# Issue 4/2009 November

# Supporting open source in education and research

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

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Online newsletter available at http://www.oss-watch.ac.uk/ newsletters/november2009.pdf Welcome once again to our monthly newsletter. November sees us continue our focus on community through an interview with Jono Bacon, the community manager for Ubuntu and author of a new book *The Art of Community*. We can often be heard encouraging others to engage with their communities, and are therefore delighted to bring you a new case study, contributed by our own community, on ATutor, an open source learning environment. We also want to tell you about two workshops that we are running in parallel on 7 December 2009, one focussing on community, the other on open innovation. Do come along, we'd love to see you there!

Elena Blanco, Content Editor, OSS Watch > info@oss-watch.ac.uk

# **News from OSS Watch**

# US defence department issue new open source procurement guidelines

According to guidelines issued by the US Defense Department, open-source software meets internal purchasing requirements for 'commercial computer software' and as such gets statutory preference in purchasing decisions, just like software from Oracle, Microsoft or others.

http://www.defenselink.mil/cio-nii/sites/oss/Open\_Source\_ Software\_%280SS%29\_FAQ.htm

# Free and open source software business and sustainability models

At OSS Watch's one-day workshop looking at free and open source software business and sustainability models Rowan Wilson gave a presentation focusing on the legal aspects of FOSS. His presentation centred around such issues as enforcement, risks and patents and cited a number of significant legal cases of recent years. He also looked at ways in which FOSS projects can successfully be exploited and sustained. This article summarises that presentation.

http://www.oss-watch.ac.uk/resources/businessandsustainability.xml

#### Jetpack for Learning Design Challenge

As part of the Jetpack for Learning Design Challenge, sponsored by the Mozilla Foundation, you are invited to submit innovative ideas for Firefox add-ons that could help turn the open Web into a rich learning environment. Design Challenges are intended to encourage innovation and experimentation in user interface design for the Web and provoke thought, facilitate discussion and inspire future design directions for Firefox, the Mozilla project and the Web as a whole.

http://design-challenge.mozilla.org/jetpack-for-learning

JISC invites bids for extension and development of LEAP2A



Taking forward the Portfolio Interoperability Prototyping (PIOP) work, JISC is seeking to further extend the LEAP2A specification to cover other systems or platforms. In order to do this, JISC invites tenders, up to £50,000 in total, to conduct up to ten mini-projects to implement user-controlled LEAP2A export and import on their own systems, produce associated documentation, and discuss and agree any resulting implications for the specification.

http://www.jisc.ac.uk/fundingopportunities/funding\_calls/2009/10/leap2a. aspx

#### The Eclipse Public License - An Overview

The Eclipse Public License is a weak copyleft licence used by the not-for-profit corporation The Eclipse Foundation on the software projects that it hosts. Rowan Wilson gives us an overview of the licence and its significance in software development projects.

http://www.oss-watch.ac.uk/resources/epl.xml

#### Open source could save UK schools £60 million a year

A national partnership has been launched at Bletchley Park, to encourage UK local authorities to look at implementing open source solutions in all areas of their education services, in order to save up to £60 million a year.

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http://www.eweekeurope.co.uk/news/open-source-could-save-ukschools--60-million-a-year-2100

# ATutor LMS: a case study

Full article can be found at: http://www.oss-watch.ac.uk/resources/cs-atutor.xml

#### **Brief Description**

ATutor is an open source, online learning environment used to develop Web-based courses, author e-learning content, and present instructional materials on the Internet.

ATutor came about after two studies that looked at the accessibility of Web-based learning environments for people with various types of disabilities.

Since its initial release late 2002, ATutor has continued to evolve, with a development focus on its accessibility and conformance with interoperability standards. ATutor development has also focused on accommodating small e-learning scenarios, a market virtually untouched by other similar systems whose major focus is on capturing a part of the large institutional e-learning market. While ATutor does accommodate smaller e-learning scenarios, it scales easily to accommodate larger installations.

