Open Source: an introduction

Randy Metcalfe

OSS Watch

© University of Oxford

This document is licensed under

http://creativecommons.org/licenses/by-sa/2.0/uk/

Key messages...

These are the points to take away from this talk:

- *open source* is a copyright licensing paradigm
- *open source* is about freedom
- *open source* is a software development methodology
- *open source* is about community
- *open source* is a business model
- good policy needs to be discussed, understood, and embedded into current practice
- JISC's open source software policy is good policy

OSS Watch

...and relax

In this talk

- OSS Watch
- The open source landscape
- The policy framework in the UK

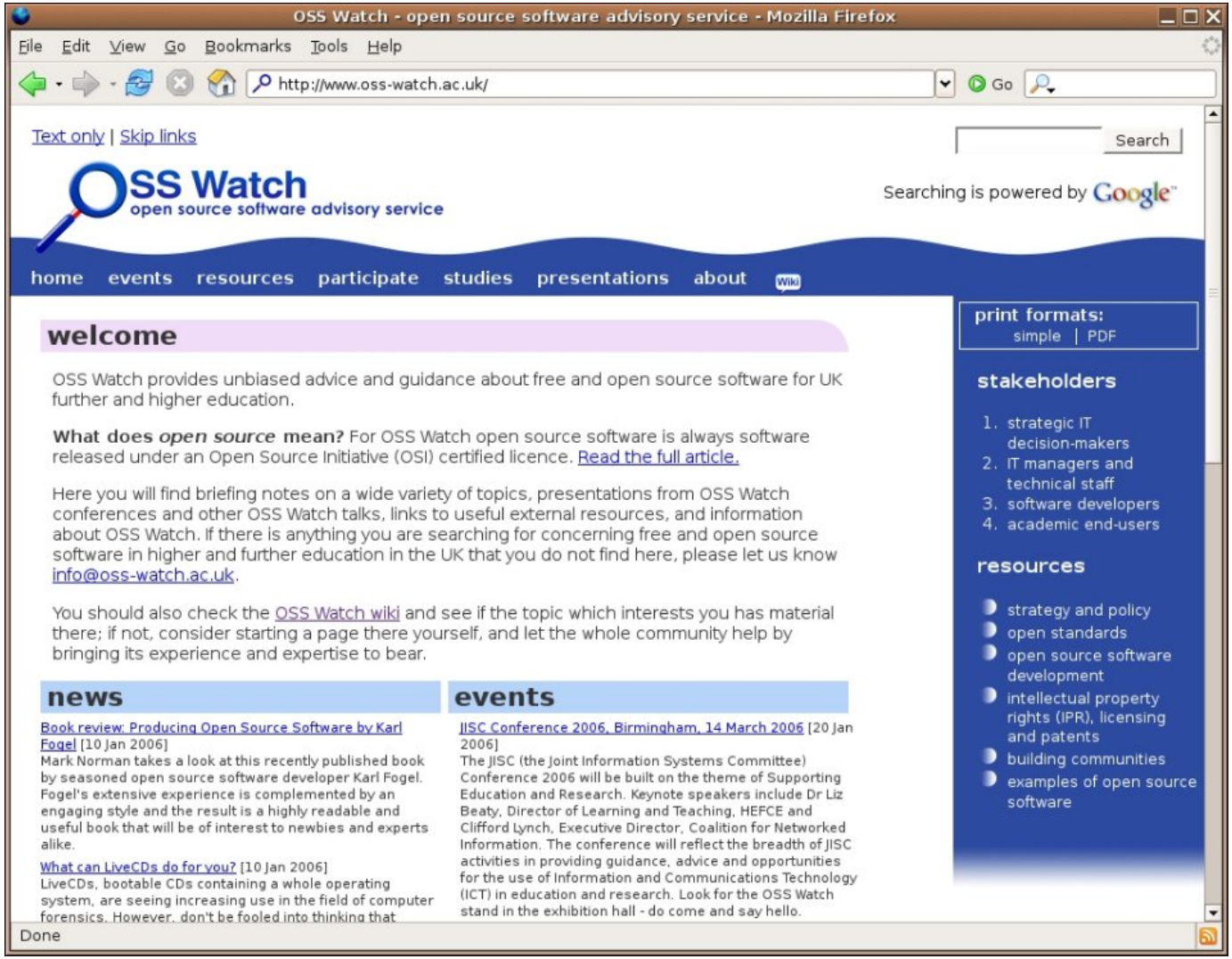
OSS Watch: the UK open source software advisory service

