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The case for open source software

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You use it more often than you are aware, and you can even use it to get a job

The next time you turn on a computer at work, ask yourself this question: Are you using any open source software? If you say “no”, you are likely to be proven wrong.

“I would talk to companies, and they’d tell me, ‘We don’t use open source software’,” recalls **Tony Wasserman**, Professor of Software Management Practice at Carnegie Mellon University. “My answer to them was always: ‘You wanna bet?’”

Wasserman lists a few examples of open source software that people often use without knowing them to be so: Mozilla’s Firefox web browser; MySQL and Hadoop for data management; Drupal and Wordpress for content management. In fact, if a company has any Internet presence at all, the website hosting service “is almost certainly running on a Linux platform”.

Why use proprietary software?

Wasserman made it clear that he was not advocating anyone to move away from a proprietary solution that they are successfully using, especially if they have made a significant investment in customisation or training; the cost of switching is very high.

However, if an enterprise does not have an HR system – for example – then it makes sense to consider open source options such as OrangeHRM instead of the proprietary Workday. For business software for Point-of-Sale (POS) transactions or warehouse management, there is OpenERP if you do not want to go with Oracle or SAP. The important point, Wasserman stresses, is to include the open source options along with proprietary ones in product evaluations, considering functionality, support, and costs among the key factors.

“When you start thinking about enterprises and the concerns that they have about the reliability and robustness of the software they use, as well as the stability of the company, they want to pay for support,” Wasserman explains to Perspectives@SMU. “They want to know that if there’s a problem, somebody is going to take care of it.”

However, one can often pay to get technical support from open source software companies too. In fact, even if you pay an open source vendor for support services, the overall Total Cost of Ownership (TCO) can be as much as 60 percent less for the open source product vis-à-vis the proprietary one. Most of the savings come from not having to pay upfront license costs, but you do have to take care of downloading, installing, and updating the software.

Red Hat, the leader in open source solutions, recorded over US\$1.5 billion in revenue for fiscal year 2014. Other open source software companies also provide such support, which includes discussion forums. “They carry many of the characteristics of the proprietary brands,” Wasserman says.

For some people, the notion of paying for support on open source software, and especially for the software itself, may be awkward. After all, many people think of open source software as being free of cost. However, as the non-profit body Open Source Initiative (OSI) explains on its website: “All Open Source software can be used for commercial purpose; the Open Source Definition guarantees this. You can even sell Open Source software.”

“There are a variety of ways a company can make money from open source software,” says Wasserman, who is a director at the OSI. “One way is to make the software available under two different licences although it’s exactly the same source code. If it’s for personal use or educational use, and you’re not distributing it to anybody, you can use the open source licence forever. You can download a new version, and you can do whatever you want to do.”

“Using that approach, if you were to take that software, make it part of a commercial product, and then distribute the product to customers, then you have to purchase a commercial licence.” Wasserman cites the example of a MySQL commercial licence, which allows companies to use MySQL’s database software in their own commercial products.

Accessing the source code

A major consideration in whether to go with open source or proprietary solutions lies in software security. Following the NSA surveillance scandal that has made a fugitive of Edward Snowden, companies in possession of sensitive information are thinking twice about running proprietary software whose source code is inaccessible to them.

“If I am in some countries,” Wasserman says, “and I’m worried about the United States, then I might be concerned about buying or using software produced by an American company run on American servers.”

He adds, “I don’t think it [spying done via American software] happens, but if the source code is open and you can inspect it, it gives you a better feeling about that.”

Open source software also makes it possible for IT students to learn the ropes before becoming full-fledged professionals. Wasserman gives the example of Google Summer of Code, where students are offered a stipend to write code for open source projects. Accepted students were paid US\$5,000 in last year’s Google Summer of Code, but the money is secondary in the bigger scheme of things.

“Google Summer of Code is a good way for people to get experience on a real project,” says Wasserman. “One of the great things about open source is that you can jump right into it. You can pick a project, and these projects would be happy to have you as a volunteer. As graduates present their resumes to employers, they’re not only showing their previous work experience and the courses that they took, but they’re showing the projects that they did while they were in school. They’re showing the online courses that they took and got certificates for, and their participation in open source projects.”

So as these IT students move on to bigger and better things, and perhaps one day occupy a senior management role, how should they decide whether or not their office should be run on open source software?

“Ask the question: ‘Am I getting my money’s worth from this proprietary software? Or are there alternatives out there that are going to do the job at least as well at lower cost?’ There’s a good reason why Apache and NginX as open source HTTP servers run roughly two-thirds of the world’s websites.”

Anthony I. (Tony) Wasserman was the featured speaker at the Singapore Management University Institute of Innovation & Entrepreneurship event, “Building a Business on Free and Open Source Software” on March 27, 2014.