If You Give a Student a Computer

Patrick McElroy Suggests a Win-Win Model for Managing Growing Demand for Digital Learning Content


One of the NLII’s top priorities is the fostering of market structures for the development and delivery of interactive learning materials. The program is focused especially on markets that provide the evaluation, acquisition, distribution, and publication of proprietary, Web-based digital learning materials. Patrick McElroy, founder of Learning Content Exchange and NLII annual meeting 2003 general session speaker, has worked with publishers as well as courseware and technology companies in helping them create business models and distribution strategies for digital content.

These days, the question of whether information technologies are transforming higher education has become more rhetorical than actual. Even so, colleges and universities continue to rely on old business practices that do little more than stem the flow of digital content into the hands of faculty members, researchers, and students. Can higher education reengineer itself to be more responsive to learning needs and market changes? Or will it forever find itself reacting to pervasive demands for high-quality digital content and controlled by the industries that provide learning materials?

Learning Content Exchange (http://www.learningcontentexchange.com/home.html) founder Patrick McElroy says higher education doesn’t have a choice: Either it recognizes the power of collaboration or it risks losing its influence in the digital content marketplace. “There is a point in every major industry when the balance shifts from the old to the new,” he said, pointing to the cultural sea changes that resulted from the transcontinental railroad in 1870, the computer industry from 1986 to 1995, and Napster in 1998. “It’s often difficult to see the disruptive forces of transformation when you’re in the middle of it,” he said, “but as Intel (http://www.intel.com/) chairman Andy Grove pointed out in his theory of strategic inflection points, you know it when the balance
shifts from the old to the new, and it never comes back.” E-learning and academic publishing, he said, are precisely at that point right now.

Today, a number of pressures are bearing down on higher education. As academic technology is growing, resources are shrinking. Students expect a technologically sophisticated environment when they enter institutions, and they expect and demand electronic interaction. And while availability of copyrighted digital content is exploding and becoming more difficult to manage, institutional cultures around those issues—and the unique nature of how institutions deal with faculty, learning materials, and student expectations—are changing slowly. At the same time, academic publishers are exerting ever-increasing power over the market.

According to McElroy, as academic publishing hits its strategic inflection point, there are as many opportunities as there are challenges for colleges and universities. The challenges will manifest themselves as the quantity and sources of Web-based digital learning materials escalate, thereby making it increasingly difficult for faculty to locate and evaluate the content from multiple publishing sources. At the same time, the number of technology-savvy faculty interested in and capable of producing and publishing digital content will continue to grow. Institutions that provide mechanisms to support the publication and distribution of copyrighted digital learning materials—and that account for and distribute royalties on behalf of those faculty—will have a significant advantage over those that do not.

McElroy’s vision for how higher education can succeed in the new world of digital learning materials appears in a paper distributed to NLII annual meeting attendees: Managing Digital Learning Content in Higher Education Institutions (http://www.educause.edu/asp/doclib/abstract.asp?ID=NLI0338). It says that in the new, digitally rich environments, “each institution will strive to provide their faculty with services that enable them to easily evaluate and select learning materials for their students from a wide variety of publishing sources. Each institution will also strive to provide
their students with Web-based learning materials for their class work and independent research. And, each institution will find it necessary to develop internal processes to support these services in compliance with the terms and conditions they have negotiated with each publisher in each licensing agreement.”

Turning this vision into reality depends on whether higher education chooses to be reactive or to be proactive. If reactive, colleges and universities will continue clinging to their current business practices and making attempts to fit the management of digital content into their traditional processes. Invariably, they’ll attempt to develop an in-house solution that’s more or less an extension of the current campus or systemwide business practices. By doing so, they’ll fail either to respond to the unique challenges of Web-based digital publishing or to benefit from the unique opportunities the digital revolution promises.

In theory, the approach bears a striking resemblance to what former Educom (http://www.educom.com/) vice president Carol Twigg referred to as the “bolt-on” approach to information technology—or the tendency to attach new technologies to old systems, which sabotages the potential of information technology to reduce cost, increase access, and improve the quality of higher education. Like Twigg, McElroy supports the notion of a collaborative approach to the management of copyrighted digital learning content wherein institutions of higher education abandon costly single-institution—or even single-course—solutions in favor of multi-institutional solutions that not only enable institutions to exert influence over the industry but also infuse the higher education industry with the buying power and flexibility that are essential to its unique learning-materials needs.

According to McElroy, the cost of the reactive approach for managing digital content is substantial. Existing and incremental campus resources—such as administrative, legal, and information technology resources to develop and sustain an adequate infrastructure for the acquisition, management, and distribution of digital content—will further strain
institutional budgets. It will likely mean higher prices from publishers and difficulties in sharing content with other institutions. And it could both inhibit faculty effectiveness when it comes to evaluating and aggregating Web-based content for students and minimize the ease with which students can acquire content for class and independent study. This direction, according to McElroy, means ineffective, inefficient, and costly acquisition and distribution processes for digital goods in higher education.

Perhaps more disruptive will be the increased control of the market by content providers and publishers and the higher costs that will result from the failure of colleges and universities to leverage their power as consumers. “Publishers attempting to distribute copyrighted products to a highly fragmented marketplace will inevitably incur higher costs,” says McElroy. Those rising costs combined with a fragmented distribution mechanism will likely make it less attractive for publishers to create academic materials in digital form. The alternative is for higher education to embrace a collaborative—or proactive—model that McElroy refers to as a “shared resource utility,” which is designed to meet seven objectives:

1. To provide learning institution administrators with the tools to license Web-based proprietary content from publishers on behalf of their institution
2. To provide a marketplace for institutions to sell institution-owned content
3. To enable institutional administrators to control access to digital materials in accordance with publisher license agreements
4. To provide faculty with access to a publisher-neutral, technology-neutral Web portal from which they can evaluate and aggregate digital materials from a variety of publishing sources for student and classroom use
5. To provide students with access to a publisher-neutral, technology-neutral Web portal from which they can acquire digital learning content from a variety of sources in a single, secure transaction
6. To provide publishers—both commercial and institutional—with a marketplace in which they can effectively distribute and protect their copyrighted materials and in
which royalty and licensing fees are collected and paid to the publisher or distributed on their behalf.

7. To provide publishers with a marketplace in which they can effectively and efficiently promote their publications.

With those objectives met, higher education is served by three models: a digital bookstore, a digital library, and digital reserve stacks. “It’s not enough to have a market model,” says McElroy; “you need a business model.” As he sees it, the market today isn’t working because it’s both producer and producer-centric—a model, he says, that has failed in every segment of digital commerce. The proactive model would benefit publishers as well higher education because marketing costs are reduced and publishers don’t have to deal with hundreds of institutions. “The reactive approach is exorbitantly expensive, and it doesn’t work,” said McElroy. “It only addresses internal organizations.” For more information on the NLII’s work on learning materials, tools, markets and standards, see http://www.educause.edu/nlii/keythemes/markets.asp.