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OSS Watch
Supporting open source in education and research

http://www.oss-watch.ac.uk

IN THIS ISSUE:

Online newsletter available at
▶ http://www.oss-watch.ac.uk/newsletters/july2010.pdf

We are bringing you this newsletter post TransferSummit and we think it's a good opportunity to reflect on what happened over the two days of the conference. To this end we bring you excerpts from two blogs written at the TransferSummit, one from the innovation track and one that covers both the collaboration and development tracks. We also bring you an article written by Rowan Wilson that disentangles the ideas of invention, innovation and open innovation and explores how open innovation intersects with software development.

We sincerely hope that everybody who came to the conference took something valuable away with them, whether it's about innovation, collaboration or development of open source software. As always if you want to find out more then please do get in touch.

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News from OSS Watch

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Accessibility Toolbar featured in Lifehacker

The JISC TechDis Accessibility Toolbar has made the front page of Lifehacker, the award-winning daily blog that helps people work more efficiently. The toolbar was developed as an open source project by the accessibility group of the University of Southampton's School of Electronics and Computer Science in response to a commission from JISC TechDis and with open development guidance from OSS Watch. The BSD-licensed, browser-independent web-accessibility tool allows users to make text bigger, change text fonts and magnify pages, among other things.

▶ http://lifehacker.com/5571656/jisc-techdis-toolbar-adds-convenient-accessibility-tools-to-any-browser

Skobbler brings open source maps to UK iPhones

The skobbler navigation application for iPhone is now available in the UK and Ireland. Skobbler uses data from the OpenStreetMap Project (OSM) to display maps and directions on a user's device and supports the iPhone 3G and 3GS; it's likely that the iPhone 4 will also be supported when it's released in the UK.

▶ http://www.h-online.com/open/news/item/Skobbler-brings-open-source-maps-to-UK-iPhones-1022113.html

Sakai Foundation names Ian Dolphin as Executive Director

The Sakai Foundation has announced that Ian Dolphin will join the organisation as Executive Director. Mr Dolphin has led projects to improve post-secondary education in the UK and played a leading role in collaboration with Australia, New Zealand and the United States. He joins the Sakai Foundation at a time when Sakai is experiencing unprecedented growth in adoption, investment and new product development.

▶ http://www.prweb.com/releases/2010/06/prweb4132154.htm

OLPC XO laptop now runs GNOME

Sugar Labs, the GNOME Free Desktop Project, and One Laptop per Child (OLPC) have announced an update to the software offered on the OLPC XO-1.5. The 1.5 million children already using Sugar on the original XO-1 can also benefit from the update, since the software has been backported.

▶ http://www.prnewswire.com/news-releases/sugar-learning-platform-and-gnome-desktop-now-shipping-on-the-one-laptop-per-child-xo-15-will-run-on-new-xo-hs-96289528.html

EU warns against proprietary software

EU Internet Commissioner Neelie Kroes has warned that governments can accidentally lock themselves into one company's software for decades by setting it as a standard for their technology systems. She wants to draw up detailed guidelines for European governments to encourage them to acquire other software, especially programs based on open source code that is freely shared between developers.

▶ http://www.forbes.com/feeds/ap/2010/06/10/technology-technology-hardware-amp-equipment-eu-eu-open-software_7676436.html

Google tweaks VP8 licence to calm open source critics

Google has tweaked the licence on its VP8 video codec to head off concerns over its open source status. The web giant has made the codec available in the latest developer build of its Chrome web browser, which forms a key part of the WebM multimedia platform.

▶ http://www.itpro.co.uk/624052/google-tweaks-vp8-licence-to-calm-open-source-critics

Google releases CloudCourse as open source

Google has released its new internal learning platform, CloudCourse, under an open source licence. Built entirely on App Engine, CloudCourse allows anyone to create and track learning activities; it also offers calendaring, waitlist management and approval features.

▶ http://google-opensource.blogspot.com/2010/05/cloudcourse-enterprise-application-in.html

New government speaks on open source

The coalition's detailed plan for government includes Conservative plans to split large ICT contracts into smaller components. The deal includes several elements of the Conservative IT manifesto, with pledges on widening access to procurement and on open source software.

