.

Today in e-learning, repurposing content refers to two broad categories of content recycling. The first is the large-scale transformation of content from one medium, one set of e-learning standards or one application to another. Two examples of this category are converting legacy content from a print medium, such as a three-ring binder, or a digital medium, such as a presentation created in PowerPoint, into online courses. Large-scale repurposing is often comprised of complete courses or whole libraries of courses. The second category is the small-scale or "one at a time" reuse of individual shared content objects within a course, such as a corporate logo, an exercise or an assessment question, which is done on a daily basis as e-learning content is developed and updated.

What makes e-learning content different from other training media is that it can be disassembled as individual objects, and then tagged and stored as content objects to be reused by others around the world, thanks to the Internet. This ability led some futurists in the early days of e-learning to offer a naïve vision in which shared content objects, like a global set of Lego parts, would be universally and unselfishly shared to configure new content. Although the e-learning community is far from embracing such a wide and lofty approach, repurposing content is one of its core values, along with speed of deployment and 24x7 access. Rapid e-learning, a growing trend, is a testament to the power and speed of repurposing content, with some aggressive training departments reusing course templates, navigation, graphics and prototype assessments to build sophisticated shells of courses in anticipation of impending corporate needs.

The needs of repurposing content have shaped the technology that is used to create and distribute e-learning. Learning content management systems (LCMSs) organize, store and access shared content objects largely to meet these needs. Authoring tools modify, tag, integrate and publish content objects into e-learning courses in ways that allow them to be used again. Integration and conversion tools, which enable the repurposing from one format to another, such as PowerPoint to e-learning content, expand the opportunities for faster migration and development. Learning management systems (LMSs) store and host the completed content in cooperation with LCMSs, to facilitate the repurposing of content as well. Unified by e-learning standards, especially SCORM (Shared Content Object Reference Model), AICC (Aviation

Industry Computer-Based Training Committee) and QTI (IMS Question & Testing Interoperability), these technology components of e-learning have, for the most part, achieved compatibility, and made repurposing easy and commonplace. However, even with this technological harmony, you still face issues ensuring the repurposed content helps you achieve your corporate training goals.

Large-Scale Repurposing
Large-scale repurposing is an increasingly common issue for CLOs as e-learning initiatives grow in number and scope. Large-scale repurposing is driven most often by one of two events:

- The decision to launch major e-learning programs, such as the move from 100 percent instructor-led training to a blended approach, or to expand existing e-learning programs, such as repurposing employee courses for training vendors.
- A critical change in technology, such as switching from an LMS that does not support standards to one that does, or switching standards, such as from AICC to SCORM. Each of these two general scenarios poses specific issues.

If you are a CLO leading the launch of a major e-learning program, you will need to repurpose curricula that currently exist as workbooks, printed handouts, videos, digital presentations, slides or audio cassettes. Do not assume that because the content already exists that the only step in the process is to convert it to a digital format. In some cases, such as videotape, that may be all you need, provided you have a server with streaming capability. In other cases, such as text, cutting and pasting paragraphs to create pages of e-learning will not be enough.

The two most problem-prone areas of repurposing content on a large scale are long tracts of text-only content and PowerPoint presentations. Text-only e-learning is often a tedious and unsuccessful method for an employee to acquire knowledge. It fails to take advantage of e-learning's multimedia opportunities, such as videos, audio files, interactive exercises, games and simulations, which can often communicate faster and more effectively. If you have heavily text-based curricula, you and your team need to rethink how to communicate the same content in different media. For example, if your department trains salespeople how to sell pacemakers and uses a long text description of an irregular heartbeat, you should consider an animation with the look and sound of an electrocardiogram to achieve the same learning objective with faster, better results. If you ask your development team to take a step back from the text and brainstorm on new ways to communicate the same learning concepts using the multimedia options available, you will end up with more engaging, more effective content.

PowerPoint presentations in instructor-led classroom training are nearly universal and most often serve as visual aids and lecture guides for the instructor, with the majority of the content delivered verbally. Consequently, the presentation screens are only a fraction of the necessary content to be repurposed as e-learning, sometimes as little as 10 percent, which means 90 percent of the necessary content is missing. You cannot assume, therefore, that PowerPoint or slide presentations can be repurposed and deployed without significant reworking. As simple and obvious as this pitfall may appear, it is an unbelievably common oversight in large-scale repurposing.

As with text, presentations often lack the necessary interactivity to engage students when the training migrates from instructor-led to online. For example, if your trainers are using a classroom presentation to instruct field technicians on switches used with high-power electrical lines, then you should consider creating an animated simulation that enables a student to open and close the switch using a computer mouse. If your team can add interactivity to text or presentations, have them do it. If you need to convert legacy content, whatever the format, revisit your learning objectives, evaluate your multimedia options, brainstorm and then take advantage of them.

