



Barbara Weist at the University of Puget Sound can update the CMS live from the college's natural history museum.

Ross Mulhausen, University of Puget Sound

Web Content Needs— **SOLVED**

By Vicki Powers

Options abound for web content management systems—open source, commercial, even something in between. But the considerations need not be a mystery. Here's what to know when making a choice.

WITH MORE THAN 2,000 CONTENT MANAGEMENT SYSTEMS (CMS) on the market, it's no wonder college and university administrators are often confused when selecting an option to meet their web content needs. What's better? A proprietary commercial CMS featuring support and maintenance from a vendor or an open-source CMS solution enabling web developers to customize code to their specific needs?

In the last few years, this fragmented market has experienced consolidations with Oracle, OpenText, and Autonomy acquiring prominent CMS vendors. Also, the lines are blurring a bit between open source and commercial options, and new organizations—such as Acquia Network—are evolving as third-party vendors to support specific open-source CMS solutions like Drupal.

“Content management systems are no longer siloed applications, but really part of the critical plumbing,” says Stephen Powers, lead analyst at Forrester Research. “We’ve seen web CMS go from a technology solution to a business solution.”

According to the January 2009 Forrester report “Web Content Management Investment Continues Despite the Challenging Economic Climate,” the top driver ▶

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for increased CMS deployment is improved customer experiences.

Powers says that the power of a content management system is more than just getting content on a server. A CMS focuses on how to leverage content to increase sales, improve customer service, or attract potential students. Vendors dealing with higher education must remember that today's web visitors have high expectations and want to see elements of rich media, social media, and community collaboration, he notes.

Following are the major pros and cons surrounding several aspects of CMS that are important as campus administrators make a decision on what kind of tool to choose.

1. SOLUTION COSTS

Barbara Weist, web manager at the **University of Puget Sound** (Wa.), says colleges and universities can't scrimp too much or they won't have a functional website. "It's worth it to buy if you can afford a small-scale CMS, especially if you're going to pay for support anyway," she believes.

Her team selected FastSpot, a Baltimore-based interactive marketing agency now known as Door No. 2, to build new web features using the solutions provider's homegrown CMS, BigTree. For example, unlike with the previous system, the CMS from BigTree supports multiple templates that can be designed to work with modules or page content. According to Weist, the university amortized the cost of the website (including the CMS) over five years.

"If you don't have the funds, you don't have the funds," she says, "but there has to be a balance. Our audience is primarily teenagers and they expect to find information online."

Now on its second CMS system, Weist says the university learned from a past implementation and decided to pay for content conversion in the FastSpot contract. FastSpot moved about 80 percent of the university's 15,000 pages into BigTree.

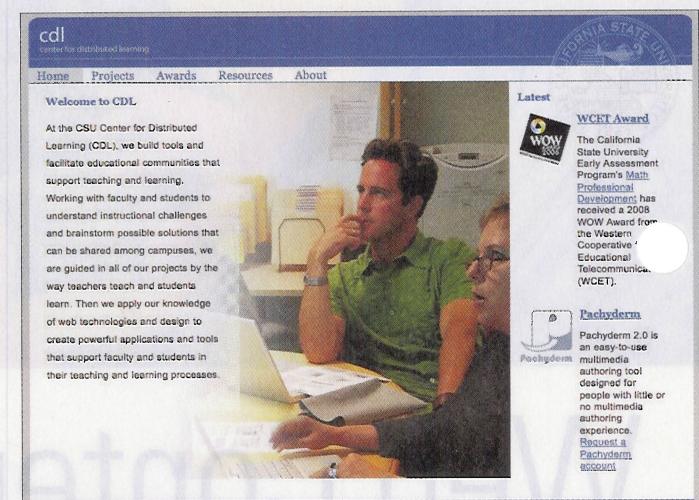
"That was a lot to get into the new system and make sure the

The strength of a CMS is more than just getting content on a server. It can leverage content to increase sales, improve customer service, or attract potential students.

information architecture was right," Weist states. "Last time, we put up about 150 core pages in the beginning and slowly added content over three years. We didn't want it to take that long this time."

The typical assumed "pro" for open-source CMS software is the low initial cost, says Bill Rogers, CEO and founder of Ektron, a commercial CMS provider. This can certainly make it attractive to budget-conscious organizations. A commercial solution usually involves an upfront license fee and ongoing product support maintenance fees. For some organizations, this can be a barrier.

However, Rogers believes most decision-makers at higher ed



The MIT Media Lab homepage (top), created with Drupal, features four dynamic content blocks. Cal State U's Center for Distributed Learning developed a customized quiz application using a WebGUI template.

institutions now see that the total cost of ownership is lower with commercial solutions than it is with open source. He says this realization is especially true when it comes to institutions that are in need of ongoing support and maintenance for users with various skill sets.