▶ http://www.zdnet.co.uk/news/regulation/2010/05/21/coalition-govt-plan-outlines-ict-contract-split-40089004/

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JISC

Open source and open innovation

'Open innovation' is a term coined by Professor of Business Henry Chesbrough in his 2003 book *Open Innovation: The New Imperative for Creating and Profiting from Technology*. In the years since its publication, Chesbrough's ideas on how technology should be managed and exploited have become extremely influential. Over the same period, the public profile of free and open source software (FOSS) has risen. This document explores open innovation and examines the areas of agreement and difference between the notions of 'open innovation' and 'free and open source software'.

1. So what is open innovation?

Many people confuse innovation with invention. However, innovation is not invention. Invention focuses on the creation of something new without necessarily realising economic benefit. Innovation, on the other hand, is the application of inventions to generate economic benefit. You can't have innovation without invention.

Open innovation is a specific form of innovation. Simply put, open innovation is a practice involving:

- seeking useful inventions and innovative technologies outside your organisation
- making your own internally developed inventions and innovative technologies as widely available to others as possible
- working collaboratively with external partners wherever it is advantageous

Underlying Chesbrough's promotion of the sharing of inventions across organisational boundaries is the conviction that - in an increasingly complex technological world - no individual organisation can command a monopoly of top talent. Given this, previous 'vertical' models of technological development (in which a single organisation invents and develops every aspect of its products) are no longer optimal, or in some cases even possible. Proponents of open innovation argue that organisations must avoid what has become known as the 'not invented here' phenomenon, in which external technologies are treated as inferior simply because they come from outside.

2. Open innovation and universities

It is interesting to note that - in comparison to more commercial entities - universities have been eager 'open innovators' for a long time. The traditional technological exploitation vehicle employed by universities is the spin-out company. A spin-out company will generally be a separate legal entity created to own and exploit an intellectual property resource. The university that creates the spin-out will retain a certain degree of control over the company and a stake in its fortunes. However, the spin-out's separate identity makes raising investment capital easier and allows the university to be insulated from risks of legal action and bankruptcy. Often university spin-outs will be primarily engaged in technology licensing, rather than the creation and marketing of specific products; they work with third-party companies to provide specific solutions that feed into the creation of products by that third party. Frequently, the main asset of a spin-out company will be a patent or suite of patents covering

> **FOSS is an example of open innovation in software**

processes in the physical or life sciences.

So because universities tend to spawn separate legal entities to contain and exploit their technological innovations - essentially because technological exploitation is not their primary expertise - they can be seen as trailblazers in the territory of open innovation. In turn, as commercial organisations become more open to externally developed innovation, the market for university-spawned innovation becomes wider.

3. How does that relate to FOSS?

On the face of it, Chesbrough's appeal to 'open' access to technological innovation seems to have a lot in common with the principles behind free and open source software. Rough analogies can be drawn between Chesbrough's criticisms of closed, vertical organisations and Eric Raymond's criticisms of 'cathedrals' in his seminal essay 'The Cathedral and the Bazaar'. Both tend to favour internal expertise over external, and both are potentially losing the advantages that access to a wider market of ideas could bring. Chesbrough also heavily promotes the collaboration between internal and external technologists as a mutually beneficial measure. This could be compared to the open development collaborative methodology that so closely accompanies the FOSS ideology.

It's not quite as simple as that, however. Chesbrough's examples of exchanges of technology are largely based around patentable processes and their paid licensing to selected external organisations. This is only natural, as patents are the form of intellectual property best suited to protecting all embodiments of an innovative technological process, and selective paid licensing is a traditional mode of patent exploitation. However, FOSS relies upon universally granted copyright licences to facilitate its model, with either implicit or explicit universal patent grants accompanying them.

4. Conclusion

So exactly how closely related are open innovation and FOSS? Put simply, FOSS is *an example of open innovation in software*. The universal availability of source code and accompanying embodied patents provides a vast resource for organisations looking to collaborate and share expertise. FOSS provides an environment in which competing technology firms can nevertheless collaborate on certain levels of software functionality; a prime example of this would be the numerous and competing large technology players who contribute code to the Linux kernel. However, there are other software exploitation strategies that are not based on FOSS but are nevertheless easy to identify as open innovation. The practice of obtaining and licensing out software patents is one such strategy. This strategy is anything but open according to the definition of openness that goes with the FOSS ideology, but it fits neatly into the definition of openness we can derive from Chesbrough's writings on open innovation. The lesson is, perhaps, that commentators on openness are not always talking about the same thing. Ideas of openness remain open to interpretation.

