

University Consortium Reimagines Infrastructure for Digital Content and Data

By Dian Schaffhauser • 06/12/14

Four major universities have banded together to create an infrastructure for digital learning. The work of the Unizin consortium, as it's called, will be managed under the auspices of Internet2 and will have three goals to start:

- Setting up the mechanisms for managing and sharing digital course content;
- Doing integration of software to be used for courses, whether flipped, face-to-face, online, badged or MOOC-based; and
- Building shared capabilities for performing data analytics.

Founding members Colorado State University, Indiana University, the University of Florida and the University of Michigan have each committed about a million dollars over three years to the initiative, which will go a long way toward maintaining an anticipated professional services staff of about 20 people.

As James Hilton, U Michigan dean of libraries and vice provost for digital education and innovation, summarized, the work is "about creating common gauge rails. It's about leveraging open standards to make sure that content and data can flow between tools and systems rather than remaining locked up inside a single tool."

He provided the example of his institution's use of massive open online course platform Coursera. "We're very happy in continuing in that relationship. We're discovering lots and lots about learning at scale through our partnership with Coursera," he explained. "We want to make sure faculty teaching MOOCs through Coursera are able to use the content and data and learning objects from that system in our campus learning management system as well. Unizin is about tilting the table in favor of interoperability and university control."

The primary driver for Unizin is to ensure that institutions retain the rights to their own digital materials and data. A blog article by Indiana U's CIO Brad Wheeler [unizin.org/blog/] compares the outcome of research universities relying on others to publish academic journals with the outcome of a cross-institutional effort to build a high-performance network. In the first case, he wrote, "We now pay an escalating, collective billions to rent the right to read our own scholarship each year." In the second case, which resulted in Internet2, 250 college and university members now have access to 100 Gbps speed.

"The lessons could not be more stark," he noted. "Universities benefitted immensely when we came together to steer our own path to scale by creating, owning, contracting, governing and then uniquely using shared infrastructure to serve each university's mission. Internet2 is our

network, and we have decision rights to set policies, business models, terms — and manage costs to best serve higher education."

Alongside the monetary investment, participating schools are also committing to the use of off-campus cloud services to host the programs, content and data generated by the project. For example, all four institutions have already adopted or are in the process of implementing Instructure's Canvas. This cloud-based learning management system fits well into the Unizin philosophy, Wheeler said, by virtue of its use of IMS Global Learning Consortium standards such as Learning Tools Interoperability (LTI) that facilitate interoperability and the availability of a broad collection of "innovative add-ons" that extend the functionality of Canvas through open application programming interfaces.

Wheeler predicted that Unizin could grow in the same way that Internet2 grew — by being incubated "by a few universities coming together" and others signing on as the services are introduced. He added that the consortium "is open to other founding investors coming in as we build this thing and it grows."

According to coverage [<http://mfeldstein.com/unizin-indiana-universitys-secret-new-learning-ecosystem-coalition/>] by education consultant Michael Feldstein at MindWires Consulting, the Unizin founders will also introduce a learning object repository (LOR) where digital content from "small learning objects to full courses" will be maintained and shared across institutions. This might include a "content reflector" to prevent the uploading of duplicate content that already exists in the system.

On top of the technology is the policy-setting, to address such questions as faculty rights and management related to digital content, and workflow needed to help faculty members know what to do with their content once it's created. As Hilton pointed out, "We've had 500 years to figure out what the workflows are around print. All I have to do is pursue my teaching and research and I get funded, it gets published, it gets collected, it gets preserved. In the digital world, I'm clueless." The new environment will empower faculty, he explained, "to move stuff to where they want to move it and have confidence that it'll be available for them and available for others if they choose."

Perhaps the most ambitious aspect of Unizin will be in the area of data analytics. While the use of data on campus currently gets a lot of attention, the specific goal of Unizin is to improve student success. Patrick Burns, Colorado State's vice president for IT and dean of libraries, called it "educational moneyball": "It's a very extraordinarily complex space right now. It's very young. We're convinced that together, we can learn better, faster, more efficiently, more effectively. We'll get the greatest common denominator of output from among our collaboration with the least common denominator of input. Simply put it's going to be much better for us to do this as a collaboration than each one individually."

The analytics functionality is expected to include metadata that can be used across institutions for comparison's sake. The sooner that capability is available, said Elias Eldayrie, vice president and CIO at U Florida, "the faster we're going to be able to do the analytical work that every institution is trying to do on its own. Yes, there are tools out there; but none of them are comprehensive or seamless enough to allow us to do the work that we envision with Unizin." In the case of his school, that includes the ability to customize the learning experience for students based on how individuals learn and what the "most effective methods" are for teaching students.

What Unizin will not do, emphasized Eldayrie, is oversee or short-circuit the job of the instructor. "Nobody will ever take a course from Unizin. It's about creating content the best way we can."

About the Author

Dian Schaffhauser is a writer who covers technology and business for a number of publications.