#### Introduction

ATutor is labelled a Learning Content Management System (LCMS), which is a designation generally assigned to tools used to author and archive learning content. In addition to its content authoring and

content sharing capabilities, it also has a large collection of modular tools that can be combined in different ways to adapt the system to various theoretical approaches to teaching and learning. ATutor can also be classified as a Learning Management System (LMS) or a Course Management System (CMS) or a Virtual Learning Environment (VLE), all terms used to describe tools used to offer courses over the Web.

From the beginning, accessibility has been a major focus of ATutor development, ensuring that anyone could access the system, not only to learn online, but to function as an author, instructor or an administrator of the e-learning environment. A blind person for instance, would be able to participate fully in online learning activities, develop and teach an online course, or manage his/her own Webbased learning environment.

Developed at the Adaptive Technology Resource Centre (ATRC) at the University of Toronto, ATutor is one of many projects at the centre that focus on inclusive access to information and information technology. The ATRC is a not-for-profit organization that promotes accessibility on a global scale.

#### **Project History**

The concept behind ATutor originated in a graduate school project in 1994. Greg Gay was developing an online course called Learning to Learn. The course taught students about learning skills, individual differences, and focused on developing self-awareness of individual learning capacities to help learners better adapt to a range of learning activities. At the time, there was no e-learning environment that reflected the cognitive-based theory being taught in the course, so the initial system was developed to reflect two key aspects of cognitive learning theory. The first aspect revolves around the perceptual forms knowledge takes on in memory (visual, verbal/auditory, textual) and the senses through which this knowledge is accumulated. The second revolves around the structural forms knowledge takes on in memory, in webs of related information, hierarchical structures of topics and sub topics, and sequences of step-by-step procedures or the progression from simple to complex understanding.

In 1999 the first of two studies at the ATRC that looked at the accessibility of e-learning environments, was a technical audit of popular e-learning environments for their conformance with the W3C Web Content Accessibility

> Guidelines (WCAG). The second study in 2000 was a user study in which people with various types of disabilities participated in an online course, each week presented in a different e-learning environment. Some systems fared better than others, though none provided

an all-round inclusive environment in which all users were able to participate fully in learning and teaching activities.

#### Project Structure: sustainability model

As a not-for-profit organization, with a focus on promoting accessibility, ATRC projects rely on external funding sources. ATutor development has been funded primarily through grants, though it also continues to be supported through contract development work, support services, LMS hosting, and donations. All profits are channelled back into development.

With the introduction of modules and patches, there has been a move toward distributing development out into the community, with ATRC's effort focused more on underlying structural development, leaving specific feature development to be either funded or developed through its user community. External developers contribute to the system's development primarily through the Patcher, adding new features by developing patches that merge into the public source code, to make their features a permanent part of the system.

Following the introduction of modules, it was not long before a variety of community contributed modules appeared. Some include the SCORM Player, Photo Album, FlowPlayer movie player, Certificates, Adobe Connect, Announcement Subscriptions, Content to PDF, Social Networking, and the Patcher, among others. The SCORM Player, social networking, and the Patcher modules have become a permanent part of the ATutor core source code.

http://www.oss-watch.ac.uk/resources/cs-atutor.xml

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## Paul Anderson talks to Jono Bacon



Published as a guest post on 3 November 2009

Jono Bacon is the community manager for Ubuntu, a popular distribution of GNU-Linux. Based on his experience Jono has just written a book, published by 0'Reilly but available under a

Creative Commons Licence, about community and open source. Originally from England, these days he is based near Berkeley, California. Paul Anderson from Intelligent Content caught up with him on a recent visit to London.

#### Q: You've just published a new book, The Art of Community, what's the key message you are hoping to get across?

The Art of Community essentially teaches the reader how to build a productive and enjoyable open source community. It starts with a bird's eye view of the social science behind the concept of 'community' and then gets into how to build a strategy for a particular community. The book then delves into each of the elements that go into the delivery of that strategy such as processes, governance, tools, running events, dealing with conflict, and how to hire a community manager. *Q: So why is the idea of community so important for* 

#### open source?

I think that there are ethical benefits and there are pragmatic benefits. The ethical benefits of working through a community seem fairly obvious to me. They are things like it helps to reduce elitism, providing an opportunity for everyone to get involved, and it provides opportunities for people to gain experience. On the pragmatic side, a community that has been harnessed effectively can deliver some really interesting things. For example, on one of the projects I worked on we decided to open it up for translations [of the documentation] and within two weeks we had 17 languages.

