

March 1, 2006

Open to Open Source

Open source software has found a permanent home on some college campuses. But according to a study released today by the Alliance for Higher Education Competitiveness, open source products, which enable programmers to modify code and customize programs, have yet to reach the masses of academe.

The survey, based on responses from more than 200 officials who are responsible for software selection at a range of higher education institutions, found that two-thirds of chief information officers said they have “considered or are actively considering” using open source products, while about a quarter of institutions are implementing higher education-specific open source software.

Kenneth Green, founding director of the Campus Computing Project, which studies the role of technology in higher education, calls the mindset regarding open source “affirmative ambivalence.” Chief information officers are confident the software will be a part of the future but are still taking a wait-and-see approach, Green said.

Rob Abel, founder of the Alliance for Higher Education Competitiveness and chief executive of IMS Global Learning Consortium, shared Green’s view. “There’s a lot of considering, but commitment isn’t very high,” he said.

Both spoke of open source software as if it is a promising prospect working its way through the minor leagues. “It’s not quite ready for prime time,” each said.

In other words, there are no signs that a large shift from commercial, non-open source to open source software is occurring.

What kind of software is behind an institution’s Web portal or course management or student information systems may be primarily of interest to members of college information technology departments, though a philosophical bent among many tech-savvy faculty members favors the sort of “sharing” that open source is designed to encourage.

But interest remains high among technology officials and commercial vendors in gauging the extent of the reach of open source into academe, and the new survey, titled “Best Practices in Open Source in Higher Education Study — The State of Open Source

Software,” is designed to shed light on that. (Only an executive summary of the report is available on the alliance’s Web site.)

Years ago, when Abel founded the alliance, open source software was on the periphery, he said. A combination of commercial open source initiatives and grant-funded initiatives specific to higher education has allowed for a greater investment in the products, and he and others said that the merger of Blackboard and WebCT, two leading commercial providers of course management software, has propelled interest in creating alternatives, given concerns about the potential effects of consolidation in the industry. The merger became official Tuesday.

According to the study, 57 percent of all institutions are using some form of open source infrastructure software (including operating systems and databases). Thirty-four percent of institutions have implemented open source application software (including course management systems and portals).

Still, about a one-third of the market has yet to give “serious consideration” to open source software, the study shows, although with few rejecting it outright. The majority of those institutions that have not considered the software had operating budgets under \$100 million. The survey respondents included a roughly equal mix of public and private four-year institutions (35 percent each) and community colleges (28 percent).

“People are looking for alternatives,” Abel said. “Higher education officials are concerned about whether commercial providers can meet their ‘unique needs.’ “

Some of those needs include having programs such as course management that are easy to navigate and fix when problems occur. Abel said that while there is a perception that open source provides greater functionality, the survey shows that about a third of respondents said they were pleased with how the commercial products functioned.

Many respondents to the survey cited the ability to customize software and the lower total ownership costs as their reasons for switching to open source software. Green said that because some of the software is being developed on campuses, there is a notion that those products will pay closer attention to the needs of universities.

Sakai, a course management system originally developed using grant money from the Andrew W. Mellon Foundation, is being used at a variety of institutions, including Denison University. Scott Siddall, assistant provost and director of institutional technology there, said the college is active in using open source software, including uPortal, a free portal being used by a range of higher education institutions.

Siddall said open source software gives the university “control and flexibility to implement how we want, when we want.” He said some of the money Denison would have paid in licensing fees goes back into training faculty in software applications.

Added Kathy Christoph, director of academic technology in the division of information technology at the University of Wisconsin at Madison: “We have access to the code and when we discover problems, we can change them.”

But Christoph also outlined the inherent problems with the non-commercial, open source software: “There isn’t anyone to go to and say, do it for us.” Costs shift away from acquiring the software and toward hiring more IT staff, she said.

Lack of vendor support is one of the largest hurdles limiting the adoption of open source in higher education, Abel said. “The biggest thing is it takes more physical labor to implement open source because it isn’t pre-packaged,” Abel said. “You have to have software developers that can make this stuff work.”

“Most in the survey said they would prefer to work with open source through a commercial vendor,” Abel added.

Richard Katz, vice president of Educause, said the findings on open source adoption reflect the traditional IT cycle. “Any self-respecting IT leader should exercise prudence when it comes to the use of new technology,” he said.

While some continue to frame the software discussion as open source vs. non-open source, Art Pasquinelli of Sun Microsystems, which helped sponsor the survey, said the real issue is how colleges are going to integrate the two in the future.

“Colleges are taking ownership of the software,” said Pasquinelli, who is director of market development with the education group at Sun. “It’s always going to be a mix and match.”

Both Pasquinelli and John Blakley, chief executive of Unicon, a business that supports and provides services for open-source products (and another of the survey’s sponsors), said the survey shows that colleges will continue to seek out technologies that can combine open source and non-open source software.