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Guest Post

TransferSummit – Industry and the Open Source Community

Published by Alastair Harper on July 5, 2010

Buildings that last are always open

How is the open source model like Oxford's Sheldonian Theatre? Ross Gardler, in his introduction to the TransferSummit conference this June, put forth this theory: the Sheldonian, Christopher Wren's greatest early work, required a huge range of transferred expertise and what was then the latest technology in its construction. A swath of different individuals' skills were employed to produce a cutting-edge building that, finished in 1668, is still used today. The end result was not only a magnificent building but also new construction and architectural techniques shared with the craftsmen brought in. Ross's point is that the University of Oxford looked outwards to leading figures in construction and architecture to fulfil their needs – and, with open source, this relationship between academic and business interest continues to flourish today.

A shared future

Traditionally, universities have been seen as research institutions not unduly concerned with value. But Ross hoped that at TransferSummit, those working in academic institutions and non-profit communities, and those working in industry, could show, over the course of two days, how both can work together to their mutual benefit.

These are exciting times to be involved with open source. As many mentioned over the two days of TS, the average person encounters Linux ten times a day without even knowing it, all thanks to a quiet revolution in industrial attitudes to the open source community. Many talks recounted the difficult journeys taken by companies over the last ten years, learning how and why to use open source software to deliver the most innovative products to their consumers. If companies are to produce their own Sheldonians they must look to open source.

Why industry is becoming more open

Matthew Langham spoke of his own experience of combining two very different worlds – the corporate and the open source. He remembers back in 2000 the difficulties he had as a software developer in getting his boss to embrace a new, apparently insane business plan: 'We give away our code for free?' But Matthew, who now runs a company connecting the corporate and open source worlds, explained the benefits of going open source: the strength the company would derive from allowing other people to improve its code, the advances made in their software that they could never have come up with alone, and, ultimately, how much more use their software would enjoy by being offered in this way. Open source provided their company with hugely increased exposure, and allowed them to make a good profit by offering support for their freely available products. Having proved the commercial viability of going open source, Matthew started suggesting these benefits to other companies, inspiring them to have a go too. He has found it easy to persuade them to try it out, but perhaps one of the biggest challenges has been getting them to admit that they do so. Phone companies, big banks and other organisations all embraced open source at a developmental level but were wary of admitting it to their employers and certainly of being evangelical about its benefits.

> **These are exciting times to be involved with open source**

Of course, this is set to change. Matthias Stuermer's talk investigated the ways in which Nokia has been playing with open source and Linux for the last ten years and how since 2005, they have been openly working with the open source community. One benefit of that relationship came about when the Nokia 770 was hacked to allow the use of flash cards as RAM – something Nokia's own developers thought couldn't work. They were then able to adapt the design to allow the feature.

An army of R&D

This ability to innovate as a community is also something that Phil Andrews spoke about. If SourceForge were to pay, as R&D, the 50,000 people they have involved in their community, the annual wages bill would come to £4.5 billion. He also pointed out that the number of coding errors generated within an open source community is much smaller than those produced by a closed company.

Guest Post

Transfer Summit – Innovation Track

Published by Sam Jordison on July 2, 2010

I've just returned home after a fascinating two days writing the live blog for the Innovation Track, one of three tracks at the TransferSummit, a conference sponsored and organised by OSS Watch. This track was billed as a 'top-level immersion into the world of open source'. It delivered comprehensively.

Far too much ground was covered to hope to include every detail in a piece like this one. Hopefully, the live blog should demonstrate how informative the discussions were. You can also get a good feel for the breadth of the talks if you click through the links on the TransferSummit programme to look at the speakers' slides. Here I'll just aim to provide a few general impressions.

The first thing to note is how pleasant the whole event was. Even though I was working hard to keep up with the blog, I enjoyed myself. True, when I had to pull down a blind to stop the strong sun shining on the screen of my laptop, it gave me a slightly sad feeling – but being at the conference still beat being in the office. It was certainly far more interesting than the average day's work. Indeed, bathed in that sunshine, in the beautiful Victorian Gothic enclosures of Keble College, there was a feeling of respite from the problems of the world.

That's not to say that delegates didn't have such troubles in mind, however. The budget cuts faced by projects across the education, public and commercial sectors were clearly causing serious concern. Even so, the overall atmosphere was optimistic. There was a a definite sense that progress was being made in the arguments for open innovation – and indeed that in a time of financial hardship that case becomes even stronger.