#### Q: In the book you argue that a 'sense of belonging' is important.

Yes. The way we build community is to create a sense of belonging. When people feel that sense of belonging in the community then they feel like they

are part of something, they feel it is their 'place', their home. And when they have that they feel like contributing back to the community.
x. Meritocracy is very important part of this. This is where people build up reputations based on the

merit of what they actually do. It is the only way that a distributed community can really work. When anyone is in a meritocratic environment they fundamentally feel a sense of principles and they really treasure the premise of equality.

## *Q: Ubuntu operates a code of conduct. This seems to be an important thing to get right.*

When you build a community the first thing you need to do is build a set of principles. You need to say this is the culture that I want to instil and for open source software that means a culture of openness and transparency with freedom to contribute. You want people to be respectful and polite but not too restricted in their communications with each other.

The Code of Conduct we have in the Ubuntu community is essentially to provide a charter of reasonable interactions. So what it does is say: 'every contributor to Ubuntu should follow this conduct'. It is a very basic set of 'don't be an idiot' instructions. I believe that documents like this can hold tremendous value and it is held in very high regard in the Ubuntu world. This kind of thing helps build a sense of belonging.

#### Q: This raises the issue of managing the community, or as you describe it in the book, 'Governance'.

Governance is having some kind of official structure that takes decisions on behalf of the community, like a Management Board or a Council. One of the mistakes that a lot of communities make is to believe that they need an explicit and very expansive governance structure in place, otherwise they are not real community. And this is not true. Ubuntu has quite an expansive governance structure in place. We have a community Council and a tech Board at the top, and then various team councils that report to them. But this is because the Ubuntu community is huge and we need this to deal with the scale of what we're doing. If you're a smaller project you just don't need that.

## Q: You also talk at length about process workflows and tools.

Yes, I think it's really important to get this right. On the workflow side of things the focus is on identifying ways in which people can work together on common problems, for example bug tracking. How do you handle bugs? How does the team triage them when they come in? Who fixes them? All these are part of the community workflow, they are really important and the book has a lot of 'hands on' stuff about these issues.

I think that tools need to be applicable to do the job. One of the problems for a lot of communities is that they want to have something like a public website, so what they'll do is agree that they need a website, but then have a long and drawn out debate about which content management system they should use. What happens is that they spend more time bickering about tools than actually doing something good like having a basic project website and actually getting people to visit it.

What I recommend in the book is that they just pick something, it doesn't matter too much what that is. In a year's time they will want something different. The first six months of a community is the most critical time and a team needs to be built - a sense of excitement, a sense of belonging needs to be built up. You don't get that by spending the time bickering about tools like a CMS.

### Q. Widening things out a little, where do you see the general situation with open source today?

I think we are in good shape. What we are doing is building a new IT industry with open source, building a new approach to software and I think we have made tremendous progress. Just look at Linux. I first got involved in 1998 and we have made so much progress in the intervening years. I look back to those days when I actually needed a soldering iron and a steady hand to get Linux working on my PC! We have made huge progress in terms of writing software, making it useful and integrating it with systems.

http://osswatch.jiscinvolve.org/2009/11/03/guest-post-paulanderson-interviews-jono-bacon/



#### Encouraging community contribution with a small example

Published by Steve Lee on October 13, 2009

previously blogged how Mark Johnson provided an excellent example of contributing local changes or bug fixes to an open source project. I was

impressed that while the contribution was very small (1 line) it managed to encapsulate the process and so acted as a good example for illustrating how to engage. Accordingly I drew out the process that Mark followed from his post.

Whilst planning our recent OSS Watch workshop - Engaging developers with open source projects Gabriel spotted my post and decide to invite Mark to present. This turned out to be an excellent move as Mark's presentation *The Line of Code That Could: Contributing to Moodle* not only complemented the other talks by Scott Wilson (Wookie) and Ian Boston (Sakai), but also made us aware of something important.