— Elia Powers

COMMENTS

open source software

This article properly describes my current approach to OSS. I’m quite interested in the advantages that OSS can provide, but these have to be carefully balanced against the current situation and attitude of one’s specific campus environment. Similar to that seen in vendor-supplied software, the hype surrounding OSS has motivated some campus decision makers to react too quickly. This is often accelerated when the institution is faced with serious budget restrictions. Setting up a pilot OSS environment is one thing, but making the commitment to an OSS production environment deserves a whole lot more preparation and commitment.

John E. Bucher, Chief Technology Officer at Oberlin College, at 9:45 am EST on March 1, 2006

report bias?

Anyone else concerned about a report on open source which can only be read by paying for membership with the IMS Global Learning Consortium, an organization with a contributing membership made up of mostly of key commercial software vendors. Who is funding this report? More here.

Charlie Lowe, Department of English at Purdue University, at 1:40 pm EST on March 1, 2006

I was asked for the “Microsoft perspective,” so here goes:

I think a popular perception is that Microsoft is somehow the natural “enemy” of Open Source software. But the reality is that Microsoft has benefited from open source software in the past, has participated in OSS projects, and believes that OSS will continue to have an important role in the software ecosystem. Both commercial software and OSS offer specific advantages, and several development models can and should coexist in healthy competition. Through the Shared Source Initiative, Microsoft seeks to provide the most beneficial aspects of both commercial and open source models.

Open Source is also a somewhat fuzzy term. There are people who are pretty extreme in their interpretation of what qualifies as Open (i.e. GPL only). Other people think that if generally people can use and share things that is also Open. It seems likely this division of opinion will continue, especially as some zealous people are quite opinionated.

Microsoft products compete with many types of competitors, some of them Open Source and others not. What we’ve found is that any customer considers many aspects of the products they choose to use. For a small segment of people, price determines everything. But most customers are looking for value, meaning that the product efficiently solves problems for them. Many institutional customers also look for innovation, connection with the provider (feedback loop), long term viability of the provider, service warranties, etc. This is really the same as any other decision to use a product. There are plenty of reasons why people don’t buy the cheapest car on the market, or the cheapest house, or the cheapest MP3 player.

Open source software fills a niche in the marketplace and it will be around for a long time to come. So will commercial software.

Chris Pratley, Group Program Manager at Microsoft, at 2:32 pm EST on March 1, 2006

Not a lot of open source end user apps in schools

That’s my impression, at least. I do find it interesting that of the groups I do OpenOffice.org training for, few are schools. I sell training materials to schools but my clients are generally city governments, nonprofits, and small businesses. I believe it’s different in the UK and Australia and I hope that the educational emphasis on open

source will spread here. There's a site here on OpenOffice.org educational implementation sites.

http://wiki.services.openoffice.org/wiki/Major_OpenOffice.org_Deployments

Education is so important. Anytime we can take money from a program you have to pay for, and spend it on better teacher salaries and smaller classrooms, etc., I think we should give it a lot of consideration.

Solveig Haugland, Author and instructor at GetOpenOffice.org Training and Consulting, at 4:05 pm EST on March 1, 2006

Schools

There is not a lot of OpenOffice.org training going on in schools in the UK but then again there is not a lot of MS Office training under that name. Its more likely to be called ECDL or CLAIT. In fact enlightened educators teach word processing, not Word or Writer. The real untapped educational resource in Open Source for schools is to take part in the community and learn through participation. Some schools are beginning to do this with resources such as Wikipedia and no doubt as time goes on more will contribute to other FLOSS projects, learning and contributing to the community in a variety of ways.

Ian Lynch, The Learning Machine, at 4:55 pm EST on March 1, 2006

re: Report Bias?

Here's the link

<http://kairosnews.org/inside-higher-ed-how-open>

Charlie Lowe, at 8:30 pm EST on March 1, 2006

Response to Concerns About Availability of Report

I would love to make research such as this available to everyone. In fact, when I first formed A-HEC I tried the model of having all our work open and free in exchange for donations. I personally donated over a year of my labor to the A-HEC work in order to get it going.

The reality has been that individuals, institutions, or corporate sponsors do not fund open research. Therefore we have come up with a balance where we provide some results open to the public and full reports reserved for those that take the time to participate or contribute the money to sponsor the projects. Those who have done so or continue to do so will receive the reports because that is the only way we can fund this work. We do all our research with this approach, not just the open source work.

As far as the 'bias issue' is concerned regarding the IMS Global Learning Consortium let me clarify that the contributing members of IMS include a dozen higher education institutions, many who are leaders in open source, such as Michigan, Stanford, MIT,

Indiana, and Open University. The three companies that sponsored the report, Sun Microsystems, Unicon, and Sungard Higher Ed (formerly SCT) are leaders in supporting the open source movement in higher education. They did not have any editorial input to the report.

