Can Your CMS Handle Success? A Practical Guide to Selecting a CMS

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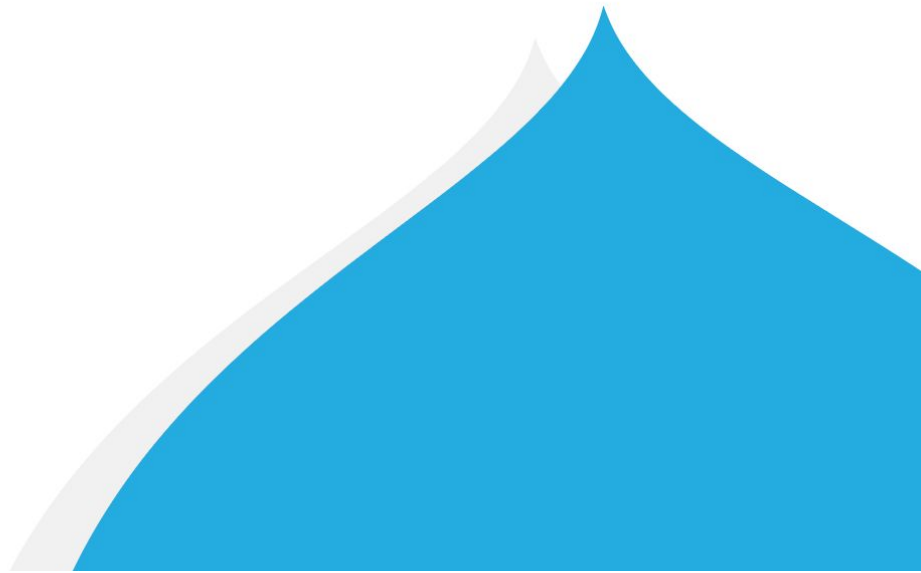
CMS Selection Guide: Higher Education Edition



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Introduction

Today, we shop in the virtual world of storefronts, whether we're pricing the options on a new car, comparing the attributes of a digital single lens reflex (DSLR) camera, or looking for a new home. Shopping for a college or university is no different. Long before a student and his/her parents ever take a walk through the ivy walls of a storied campus, they have spent many hours online shopping campuses, cities versus rural locations, an institution's noted majors, and aid packages. In fact, the great digital experience offered by an institution of higher education may be the best chance a school has to attract a student who will be looking at many universities—maybe scores of universities. And that number is only rising.

In 2010, only 9 percent of students applied to seven or more colleges or universities.

By 2011, 80 percent of students applied to at least three schools, and nearly a third applied to more than seven schools.

In addition to the process of shopping for a school, the application process for a student now occurs online, and alumni sites are a growing priority as well. In fact, many universities have dozens, or even hundreds of websites. Often each department has its own site, and, over time, institutions might have sites on many different CMS platforms.

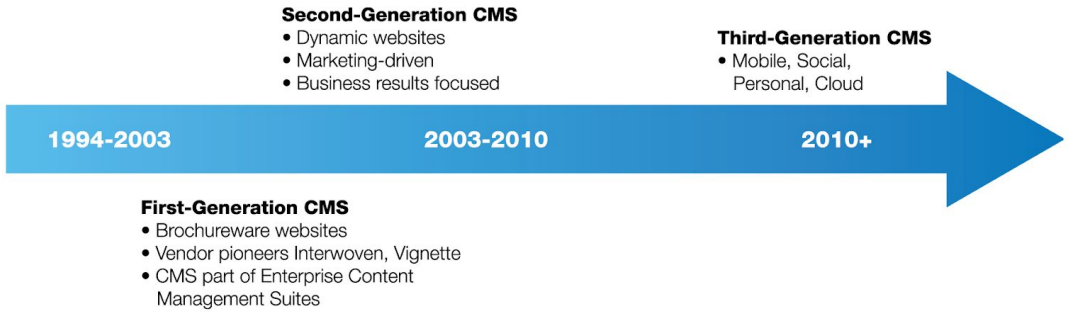
Colleges and universities are finding that the legacy, proprietary CMS platforms that they have in place are limiting their ability to attract the student that they may lose solely on the bad first impression created by a lackluster digital experience.