Mark's presentation smoothly told the story of how he found a problem in Moodle when implementing a feature for use in his institution. He went on to explain the process he followed of engaging with the Moodle developer community and ultimately submitting a patch to fix it and that is now in the

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Moodle codebase. This is explored in depth in my previous post. At the end of the event Ross did a round robin of 'what did you get out of it' and a handful said they would consider submitting their code to the relevant project community. This is a significant 'win' and even if only one person actually follows through we have a result to be pleased with. In our debrief we decided that Mark's talk played an important part in achieving this positive outcome. I've identified the following reasons as key

- By being a very small contribution and a 'first' contribution it presented an example that others could easily relate to. Especially those who have not yet contributed and who were the target of this workshop. This contrasts with the other talks from the perspective of verv experienced submitters (actually committers).
- · Mark obviously enjoyed the process and the outcomes, including the kudos he gained.

 While Mark made significant extra effort to engage and submit it was clear this had real value to him, his employers and to the Moodle community.

We'll be looking for other ways use this realisation in our events and resources in order to encourage users and developers to engage more fully with their project communities.

http://osswatch.jiscinvolve.org/2009/10/13/ engouraging-developers-to-submit-theyrewith-a-great-talk/

on 7 December 2009.



# **Events**

fOSSa Conference 2009 - Grenoble, France, 17-18 November 2009 17/18

The fOSSa (Free/Open Source Software Academia) Conference will take place 17-18 November 2009 at the World Trade Centre, Grenoble, France. The conference will focus on topics such as business models, licences, collaboration, communities, promotion, exploitation, sustainability, and European projects. The event will be of interest to those in academia and research but is open to industry as well. Registration is free.

http://www.ow2.org/fossaconference

#### Open Source, Open Development, Open Innovation Workshop - Oxford, 7 December 2009 The central concept behind open innovation is that in a world of widely distributed knowledge, organisations

cannot afford to rely entirely on their own research. Open innovation is a means by which companies can both collaborate on research and share outputs. This OSS Watch workshop will introduce open innovation and look at how it applies to software outputs from academic research institutions. It will take place at The University Club, 11 Mansfield Road, Oxford, OX1 3SZ on 7 December 2009.

http://www.oss-watch.ac.uk/events/2009-12-07\_business/programme.xml

#### Open Development: Building an Engaged Community Workshop - Oxford, 7 December 2009 Open development thrives on a diverse community of participants who engage in the project and also attracts others with new skills and resources. Such a diverse community also increases project sustainability as the project can survive the exit of participants. This OSS Watch workshop will help you understand how open development works and provide you with a practical appreciation of the skills, practices and mechanisms that

encourage an engaged community. It will take place at The University Club, 11 Mansfield Road, Oxford, OX1 3SZ http://www.oss-watch.ac.uk/events/2009-12-07\_community/programme.xml



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#### BCS event - Public Funds in the UK: Open Source for Document and Content Management? London, 7 January 2010

The British Computer Society's Open Source Specialist Group (OSSG) will be holding a one day event to consider "Public Funds in the UK: Open Source for Document and Content Management? " on Thursday 7 January 2010 at the BCS Central London Offices, First Floor, The Davidson Building, 5 Southampton Street, London WC2E 7HA. This event aims to examine the challenges of web and document management in the public sector, and the part that open source can play. Mark Elkins is interested in hearing from people who would be interested in speaking at this event as well as those interested in attending. http://ossg.bcs.org/2009/09/20/public-funds-in-the-uk-open-source-for-

document-and-content-management-london-070110/

# **Frequently Asked Questions**

What licence should I release my software under?

This is not a question that can be answered easily. It depends on many variables. However, we can help you make a decision about the most appropriate licence for your project. We do this by sitting down with key stakeholders and understanding your circumstances and objectives. We will then outline the options you have available and highlight the differences between them.

For more answers to your questions visit: http://www.oss-watch.ac.uk/about/fag.xml

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