As Steven Pemberton said in his keynote speech, Open Source Is Not Enough!, 'we are through the first stage' in getting open innovation technology accepted and now the main task is to make it better.

Of course, there are still difficulties and complexities relating to the use of open innovation. Martin Michlmayr in his talk on The State Of Open Source Licensing and How To Improve It and Mark Taylor in his talk on FOSS Business Models ably demonstrated the tangled wood of licences and legal complexity faced by anyone hoping to launch an open source project – as well as providing a good route through.

It should also be noted that delegates again and again returned to the point that although open innovation may reduce some costs to close to zero, it shouldn't be seen as a free for all. Andrew Savory, the open source manager for Limo Foundation, stressed in his talk about the

Economics Of Innovation In Mobile Technologies, that open source is not an 'all you can eat buffet'. It works best when the companies that use it give something back. It's then that it does offer real cost savings, as well as access to reservoirs of talent that couldn't otherwise be tapped, and an economy of scale begins to build up.

On that note, Steven Pemberton gave the famous example of wikipedia compared to the hugely expensive Encyclopaedia Britannica of old and how 'little things' (such as the many individual wiki contributions) can join together 'to make a big thing better and better'.

The savings that open source software (OSS) can deliver in all sectors were also widely referred to, but one of the most striking examples of its benefits came from the fiercely commercial mobile technology sector. Andrew Savory pointed to the smartphone market, where consumers are demanding ever more features for ever less money, meaning that we have now reached a point where companies are having to invest more than they get back from their technology. So those companies have now started to look more seriously at open source software. They have discovered that it brings not only reduced costs to the acquisition of software, but also reduced costs of access to innovation and - crucially – reduced costs of software ownership (since there is a greatly reduced maintenance burden for true OSS). So it is that HTC has leapfrogged the competition thanks to its use of open innovation.

Clearly there is going to have to be a big cultural shift among companies who are generally secretive, and who are unused to the meritocracy that exists within OSS development, but evidence that OSS is the way forward is beginning to stack up. Andrew also highlighted the Mobile Open Source Economic Analysis white paper, showing that it's even cheaper for companies to merge early and contribute early to OSS development streams – rather than 'forking' off and trying to keep their own innovations with regard to the software to themselves for as long as possible.

▸ Blog continues at http://osswatch.jiscinvolve.org/wp/2010/07/02/transfer-summit-innovation-track/

Events

July
16

MaharaUK 10 conference, ULCC, 16 July 2010

This conference marks the second annual gathering of practitioners interested in e-Portfolios. University of London Computer Centre (ULCC), the first UK Mahara partner and host of this year's successful MoodleMoot UK, are hosting this event at Westminster Kingsway College King's Cross campus.

▸ http://www.maharauk.org/

July
19-22

EuroPython 2010, Birmingham, 19-22 July 2010

This year's European Python conference, EuroPython, will take place in Birmingham on 19-22 July 2010. The event is for all members of the Python community from users to developers. As well as the formal conference there will be an opportunity to attend tutorials on the two preceding days (17-18) and sprints on the following two days (23-24).

▸ http://www.europython.eu/

Aug
10-12

LinuxCon, Boston, USA, 10-12 August 2010

LinuxCon, the Linux Foundation's annual technical conference, will take place in Boston on 10-12 August 2010. LinuxCon aims to bring together the best and brightest that the Linux community has to offer, including core developers, administrators, end users, business executives and operations experts. The event is co-located with a variety of mini-summits taking place on 9 August 2010 which may well swing the balance for those deciding whether to travel to North America from the UK.

▸ http://events.linuxfoundation.org/events/linuxcon

Frequently Asked Questions

Q How do I customise open source in a maintainable way?

A While having access to the source code is one of the key benefits of open source developers can run into difficulties when making changes. Especially if the full implications of those changes are not carefully considered. Typically, extensive local changes can lead to expensive merging operations when upgrading to a new project release or installing new modules that are incompatible with local customisations.

One way to avoid this expense is to work with the software architecture and restrict changes to a 'plug-in'. This can be managed as a separate project with few dependencies on the core code. Such plug-in code is less often effected by project changes. An even more effective approach is to work with the project community to adopt the changes into the core project. The changes are then maintained by the project and will be automatically included in the next release. The extra effort involved is often outweighed by the reduced maintenance costs, or by the improved reputation of developers and institution as a result making contributions.

Find answers to your questions at: http://www.oss-watch.ac.uk/about/faq.xml