This ebook provides some insights into the demands facing colleges and universities in this highly competitive landscape and into best practices for choosing a CMS that meets the rapidly changing digital needs of higher education.

Chris Hartigan runs Acquia's higher education practice, working with the open source company's 450+ college and university customers to help them drive their digital strategies forward. Before Acquia, Chris was at Jenzabar, a technology leader in the higher education market, for 11 years where he served as vice president and general manager, leading the company's new venture initiatives.

The Rise of Digital and the Evolution of the CMS

History of CMS



In less than a decade, the world moved from the time predating either Facebook or the iPhone to a time when Psy's Gangham Style would draw more than 1.5 billion viewers.

In that short period, we have seen the rise of smartphones, including the iPhone and Android, the rise of the tablets, and the corresponding decline in desktop PCs.

Facebook and Twitter have become an integral part of the digital landscape—and our daily lives.

The rise of "digital" as the primary social meeting ground—and therefore the primary marketplace—has led to the need for the "next-generation CMS." This is the CMS that can provide an engine for content in midst of the digital-social revolution.

The first-generation CMS (1994-2004) essentially served as a brochure. Its pages were static and adding content was usually done by a webmaster, thereby limiting content creation. The second-generation CMS appeared on the scene in about 2003 as digital began its ascension as the primary social communications environment.

OpenScholar helps educational institutions manage information by providing Drupal-based professor pages, class catalogs and sandboxes, and extra tools for administration.

As the evolution of digital continues, though, the second-generation CMS has shown that it lacks some capabilities essential for success. Those drawbacks include:

- Mobile sites are either not possible or simply an afterthought with second-generation CMSs
- Expensive to own
  - High maintenance costs
  - Difficult to find experienced development resources
- Plagued by usability issues
  - Products were designed before the advent of modern user interface or UX best practices
  - New challenges for evolving content formats create bottlenecks in content creation
- Required multiple-point solutions
  - Lack of social community integration
  - External video solutions required

The third-generation CMS is driving past its predecessors by providing:

- Simplified content creation tools
- Responsive web design to ensure a great experience on all current and emerging platforms
- Native integration with social communities
- Open architecture to allow for easy integration
- Support for continual innovation
- Capability to deliver needed functionality dictated by the needs and timeline of the organization, rather than the development roadmap of a vendor

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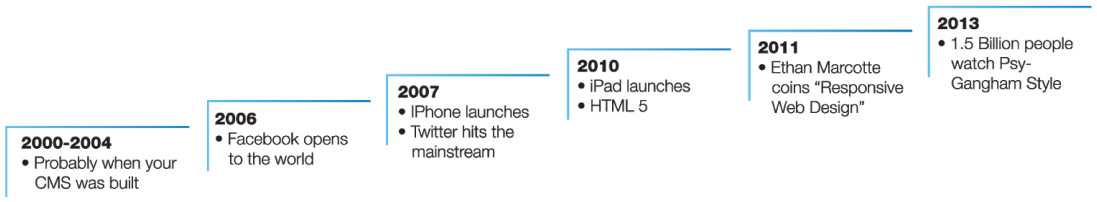
Putting It in Perspective



“Retirement Tsunami” of CIOs Threatens Higher Education

I remember being at Gartner Symposium in Orlando years ago and sitting in one of Mike Zastrocky’s presentations and listening to him talk about the issue of an aging IT demographic bearing down on colleges and universities. Mike’s warning was meant to serve as a call to action to the industry: Colleges and universities need to work actively on transferring technological skills and knowledge, cultivating a new generation of IT leaders, so that schools are prepared when the “retirement tsunami” hits.

And then I read an article in Campus Technology, which references a survey that was conducted by the Center for Higher Education Chief Information Officer Studies (CHECS), and Mike’s warnings rang again in my ears. According to the survey, 25 percent of higher education CIOs are set to retire within the next five years, and 50 percent are set to retire in the next 10 years. Let’s think about what that means: Within five years, approximately 1,000 schools are going to have new IT leaders in place who will be charged with driving a technological roadmap for their institution. What changes will this bring in the way these schools think about and use technology?