2. TRAINING AND TECH SUPPORT

Technology folks at **Lehigh University** (Pa.) selected commercial content management system software from Datatel more than 10 years ago—and still believe it is the best all-around choice for the university. Purchasing a commercial solution allows in-house staff members to focus their time and expertise on design and communication effectiveness rather than on maintaining the nuts-and-bolts of their CMS systems.

"With thousands of prospective students, alumni, researchers, corporate and government institutions, sports fans, and other constituents viewing our website each day, it is crucial that we deliver the most productive and satisfying experience possible," says Steve Oblas,

CMS Selection Rules Worth Following

Think beyond traditional needs. The typical reason colleges and universities are seeking a content management system is to increase their operational performance, says Bill Rogers, CEO and founder of Ektron. "These schools want to increase the efficiency of getting content to the web, but it's not the only reason to add a CMS solution." Rogers says the higher education market should start thinking beyond that and toward things such as how to use the web to engage alumni to increase donations and how to create a platform where students, faculty, and parents can collaborate. A CMS could be used to, say, help the admissions department increase "conversions" of prospective students. Be careful not to define what you need in a CMS without considering the needs of everyone within the organization, including staff, prospective and current students, alumni, parents, and the community, he adds.

Understand highest-level business goals. University websites encompass so many different components these days—with standard informational content, marketing messages, endowment information, social interaction capability, and the brand. These aspects don't always have the same goal, points out Vern Imrich, chief technical officer at Percussion Software. "The biggest thing is to understand clearly what it is you're trying to solve with this purchase. If you can isolate that out, you'll have a much better idea of how to decide when you need a new system and what you really want out of it."

Seek opportunities. Open-source product Drupal is well-suited for environments with lots of sites, says Bryan House, senior director of marketing at Acquia. The biggest differentiator is "community," with 600,000 users registered at <http://drupal.org>. House says it's a fundamental shift for universities when you don't have to spend six to seven figures for software. It's a nice fit in higher education, and the reason it's established a foothold and has been so widely adopted by institutions. "Look for opportunities to start small, fail fast, and grow," House relates. "With little success points along the way, it allows you to mitigate risk and learn as you go."

executive director of internet services and new media at Lehigh.

Training and tech support was critical as Chestnut Hill College (Pa.) administrators selected a content management system. When John Keller started as website manager three years ago, his first task was getting a new CMS. After a five-month selection process, Keller selected a commercial system called Ektron CMS400. In his opinion, a commercial solution is much easier for small colleges and web departments who may lack time and expertise.

"Tech support was huge for us," says Keller. "We can be at a low skill level and call or e-mail Ektron for help and instant gratification. Their job is to solve your problem."

Chestnut Hill maintains a small web department, and Keller admits he's not well-versed in CMS. With a commercial CMS solution, Keller says the product is as great as the team (around 30

people) at Ektron makes it. He can choose what to implement and they provide the support for web developers. Conversely, "open-source CMS requires more know-how from the developer, and it's only as great as you make it," Keller adds.

3. COMMUNITY COLLABORATION

Jeannie Finks, webmaster at MIT, transitioned the university's Media Lab website from a static HTML site to Drupal, a free open-source CMS solution, several years ago. One factor that proved appealing to their decision was Drupal's ability to integrate with the custom in-house solution MIT had already built. The "free" factor was attractive, as well.

Now, at least 30 to 40 groups outside MIT's Media Lab are using Drupal. "It's amazing what has happened over the last couple of years with Drupal being an embraceable CMS," Finks relates. The Media Lab has 20 to 30 Drupal sites of its own, from project sites to the public site.

Websites in higher ed are more about ability and interactivity with the external audience compared to websites in other industries.

With the growing success of Drupal, Finks says people provide modules and share code and information for free in the open-source community. Finks also believes that it makes their internet lives easier.

At MIT, for example, Finks says Drupal is enabling people to share and publish information from those you wouldn't normally hear from, such as scientists who are excited to publish their work. They're becoming Drupal enthusiasts, she says.

Colleges and universities that don't have the funding for proprietary software can turn to other institutions in collaboration, says Kristi McCombs, director of documentation and training at Plain Black, a Wisconsin-based provider of WebGUI, an open-source CMS solution. By using an open-source CMS solution, colleges and universities can participate in online communities and forums maintained by open-source solution providers to find others who are using it. Different sections are generally geared to developers, designers, and end users.

"These schools can join resources, split up the workload, and share what they've done with each other," McCombs says. "It becomes a collaboration among their staff instead of an issue of funding and budgets."

