E-Content

By Deanna B. Marcum

Technology's Payload

Digital resource development is progressing rapidly on many fronts. What do I mean by "digital resource development"? The answer may depend on the focus of a particular professional community. Whereas information technology and computing professionals tend to think of digital resource development as technological innovation in support of electronic access, the question that arises more naturally from librarians is, access to what? Even colleges and universities with advanced digital libraries are only beginning to give rigorous attention to content—to the "payload" that technology delivers.

To call attention to electronic content, or e-content, *EDUCAUSE Review* is inaugurating this department. E-Content columns will look at how higher education institutions can create, organize, sustain, and evaluate e-content of value to students, teachers, and scholars. The overall goal of the department is to encourage and enhance collaboration in e-content development among librarians, IT staff, teaching faculty, and others with roles in making scholarly resources available to campus communities. We will strive to make the department useful to everyone with a stake in digital resource development—to campus executives and faculty as well as to librarians and IT staff. Although the library perspective will be represented and many contributing authors will be librarians, this will not be a department about libraries. Instead it will illuminate the challenges faced by all who are trying to use electronic technology effectively to serve teaching and research.

For example, one topic being developed for a future column is digital content use. What do we know about how students and scholars explore and exploit the library catalogs, collections of digitized books and journals, and related resources available online? What kinds of content and search services are most useful to them? How do they go about locating what they need? How helpful are online offerings of campus libraries compared with the offerings of other Web-accessible information sources? Librarians are refining techniques for measuring the number, duration, and nature of "hits" on Web sites with digital resources, but can they evaluate quality—that is, the extent to which a Web site visit satisfies a need? What has been learned in current studies designed to help higher education institutions, their libraries, and other content providers improve collections and services?

Another planned column topic is the work that librarians and course-management software vendors are undertaking to ensure that resources provided to students in commercial programs are high in quality and include relevant holdings of campus libraries. Additionally, column authors will analyze obstacles to digital preservation, issues in electronic publishing, opportunities for online cultural enterprises, and questions about the future of digital resource development. The department will also include some wide-ranging opinion pieces by noted librarians and scholars.

All of these columns will offer insight into digital library activity as it enters a new stage, one focused less on technology than on the value of what the technology delivers. In the first stage of digital library activity, developers concentrated

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on getting digitized collections online and simply assumed that use and users would follow. But the "build it and they will come" philosophy did not suffice. As a result, librarians, technologists, and scholars are increasingly building collections that integrate the online offerings of libraries with the traditional holdings still in the stacks. Getting the technology right is but one of the challenges. Which resources from outside should libraries lease or otherwise arrange to make accessible on their campuses? Which should they digitize from their own collections? Is it worth the cost to convert rare and special collections to digital form for easier access by the scholarly community? Can librarians identify, capture, and organize Web-based materials of importance to the many disciplines represented in the college or university? How can digitized resources, which are vulnerable to both media instability and system obsolescence, be preserved and kept accessible over time? How well do collections of the printed materials that libraries have accumulated over the years serve the needs of faculty and students today?

Books and journals have been the foundation of libraries and the building blocks of knowledge for centuries. Traditionally, scholars have conducted research in library collections and published the results in monographs and articles that libraries then collect for use by others. The library has historically been the campus organization that preserves scholarly resources for the long term, enabling students and faculty to find what they need for classroom study and for the creation of scholarship—generation after generation. But today's technologies enable scholars to study texts and consult catalogs from around the world and to speed up publication by posting their scholarship on the Web. A URL is now as likely to appear in a course syllabus as is the title of a traditional book or journal article. Unlike books and journals, the Web is not under the care of librarians. How, then, can this electronic content and digital scholarship be made perpetually accessible?

Taken as a whole, the digital revolution is changing education and research more than simply incrementally. It is transforming scholarship itself, along with the insti-

tutions that support that scholarship. No longer are digital resource developers limited to creating "interesting," discrete projects. They are now constructing new infrastructures to support a range of integrated digital collections and services. No longer are digital projects regarded as relatively low-cost "learning experiences," financed by externally raised, "soft" money. Whereas digital development began as exotic experimentation on the campus periphery, higher education institutions now increasingly incorporate it into their central services.

Nonetheless, digital libraries are recognizing that there are limits to the ability of each library, individually, to supply all the online resources that campus patrons increasingly want, expect, and even demand. From the individual aspirations and capacities of those involved in creating e-content, a common vision of digital resource development must be forged. It cannot come only from systems developers working in isolation. Future content and services must be jointly determined by faculty members who use digital resources in teaching, by librarians who organize available material for access and preserve it for subsequent generations, and by information technologists who ensure the technical capacity of systems to deliver information to the required locations. Top academic administrators also must take part, particularly in analyzing financial requirements and ramifications.

As we craft a collective vision for the future of digital libraries and other providers of electronic materials, content must become the first consideration, rather than an afterthought. E-content is the payload essential to the technological mission. In succeeding issues of *EDUCAUSE Review*, this department will try to play a part in meeting the needs of that mission.

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