It is without argument that this group of departing CIOs has led the higher education industry through a revolutionary IT timeline. Assuming an average retirement age of 65(ish), the outgoing group of CIOs came upon technology during a true IT golden age. (Or maybe even earlier—23 percent of respondents to the survey indicated they’re either 61 or older. Do the math…). By all accounts this group was wide-eyed when the Apple I was released (1976), when IBM’s first PC came out (1981), and when personal productivity tools like Lotus123 were first introduced (1982). And by the time Mosaic, Netscape, IE, and other browsers brought the Internet to our screens and changed the way we would forever think about what computers do, this group of CIOs had already been steeped in IT for 20 years or more.

And of course 10 years after the entrance of the Internet, when this wave of CIOs may have already started thinking about retirement, the CMS conversation was front-and-center in the discussion of how colleges and universities can actually use the web for running the business of higher education. And here we are nearly 10 years later. This retrospective got me thinking: When the next generational shift happens in higher education after the pending one, what will be its legacy?

The third-generation CMS is driving past its predecessors by providing support for continual innovation, native integration with social communities, and open architecture to allow for easy integration.

Just as the past 30 to 40 years of IT in higher education can be characterized by how ubiquitous technology has become on campus, then the next 30 to 40 years and more will be characterized by how the technology itself has evolved in an open, free, and democratized model. Escalating license fees for large, monolithic software deployments? Proprietary application platforms that require teams of expensive experts to make changes? Closed technology systems that can't keep up with the speed of innovation? Do we really think that we'll be talking about any of these things in another 30 to 40 years?

Or, asked another way, do we really think any proprietary software system will be able to keep up with the speed of progress that is prevalent in today's large-scale, open-source projects that are spreading dramatically through the industry?

No doubt the coming IT leadership turnover has the potential to be a disruptive event. The change in the CIO ranks that is coming will help usher in an even greater understanding and appreciation for the strength of technology communities and the sheer power that these communities have in our industry. The future of IT in higher education will be characterized by open source, and in many respects the future is already here. In fact, the successful introduction of open source into higher education is a key accomplishment of this retiring CIO group. This retirement will pave the way for more innovative websites—20 percent of prospective students said they would remove a school from consideration because of a poor web experience.

In addition to all the other technology revolutions they've led the industry through, they've also been at the helm during the time when the conversation about open source on campus has gone from marginal to mainstream. By way of example, Drupal—the leading open-source CMS—has risen from nothing (created in 2001) to supporting over 25 percent of all dotEDU websites.

So while some change can be scary, I'm confident that the "retirement tsunami" will help us accelerate and grow the revolution of open source in higher education. This is a trajectory the current CIOs have set and is a path that promises to harness the power of open source to define the digital future of higher education.

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A CMS Must Build, Deliver, & Optimize

Colleges and universities are natural content generators with access to great thinkers, cutting edge research, and engaged students, not to mention they embody the word community. The web, as a result, was the perfect vehicle for them to communicate all they had to share and connect what they knew with those who were seeking the content that mattered to them.

A website is only as good as the content on the page. The ability to efficiently edit, upload, and share content across sites is vital to effectively delivering a great digital campus experience. Institutions today have so much content and so many constituents on the other end (students, applicants, parents, potential applicants, alums, faculty) that the ability to deliver personalized digital experiences is more critical than ever. Targeting each audience and being able to deliver relevant content, based on who comes to that page, increases engagement and conversion.

But with all that content, how do you manage each page effectively? Elevating your web strategy revolves around the rate at which websites can be deployed and the ease with which they can be updated and maintained. Staying ahead of the resulting tangle of websites and the associated costs is imperative in today's ever-changing digital world. Schools find that by using a central platform to deploy sites quickly from templates, as opposed to building each site individually, they can maintain certain brand and end-user experience expectations while maintaining security and accessibility requirements. Also, they can utilize a centralized platform dashboard to keep track of websites and prevent the orphan site issue. All of this would allow them to be forward thinking, focusing on site impact and user experience.