4. FLEXIBILITY AND CUSTOMIZATION

While some industry websites, such as those in healthcare, are concerned with governance issues, higher education sites tend to be much more about agility and interactivity with the external audience—such as prospective students, points out Vern Imrich, chief technical officer at Boston-based Percussion Software. "The universities are in a 'herding cats' situation where they want some ability to pick and choose, but [don't want to] lock it down so much that people are frustrated with the system." ▶

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Drupal enables MIT's editors to quickly publish and unpublish content on the fly, says Finks. The HTML site depended on technology folks to publish the content. Now, she says all types of skill levels can publish quickly and confidently.

One of the attractive features of open-source CMS is the flexibility of the software. McCombs describes how commercial CMS solutions are not changeable without much expense and jumping through hoops. Also, only employees of the proprietary software company are allowed to work with the code. With open source, universities and colleges can do whatever they want to the code.

"There are no restrictions against it since it is completely open," McCombs says. "As a developer or designer, you also are free to distribute it without cost."

She adds that developers can take an open-source product such as WebGUI, eliminate the pieces they don't need, keep what they do need, and bring in third-party software and integrate with that.

Wellesley College (Mass.) selected Bluenog ICE (Integrated Collaborative Environment) as the foundation for its 50,000-page website based on its flexibility and anticipated growth plans for three to five years out. Bluenog ICE is a commercial solution built on open-source CMS. The college previously used a Dreamweaver HTML site that hadn't changed in four years.

"This site is all forms-driven, allowing different people to contribute," says Veronica Brandstrader, director of planning and communication for information services. "The difference is phenomenal. And we're introducing Web 2.0 things, so it's actually an 'of this decade' website."

5. SECURITY

Lehigh's Oblas asserts that security issues are a concern in either type of CMS implementation, but the resolution varies. Assume a vulnerability is uncovered with a particular release of the commercially licensed CMS software, he advises. Although service and support agreements vary, Oblas says the provider is accountable for the product integrity and bound to resolve the problem quickly on your behalf.

In the case of open-source CMS

software, he adds, universities may have to wait for the next release to come along from the developer community once a vulnerability is uncovered. "The responsibility of keeping up with those new releases, as well as installing them, rests with the system administrator at the institution."

Sastry Taruvai, co-founder and CIO at Bluenog, underscores that managing content securely is a key requirement for any institution. Typically, a content management system sits behind the firewall while feeding content to its constituents. Most of the time, separation of the presentation and the underlying content is a best practice to keep the content of your website unreachable to hackers.

Imrich has heard that some prospective buyers have ruled out various open-source products because of concerns over security.


"Security is one of those areas where you don't really know if you've got security right unless you have some level of expertise," Imrich says. "If you just download it, install the kit, turn it on, and start building, you'll probably have a very insecure environment."

For that reason, Imrich views security as a bigger issue for open-source products. Usually, if universities are not going with vendors, they are on their own as far as the right ways to deal with security configuration and deployment.

THE ROI FOR CMS

Oblas reports that Lehigh University's commercial CMS system provides a bigger return on its investment around quality and customer satisfaction with its websites.

"Spending less time on managing the underlying system allows us to spend more time performing benchmark studies of our competition, conducting focus groups and online testing, creating fresh visual content, and using analytics and user feedback to measure progress and plan next steps," Oblas says.

Even though the new Wellesley College site has not completely launched, Brandstrader is pleased with the anticipated changes. In particular, training folks to enter new content takes about 20 minutes now, she says, and people are thrilled. 

Vicki Powers is a Texas-based writer who specializes in covering technology issues.

Resources

- Acquia, www.acquia.com
- Alfresco, www.alfresco.com
- Alliance for Higher Education Competitiveness, www.a-hec.org
- Atlassian, www.atlassian.com
- Autonomy, www.autonomy.com
- Bluenog, <http://bluenog.com>
- Clickability, www.clickability.com
- CMSMatrix, www.cmsmatrix.org
- Datatel, www.datatel.com
- Door No. 2, www.door2agency.com
- DotCMS, www.dotcms.org
- Drupal, <http://drupal.org>
- Ektron, www.ektron.com
- Elements CMS, www.elementscms.com
- FastSpot, www.fastspot.com
- Fat Wire, www.fatwire.com
- Forrester research report, www.forrester.com/rb/research
- Hannon Hill, www.hannonhill.com
- Joomla, www.joomla.org
- Live Whale, www.livewhale.com
- Lullabot, www.lullabot.com
- Mambo, www.mamboserver.com
- OmniUpdate, <http://omniupdate.com>
- OpenSource CMS, <http://php.opensourcecms.com>
- Open Text, www.opentext.com
- Oracle, www.oracle.com
- PaperThin, www.paperthin.com
- Percussion Software, www.percussion.com
- Plain Black, www.plainblack.com
- Post Nuke, www.postnuke.com
- Sitecore CMS, www.sitecorecms.net
- WordPress MU, <http://mu.wordpress.org>