OSS Watch provides unbiased advice and guidance on free and open source software for UK higher and further education.

- strategic IT decision-makers
- IT managers and technical staff
- software developers
- academic end-users

OSS Watch is funded by the Joint Information Systems Committee (JISC) and based within the Research Technologies Service at the University of Oxford.

OSS Watch website



Promoting awareness and understanding

OSS Watch is *not* an advocacy group. There are many other groups across the world who fulfil the advocacy function, e.g.:

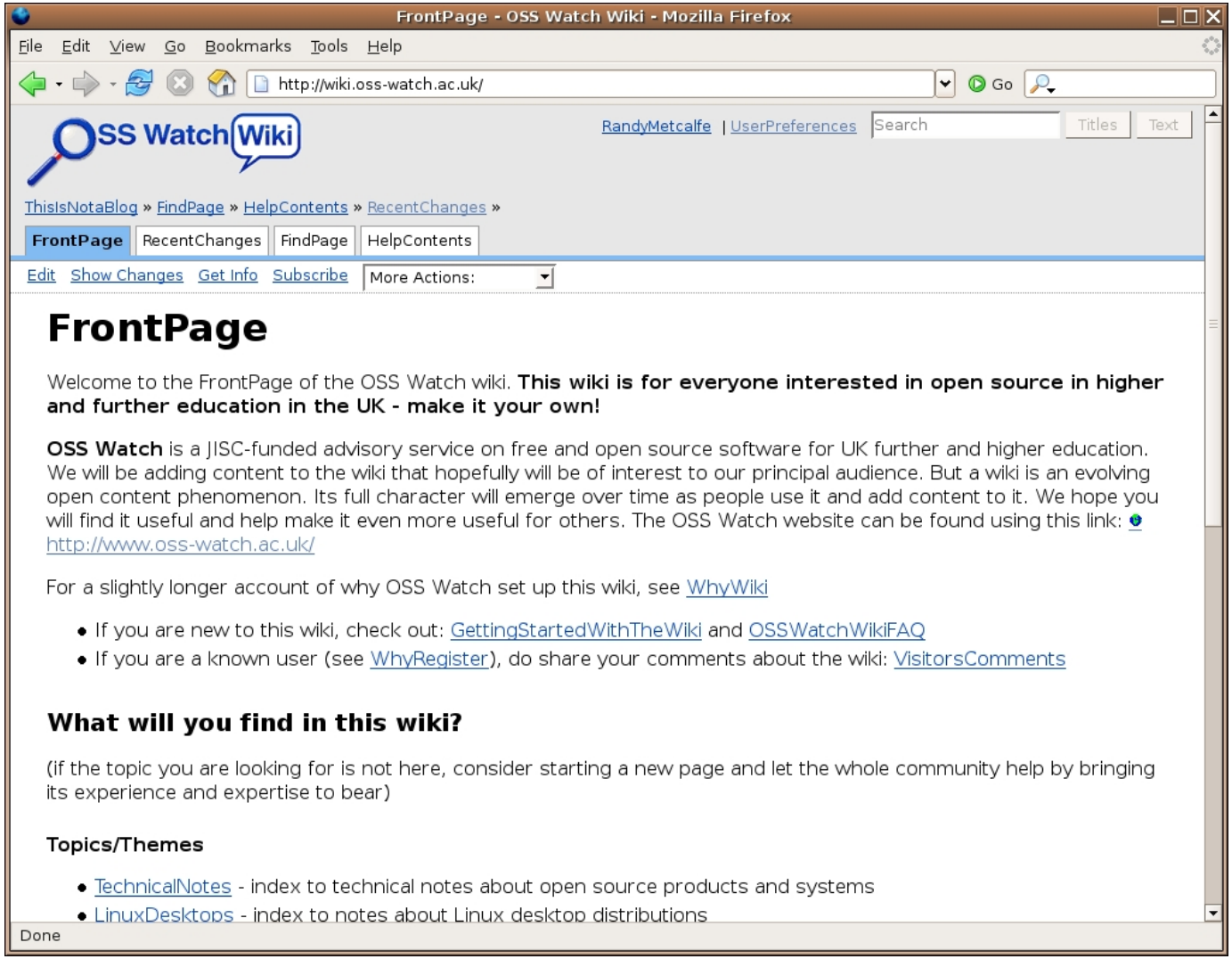
- Free Software Foundation
- Open Forum Europe
- SchoolForgeUK
- and many more