If you are moving your company's content from one LMS to another or need to convert existing e-learning content to meet e-learning standards such as SCORM and AICC, then you will likely do this with an authoring tool that can meet the standards you need. For some in this situation, the repurposing process may be as simple as importing the content into an authoring tool and republishing it using a different e-learning standard. For others, this process may be a major cut-and-paste and drag-and-drop process that dismantles and reassembles the content to achieve the required standards. In either scenario, you may need to test your process with trial versions of authoring software to be certain you can achieve the objectives you've set.

Large-scale repurposing requires a plan of attack. If your team currently lacks the required e-learning content development skills, you'll need to develop or acquire them. If your team already has the skills and can repurpose content from non-digital media, then you need to develop storyboards to map the flow of content, design navigation, identify the holes and understand how the legacy content will be reused. If you have the advantage of a team of content developers to handle the project, then the old "division of labor" approach may save you substantial amounts of conversion time by turning each team member into a specialist to function as part of a production line. With one person serving as a video editor, another as a text editor, another as a Flash developer and so on, you will reduce the time needed to complete the transformation and get your e-learning courses up and running.

Small-Scale Repurposing

The small-scale or day-to-day repurposing of content usually involves individual shared content objects. If this is standard practice in your company, you may want to consider developing a strategy, which begins with a needs assessment. Although there is no litmus test for determining if a formal strategy is needed, if your team develops less than 2,500 screens of content each year or is comprised of five team members or less, you can probably do well with the casual approach that already exists among your team. If you're producing more screens than that, you will likely benefit from formal policies and procedures regarding repurposing content. Another factor to consider is the accessibility of your content developers to one another. For example, three content developers working independently in three different offices or on different shifts would likely benefit from a formalized approach. If a rigid consistency of content is critical to you, establishing a strategy and methodology is imperative to help ensure that the same objects are being reused and reused correctly.

The decision to use an LCMS depends, in part, on the volume of shared content objects you use. If an LCMS is a component of your LMS, it makes sense to take advantage of the storage, access and management capabilities it offers. If you're looking at an additional cost to have an LCMS, a needs assessment to determine the anticipated volume of usage is recommended. An effective LCMS, used and managed correctly, can significantly reduce development time by keeping content objects well organized and instantly available.

One of the keys to using an LCMS successfully is the methodology used to define and identify shared content objects. A rigid, consistently applied methodology ensures that content can be stored and retrieved quickly. Although an entire screen, chapter or course could theoretically be labeled as a shared content object, most definitions seek to identify the smallest object possible. For graphic elements, such as photographs, illustrations, videos, corporate logos and animations, this is usually straightforward. However, for text, defining the smallest object can become problematic because a single sentence or paragraph from a lengthy case history, if taken out of context, may have no repurposing value. Deciding what is and what is not a shared content object is ultimately a judgment call by a content developer, graphic designer, instructional designer or trainer applying the definitions you've set forth. As CLO, you must manage your team to define shared content objects in a way that works best for your company.

Another key to your methodology is identifying what categories of objects you will reuse. Striving to save every single object will turn content developers into rebellious librarians, who waste

valuable production time tagging objects. If your team rarely repurposes audio files or CAD images of new products provided by subject-matter experts, you probably don't need to archive them. The same goes for any type of file or style of content that doesn't fit what you will regularly reuse.

Once you've defined shared content objects for your company, you need a methodology to describe them so that they can be identified and retrieved quickly for repurposing. Just as the alphabet helps you locate a single name in a telephone book among hundreds of thousands of listings, identifying content objects using a consistently applied system increases the likelihood that your content developers will find the right object as quickly as possible. This is done using meta-tags, which serve as the descriptors that make it possible to find a content object by searching within an LCMS. A typical system may include such descriptors as type, author, language, version, country or region, and more. Although part of the protocol is defined if you're using e-learning standards, other parts are more open-ended, enabling your team to more accurately define content objects to best fit its needs. If you're using an LCMS, work with your provider to understand the recommended schema or methodology for meta-tags, and then adapt them to meet your requirements. Every company's set of shared content objects is different, so design and deploy a system that is most efficient for you.

Conclusion

Repurposing content requires effective management and strategy. If you've reviewed the issues and defined your strategy, even if it's a casual one, then you're on the right path. Understanding the key issues of repurposing content beforehand will help bring that strategy into sharper focus and serve to help you and your department better identify and resolve ancillary issues as they occur. Additional issues you may encounter include management of copyrights to avoid legal snares, using external resources such as stock photography for shared content objects and evolving trainers from traditional instructor-led delivery to e-learning delivery. With a situation-specific strategy and processes serving as a foundation, your department can take advantage of repurposing content and the speed of development and deployment it offers e-learning.

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