I encourage those that would like to see more research like this to support it. Not just assume it 'happens' and they can reap the rewards of getting it for free. That's why we have links to the modes of support in order to receive the reports.

Rob Abel, Founder at A-HEC, at 10:10 pm EST on March 1, 2006

“do it for us”?

I really dislike this argument that commercial software gives you some kind of recourse when something needs to be fixed or a feature added. Monopolistic companies to whom we are obligated to a huge contract / licensing fee have little incentive to make the fixes.

Our institution uses a central information system that happens to provide a deplorable WWW front end for applications. The problems range from fundamental, logical design flaws to more subtle HCI issues. Clearly, the decision-makers did not evaluate the product before purchasing it, but once you've invested hundreds of person-years of effort into putting HR, Registrar, etc. onto a single [closed] system, do you really have an option?

The commercial v. open-source debate seems difficult to resolve in the absence of knowing the company providing the commercial software, and its track record.

Open Source Fan, faculty member, at 9:15 am EST on March 2, 2006

Red Hat checking in...

...an inviting a deluge of comment to this fascinating thread. :)

What are the realistic barriers to adoption of open source Inside Higher Ed, from your perspective?

If you've got an opinion and you want to voice it to someone who might be able to have an impact... well, now's your chance. Drop me a line at gdk at redhat[nospamplease]dot com.

Greg DeKoenigsberg, Community Development Manager at Red Hat, at 11:00 am EST on March 2, 2006

Not ready for primetime?

“Both spoke of open source software as if it is a promising prospect working its way through the minor leagues. “It's not quite ready for prime time,” each said.”

Not ready for prime time? Given that OSS is being deployed frequently and broadly in production environments (not just behind-the-scenes) by such enterprises as (for a quick example): Google, the US Census Bureau, Amazon.com, and more. 70% of all websites use Apache, an OSS package.

Interestingly, the University of Michigan is a contributor to A-HEC and a founding member of the Sakai Project (which was mentioned in the article). According to sakaiproject.org, there are 35,000 users at UMich using SAKAI, which has an OS license. It would have been interesting to discuss this with a member of the Michigan IT staff. Would they really agree that it is not “ready for prime time”?

OSS Researcher, at 11:55 am EST on March 2, 2006

Not ready?

I can assure you that OSS (via GPL) is ready for prime time. I use it extensively at work and home. My home network has been running it for years now. It is unbelievably easy to deploy and use now. There are well maintained distributions available from many sources. Commercial support is widely available also— if you want to take that route.

My children use it (9, 15, 19 yrs old). My wife uses it, who previously had never used a computer before.

The resistance is more in the minds of the decision makers who do not understand it than in the technology itself. I'm sure there are significant politics involved as well because someone might have to admit the present proprietary way may not be the best way.

OSS systems are far cheaper to acquire, use, distribute, and support than are proprietary software systems. I know this through experience because I support both.

Many folks look for convenient reasons not to use it—such as MS “Get the Facts”. One “easy” reason may be that the institution can just pass proprietary costs down to the users, as is the case with higher education (i.e. you must use MS Office, and Internet Explorer within our university).

Think Open, think freedom, and stop throwing good money at a poor proprietary investment. It's time to break those proprietary chains and move on. When you get there, your pocketbook, and your customers, will continually thank you.

Ken Zahorec, BS EE at University of Akron, at 1:20 pm EST on March 2, 2006

This article is somewhat misleading...

This article is somewhat misleading in that it uses the broader term “open-source” to refer quite specifically to desktop productivity software. In the canonical sense, open-source software is a staple of higher education (even in the US; where schools are frequently paid to endorse proprietary applications).

Open-source software found its genesis in academia long before the notion of selling proprietary software brought us to the horrible state we find ourselves in today — unservicable black-boxes whose interoperability is stymied by profit concerns and political interests. Today, a predominance of science and engineering research and development is done using open-source software, as it has for the past 30 years.

As a computational biologist, nearly all the software I use is either open-source software, software that was originally open-source until maintenance was turned over to a commercial entity, or some product that is mostly open-source with a value-added veneer. The same thing is seen throughout technical computing. And it's great in that domain because best-practices and common standards that promote data exchange and validation wouldn't exist without it.

As far as desktop applications are concerned — there is more validity there. While open-source operating systems typically have more to offer than their commercial competitors in functionality and often ease-of-use, it's not always so, and they certainly don't have the user familiarity. Further, many higher-level IT managers simply don't have sufficient experience with the open-source domain to have an informed opinion on the subject.

I'd also add the perception that open-source software is not "ready for prime-time" is largely a US one. Much of the rest of the world has decided it to be so and moved accordingly. In this regard, we are playing catch-up the same way we are doing so with mobile-phone technology and popular high-speed Internet deployment.

James McIninch, Senior Scientist at Biogen Idec, at 3:00 pm EST on March 2, 2006