Rapid E–Learning in the University

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DEFINITIONS OF RAPID E-LEARNING

Rapid e-learning (REL) is a phrase in common use since 2003. This article defines REL, describes types of REL authoring tools, discusses management and instructional issues surrounding REL in corporate and academic settings, and summarizes the experience of the National University of Singapore (NUS), an early adopter of the concept of REL since 2004.

Almost all current literature on the topic focuses on REL applications in corporate e-learning. There is very little academic research into issues surrounding REL because this is a recent development. At this stage of implementation of REL, the literature on the topic is limited. The following three definitions are commonly used:

1. Josh Bersin defined REL as a category of online training content, which can be developed in weeks, can be authored by subject matter experts (SMEs), and maintains instructional focus and quality (Bersin & De Vries, 2004). REL tools leverage on common software such as PowerPoint and then convert that to Flash or other formats for Web delivery with options to add audio and simple quiz. Content is published, edited, and republished by the SMEs with little or no assistance.
2. Patti Shank, President of Learning Peaks, broadened the definition to include rapid instructional design, development, deployment, and evaluation (Shank, 2006). REL is no longer just synonymous to the rapid authoring and development of content, but also to the streamlining of the entire project management process and production cycle.
3. Another possible definition of Rapid E-learning is when the phrase is used to indicate how rapidly e-learning is being adopted or embraced by an organization. (Tan, Lee & Goh, 2004).

The definitions by Bersin & Associates and Patti Shank, which include process and product, are widely accepted as the main definitions of REL.

TOOLS FOR CONTENT AUTHORING

Rapid e-learning tools can be classified into two types of applications: synchronous, real time, and asynchronous, any time software. Synchronous applications include virtual classroom tools like WebEx, Centra, Elluminate, Breeze Live, Interwise, and other software in this category. Presentations recorded during live lectures are reused in an asynchronous setting.

Examples of asynchronous applications include Breeze Presenter and Articulate, which convert Power-Point slides with audio narration into Flash animations with options to include videos, animations, progress tracking, and assessment quizzes. Software such as Camtasia, Captivate, and Qarbon Viewlets capture screens along with mouse movements and clicks.

Contribute, a scaled down version of Dreamweaver, allows SMEs to author and edit HTML pages in an interface that resembles Microsoft Word. Wikis and blogs can also be classified as REL tools because they enable SMEs to publish and edit content in asynchronous mode.

MANAGEMENT ISSUES

In Spring of 2004, Josh Bersin & Associates surveyed 228 e-learning developers, mostly from the corporate sector in the United States, concerning challenges faced. Results showed that the greatest challenge was limited financial resources, followed by tight deadlines. Time and cost savings are main reasons why organizations embrace REL. According to Bersin and De Vries (2004),

a course developed under the traditional production cycle with a timeframe of 3-11 weeks costing between $5,000 to $30,000 per instructional hour to produce with a team consisting of the SME, instructional designer, programmer, graphic artist, video and sound editors, and so forth, can be produced in less than 3 weeks with little or no budget and developed by the SME with professional guidance and templates.

The traditional production cycle:

Needs Analysis → Instructional Design → Development with technical team → Deployment → Evaluation

The REL production cycle:

Needs Analysis → Rapid Instructional Design and Development → Rapid Deployment → Rapid Evaluation

The main difference between the two production cycles is that the instructional design and development phases in the traditional cycle are being combined. The SME is responsible for hands on development of the final e-learning product with little or no help from the programmer and graphic artist. The final product can be rapidly published with the click of a mouse button. Questionnaires with predefined categories are used to ensure that evaluations are carried out rapidly and efficiently. From a management perspective, REL frees up developers' time and they can be assigned to projects that require their skills. It also solves the problem of instructional designers needing access to SME time.

INSTRUCTIONAL ISSUES

The instructional issues discussed here encompass type, or level of learning, content change, instructor control, and quality.

The first issue to consider when considering use of REL tools is the type of learning required. Blooms taxonomy classifies cognitive learning outcomes into six cognitive levels arranged in the following hierarchy: knowledge, comprehension, application, analysis, synthesis, and evaluation. REL supports learning at the knowledge and comprehension stage and can be implemented effectively when PowerPoint is used to deliver content. As we move up the Bloom's taxonomy, REL is not a good option because REL tools lack sophisticated capabilities to assess student learning beyond setting up simple quizzes. The tools cannot author games, complex interactivities, and simulations. It is difficult to use REL to assess if a student is able to apply a learned skill to a new situation. In certain disciplines, understanding of abstract concepts is classified as "knowledge," level 1 on the Bloom's taxonomy, but this is best taught through simulations. Developments of such courseware will not be rapid. Patti Shank (2006) said that REL is best suited for level 1 of the Bloom's taxonomy and for information broadcast, news, and updates.

The second issue is how frequently content changes. Maintenance cost is significantly reduced when SMEs are independently able to record or edit content using REL tools.

The third issue to consider is the autonomy of instructors and the control they exercise in determining content and methods of delivery for instructional material and courses. This is probably more frequently addressed in the academic setting than in the corporate setting. For example, some SMEs are not comfortable with the use of technology. In addition to writing content, the SME plays an active role in development and editing, which could be overwhelming, adding to pressure and workload. New SMEs teaching a course for the first time and not familiar with content authored by someone else may not be able to rapidly record a presentation with audio.

A fourth issue to consider is the quality of instructional materials. This is both a technical and a pedagogical issue. In projects requiring studio quality sound and video, traditional methods are recommended.

The Role of Instructional Designers in REL

With REL, the role of instructional designers is slightly changed. Instructional designers act as guides and facilitators, helping SMEs write and develop content using REL tools. REL is usually used to author content in small chunks of reusable learning objects (RLOs). The design of the course containing a sequence of RLOs, assessment, tracking, forum discussions, deployment, course evaluation, and revisions still require traditional instructional design skills. Hence, the role of the in-

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