On the Curation of Instructional Content

Higher education institutions are prodigious content producers. Although there are longstanding policies in place to permit the curation of instructional content and of the transactional artifacts of the learning experience, librarians have traditionally concentrated more attention on research. This stance is quite justifiable given the massive amount of research data being generated today as a result of revised data-planning requirements by grant-funding agencies. However, with the tacit rules governing instruction and with market pressures rapidly evolving, has the time come for librarians to intentionally curate instructional content, in all its unwieldy diversity? And as we come to better understand the lasting value of data analytics, what would be the consequences of inaction? Regularly adding instructional assets to managed library collections would offer some advantages:

- Systematic preservation will promote greater facility in data aggregation for national and global efforts to apply learning analytics and inform future pedagogical choices.
- Use of curated content could be tracked over the years, chronicling how a given subject was taught through time.
- Curated content preserved in accordance with defined library standards could offer some safeguards in the face of increasing market competition.

Both market forces and changing expectations surrounding the use and availability of instructional content have influenced libraries’ role as content providers. Commercial solutions that monetize instructional activities and gather information on their use are proliferating. An increasing reliance on commercial vendors for the delivery of instructional content could have the following results:

- *Disintermediation* (commercial efforts to eliminate the college/university as an intermediary in the instructional transactions between faculty and student)
- *Dislocation of instructional content* (storage of content anchored in proprietary platforms, outside of the control of the college/university, conceivably in perpetuity)
- *Appropriation of data analytics* (collection, aggregation, and monetization of data on usage patterns, for example, without adequate college/university compensation)

Though the market paradigm does present challenges and even some threats for higher education, it also offers opportunity. Leaving aside the disruptive effects of mergers and acquisitions, entrepreneurial efforts can serve as a way to sustain collaboration over time efficiently. In a MOOC offered through Brigham Young University in the fall of 2012, David Wiley described how sustained collaboration is not currently rewarded in higher education: “We have all witnessed so many good collaborative initiatives fail in higher education due to a lack of funding, or political reasons, or a lack of sustained central commitment, that it does make it difficult to continue to try. Most troubling, we are failing for the wrong reasons—lack of sustained collaboration is less an indicator of the quality of the solution and more a byproduct of our dysfunctional business interactions.”

Describing one consequence of increased commercial penetration, Fred Wilson, managing partner at Union Square Ventures, observed that vendors would ideally like to position themselves in between the learner and the instructor. The majority of venture capitalists no longer desire a business model that requires the approval of an IT department or school district. Instead, they want their products to go viral, with the financial transaction occurring at a micro level so affordable and so frictionless that it is almost an afterthought by the student or faculty member contemplating a purchase. The requirement of more immediate returns on investment has affected the slower-moving world of education: accelerating the velocity of innovation and, in turn, obsolescence.

For many libraries, a focus on the quotidian remnants of instruction has heretofore fallen outside their custodial responsibility. Although delivery of instructional content to the library is not a problem from a technical perspective, normalization and broader adoption hinge on a fundamental commitment from campus leaders to develop programmatic strategies and sponsor curation activities.

As campuses grapple with renewed interest in online learning, strong growth in the volume of newly created instructional content, and increasing demand for production support, many continue to stow away these fragile assets in isolated repositories. Additionally, most content today derives its context from its placement within the instructional sequence, produced with little-to-no metadata. Offering persistent content-centric services is essential for instructional assets to be managed, integrated with other critical data initiatives, and linked conclusively to a specific instructor through a persistent digital identifier. To establish instructional content as a discrete digital object would transcend the traditional organizing framework of the course.

Fundamentally, content can be defined as a static collection of faculty-produced and -licensed materials that make up the...
curriculum. The rise of social media brought with it the ability to capture what was once a transient part of the live classroom experience. This transactional component of learning can now be tightly woven into online instructional activities and enjoys increasing interest among the research community. Educational researchers are attracted to this newfound source of information on social interaction because it sheds light on student motivation and can chronicle the genesis of student learning.

At the same time, the “mashing” of content across multiple delivery channels has resulted in some interesting compliance conversations. Content today could include text, images, animations, gaming functionalities, and captioned video, all with second screen integration. One might discover segments of copyright-protected material layered into an instructional module bearing faculty intellectual property (IP) with socially annotated student IP orbiting around that. In addition to providing technical and compliance assistance to faculty, academic support staff now must face the challenge of sorting out ownership rights and tracking provenance of these “fractal-like” bundles.

In a presentation on the UCLA Broadcast News Archive, Sharon Farb articulated one benefit of housing content in library-curated collections. She observed that widespread distribution of isolated video artifacts became possible because UCLA was able to re-characterize this content as a library asset. This move considerably strengthened UCLA’s copyright-protection position. Could the same be true for instructional content curated in library collections?

Describing scholarly assets at the Spring 2013 Coalition for Networked Information (CNI) Membership Meeting, Herbert Van de Sompel opined that content is no longer “atomic.” Librarians now regularly deal with “bundles of compound interdependent objects.” Further, he admitted that when he and others were working on the Open Archives Initiative in 1999, “they did not understand the extent to which search engines would be such an integral part of the web infrastructure.” Search engines have made it easier to find all sorts of content, redefining the boundaries that once plainly separated the various academic databases. Moreover, the “buckets” that distinguish content types—such as journals, articles, and websites—are also disappearing as search algorithms become more sophisticated in locating information. Even the objectives of content are changing. As educators emphasize learner-centric interactivity and as commercial developers increasingly focus on end-user engagement, the boundaries that delineate content types will continue to blur. As Van de Sompel described: “The semantic web and the filter of the web graph will ultimately impact how these bundles of web content can be aggregated as web resources.” The curation of instructional content would be no different, relying on federated search and indexing and founded on a commitment to open access and decentralized processes.

The topology of content is changing, and this has affected the economic value of instructional assets. But the seismic shifts we are witnessing emanate less from a technological revolution and more from an evolving business model. One clear driver for the momentum surrounding commercial interest in the educational marketplace has to do with data analytics and their ability to provide insight on how students learn and interact in technology-mediated environments. However, to anchor the collection of analytics in the use of a given learning platform is to relegate data collection to the platform provider. In many respects, the course is too broad a measure. And by establishing the instructional artifact as a discrete digital object within managed collections, those of us in higher education have an opportunity to stake out a claim to the content we regularly produce. We need to reconsider the status of this content as intellectual capital, ensure its ongoing usability, protect faculty IP, and keep the content from being hidden away behind the paywalls of proprietary ecosystems.

At the same time, partnering with the private sector has had clear benefits for both research and instruction over the years, particularly when long-term strategic alliances have been forged. Ideally, campus leadership will find new ways to incorporate entrepreneurial activity internally, within institutional processes. Doing so would enable colleges and universities to replicate some of the motivators that drive for-profit industry to sustain broad collaborative initiatives and would give higher education an opportunity to throw off the stigma of the ivory tower as a beacon of bureaucratic inefficiency.

Notes
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2. EdStartup 101 open online course, fall 2012 (http://edstartup.net), taught by Richard Culatta, Todd Manwaring, Aaron Miller, and David Wiley.
5. Second screen integration is the ability to call up multiple devices for presentation, input, and consumption of supplementary content.
6. In a winter 2013 system-wide committee meeting of University of California librarians, participants referred to these bundles of content as “fractal-like,” “knot-like,” and a “mosaic,” which can persist indefinitely.
9. Christine Caldwell, UCSC Librarian, in a presentation to IT managers (UCSC, Fall 2012).
10. Van de Sompel, “From the Version of Record to a Version of the Record.”

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