OSS Watch's role is to promote awareness and understanding of the legal, social, technical and economic issues that arise when educational institutions engage with free and open source software.

OSS Watch activities

- Website http://www.oss-watch.ac.uk/
- Wiki http://wiki.oss-watch.ac.uk/
- Briefing notes and guidance materials
- Conferences and workshops
- Consultation
- Research
  - national survey on open source software use in HE and FE
  - JISC study on models for sustainability in open source projects

OSS Watch Wiki



Open source software licences

Open source is not a self-certification scheme.

Either your software is released under an Open Source Initiative (OSI) certified licence or it is not open source software.

There are, at present, 58 OSI certified licences.

The first question you should ask of any software claiming to be *open source* is, what licence is this software released under?

All certified licences meet the 10 criteria of the Open Source Definition http://www.opensource.org/docs/definition.php

Why OSI?

The OSI is not a legislative body. Its authority resides entirely in the fact that the open source community

- recognizes it as the maintainer of the Open Source Definition (OSD)
- is willing to participate in the OSI certification process
- has not set up a viable alternative

OSD criteria

- free redistribution
- source code
- derived works
- integrity of the author's source code
- no discrimination against persons or groups
- no discrimation against fields of endeavour
- distribution of licence
- licence must not be specific to a product
- licence must not restrict other software
- licence must be technology-neutral

Open source is about freedom

- The freedom to run the program, for any purpose
- The freedom to study how the program works, and adapt it to your needs
- The freedom to redistribute copies so you can help your neighbour
- The freedom to improve the program, and release your improvements to the public, so that the whole community benefits

The Free Software Definition

http://www.gnu.org/philosophy/free-sw.html

Free vs Free

In many languages we distinguish between two very different senses of *free*.

In French, we have *libre* and *gratuit*.

In English, we sometimes mark this distinction be pointing out the difference between *free speech* and *free beer*.

Free and open source software is not about free beer!