Today, we shop in the virtual world of storefronts, whether we're pricing the options on a new car, comparing the attributes of a digital single lens reflex (dSlr) camera, or looking for a new home. Shopping for a college or university is no different, and those doing the looking expect similar experiences. Long before a student ever walks through the front gate of a campus, they have spent many hours online shopping campuses, cities versus rural locations, an institution's noted majors, and aid packages. In fact, the great digital experience offered by an institution of higher education may be the best chance a school has to attract a student who will be looking at many universities—maybe scores of universities. And that number is rising.

The CMS must offer the controls to create great digital experiences, the tools to create and manage a marketing campaign, and the capability for providing a multilingual, global experience.

Higher education, like other organizations, have progressed a long way in recent decades. The lesson learned? The top marks for a great digital experience in higher education will be earned by simple, yet powerful digital site solutions that no longer need to be built, but simply deployed.

To serve the needs of the education, media, entertainment, and publishing industries, the next-generation CMS must be able to provide the tools that ensure optimal engagement with the public, including easy and powerful content creation tools, as well as tools to easily administer the work flows, work groups, and security of a site. The CMS must deliver the metrics and analytics that indicate digital success. The CMS must offer the controls to create great digital experiences, the tools to create and manage a marketing campaign, and the capability for providing a multilingual, global experience.

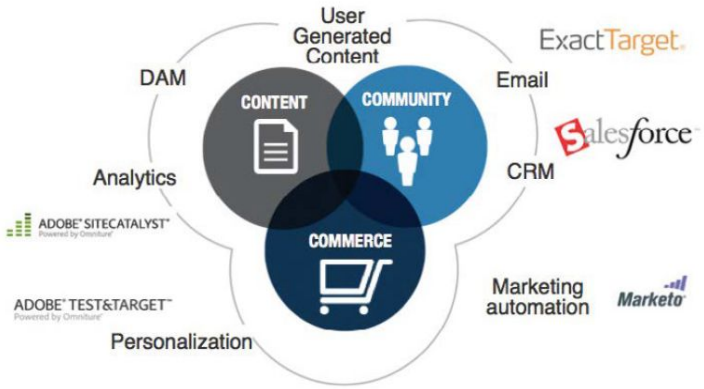
Selecting a CMS Vendor: Monolithic vs. Integrated Experience

Vendors Are Taking Two Approaches

Monolithic Suites: Legacy CMS systems are proprietary and have, for the most part, taken an all-in-one approach. They attempt to assemble all the functionality an organization might need in a single system. In a world defined by constant innovation, though, it is less likely that one system can provide one-stop shopping. In addition, adding new functionality is usually a slow process that requires months, sometimes years, of development. That slow pace of change is a non-starter in a highly competitive marketplace.

ORACLE OpenText IBM Adobe

Integrated Digital Experiences: A CMS built on open-source technology offers "open architecture." This allows the best solution—including recently emerging solutions—to be rapidly and easily integrated into the CMS. This open architecture therefore provides an ideal environment for constant innovation. Adaptation can be made without re-engineering the entire system. Creating a new Drupal module, for example, or revising an existing module, may be all that is required to add that new functionality. This means a turnaround of days or weeks instead of months or years. Integration to new systems is also simple, due to the open architecture of the open-source platform.



Key Considerations for Choosing a New CMS

As an organization begins the process of selecting a new CMS, understanding the important factors in making such a choice can help ensure a successful outcome.

Some of the key factors to be weighed during the process include:

- Will the CMS provide the tools to **constantly innovate** and **adapt** to the rapidly changing digital environment?
- Can the CMS handle large **spikes in traffic**, so that your best day doesn't become your worst day?
- Every organization has its own requirements. What problems are you trying to solve? Articulate **your specific requirements** for a new CMS.
- What are the **licensing requirements** for the software? Is it open source or proprietary? There are some significant differences in costs and resource allocation due to licensing factors.
- Are you planning to host the CMS **on premise** or are you seeking a **cloud-hosted solution**? What are the cost, maintenance/updating, and staffing benefits to each approach?
- Can you work with vendors directly? Can you engage an **implementation partner**?

There Are Many Vendors to Consider

Narrow your list of vendors for consideration by evaluating possible platforms and deployment models. In the case of the platform, consider such factors as the skills of your development staff and the platform that will be the best fit for future development.

The following are among the most common platform choices and their attributes:

- .NET Framework
  - Microsoft-only
  - Mature development environment
- Java
  - Cross-platform
  - Popular among larger enterprises and specific verticals like financial services
- PHP
  - Cross-platform
  - Fastest growing CMS development platform

Deployment can be hosted in the cloud, on-premise, or a hybrid. Some CMS systems are traditional software installed on on-premise servers. Other vendors offer cloud-based solutions so that servers are hosted remotely and are managed by the hosting firm. Some companies, such as Acquia, offer options either for cloud-based computing or for managing on-premise software.

Evaluate Usability, Not Curb Appeal

Narrow your list of vendors for consideration by evaluating possible platforms and deployment models. In the case of the platform, consider such factors as the skills of your development staff and the platform that will be the best fit for future development.

In addition to department heads and key project managers, consider including:

- .NET Framework
- Developers, architects
- Designers
- Marketing team
- Analytics, metrics experts
- Agency partners
- Administrators
- Trainers, documentation staff
- Other key staff within your organization

Consider working with analysts, such as Forrester, Gartner, Digital Clarity Group, and others. They can add perspective to the selection process.

Take the steps of downloading trial installations and evaluating using consistent criteria. Engage your partners in the process as well. Their expertise and knowledge of your business will add further perspective.

Key Requirements Checklist

Content Authoring

- ❑ **Inline Editing**
  Edit content in-place
- ❑ **Structured Content Authoring**
  Forms-based
- ❑ **Drag-and-Drop Page Creation**
  Assemble pages without developers
- ❑ **Media Management**
  Resizing, cropping, transcoding

Workflow Requirements

- ❑ **Approval Process for Publishing**
  Edit content in-place
- ❑ **Version History**
  Quickly compare versions
- ❑ **Audit Trails**
  Capture feedback on changes
- ❑ **Reporting**
  Bottlenecks

Multilingual and Content Reuse

- ❑ **Separation of Content from Presentation**
  Create content once, re-use in multiple locations
  Categorize content using taxonomies
- ❑ **Manage content in multiple languages**
  Manual or automated translation support
  Define relationship between languages

Security and Permissions

- ❑ **Users**
  Authorized CMS users
- ❑ **Groups**
  Collections of users and other groups
- ❑ **Permissions**
  Define access levels to folders and content
- ❑ **Roles**
  Define access privileges to users and groups

Social Media and Collaboration

- ❑ **Blogs**
- ❑ **Networking, Friending, and Following**
- ❑ **Ratings and Reviews**
- ❑ **Collaboration**
- ❑ **Content Moderation**

License and Deployment Models

- ❑ **DEPLOYMENT MODEL**
  On-Premise: Software is deployed on owned servers.
  Cloud: Software is deployed in the cloud.
  Hybrid: Authoring servers are on-premise, delivery servers are in the cloud

- ❑ **LICENSE TYPES**
  Perpetual: You buy the software up-front and pay the vendor a yearly fee for access to upgrades and support.
  Subscription: You rent the software, services, and support typically on an annual basis.
  Open Source: No software license fee. Vendors like Acquia provide support.

Don't Forget About Training

- ❑ **For Developers**
  Learn the fundamental concepts and techniques for developing CMS applications, including page design, APIs, content models, and more.
- ❑ **For Administrators**
  Learn server administration concepts and best practices, from installation and configuration through ongoing health, performance, and availability.
- ❑ **For End Users**
  Teach users the basics of content management including authoring, workflow, and publishing.

Prepare for the Dog and Pony Show

Once you've narrowed the field, it's time for the vendors to make their case to your team. Make sure that you guide the process so that you are able to judge functionality and usability. Ask the vendor to minimize the "About Us" pitch. By this point in the process, you will be familiar with the vendor.

Allocate enough time so that vendor can demonstrate the scenarios and requirements that you have specified in your request for proposal. This typically will take 60 to 90 minutes. Ask the vendor to bring the right resources to the demonstration. The sales engineer will be able to answer your questions.

Finally, schedule the audience based on the subject matter of the particular demonstration. Developers and designers, for example, probably will not want to be included in the same sessions as business users.

You are the customer. Make sure your questions are answered and the vendor has given you the information you and your staff require to make a sound decision.

LET'S TALK