Open source is a development methodology

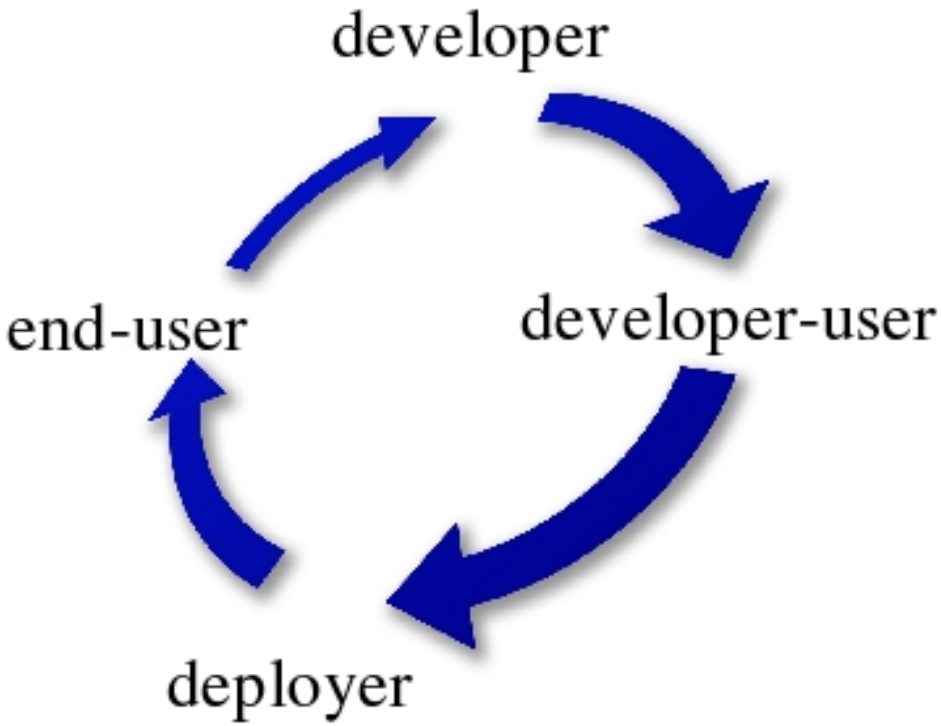
Key features of open source development may include:

- Programmer commitment, because the programmer is also the user
- Rapid change, because programmers want to see results
- Unconstrained specifications, because there is no external client
- Collective maintainance of the code
- Response to change, dictated by (perhaps unexpected) users

Eric Raymond famously characterised this apparent new development paradigm in his monograph *The Cathedral and the Bazaar*.

Open source is about community

Those who *merely* deploy open source software are also part of the open source community.



It's the community, not the code, that's important.

Open source is a business model

Any business whose business model depends upon the use or development of open source software is an open source business.

This leaves plenty of room for many different types of businesses:

- consultation
- business process analysis
- implementation support
- bespoke module development
- ongoing support contractor
- training
- hosting
- and more!

Policy framework in the UK

- Government Open Source Software Trials: final report http://www.cabinetoffice.gov.uk/e-government/policy_guidance/index.asp
- Open Source Software: Use within UK Government http://www.govtalk.gov.uk/policydocs/
- Becta report - Open Source Software In Schools http://www.becta.org.uk/corporate/press_out.cfm?id=4681
- BBC use of open source http://www.bbc.co.uk/opensource/
- OSS Watch http://www.oss-watch.ac.uk/

UK government initiatives

Office of Government Commerce software trials: Sept 2003 - October 2004. Key conclusions:

- Open Source software is a viable and credible alternative to proprietary software for infrastructure implementations, and for meeting the requirements of the majority of desktop users; no significant obstacles were noted for the adoption of Open Source in infrastructure developments
- Adoption of Open Source software can generate significant savings in hardware and software costs for infrastructure implementation, and reduce the licensing costs and hardware refresh requirements for desktop implementation

UK Government open source policy(1)

The second and current version of the UK government policy was issued on 28 October 2004:

- UK Government will consider OSS solutions alongside proprietary ones in IT procurements. Contracts will be awarded on a value for money basis.
- UK Government will only use products for interoperability that support open standards and specifications in all future IT developments.
- UK Government will seek to avoid lock-in to proprietary IT products and services.

UK Government open source policy(2)

- UK Government will consider obtaining full rights to bespoke software code or customisations of COTS(Commercial Off The Shelf) software it procures wherever this achieves best value for money.
- Publicly funded Research and Development projects which aim to produce software outputs shall specify a proposed software exploitation route at the start of the project. At the completion of the project, the software shall be exploited either commercially or within an academic community or as OSS.

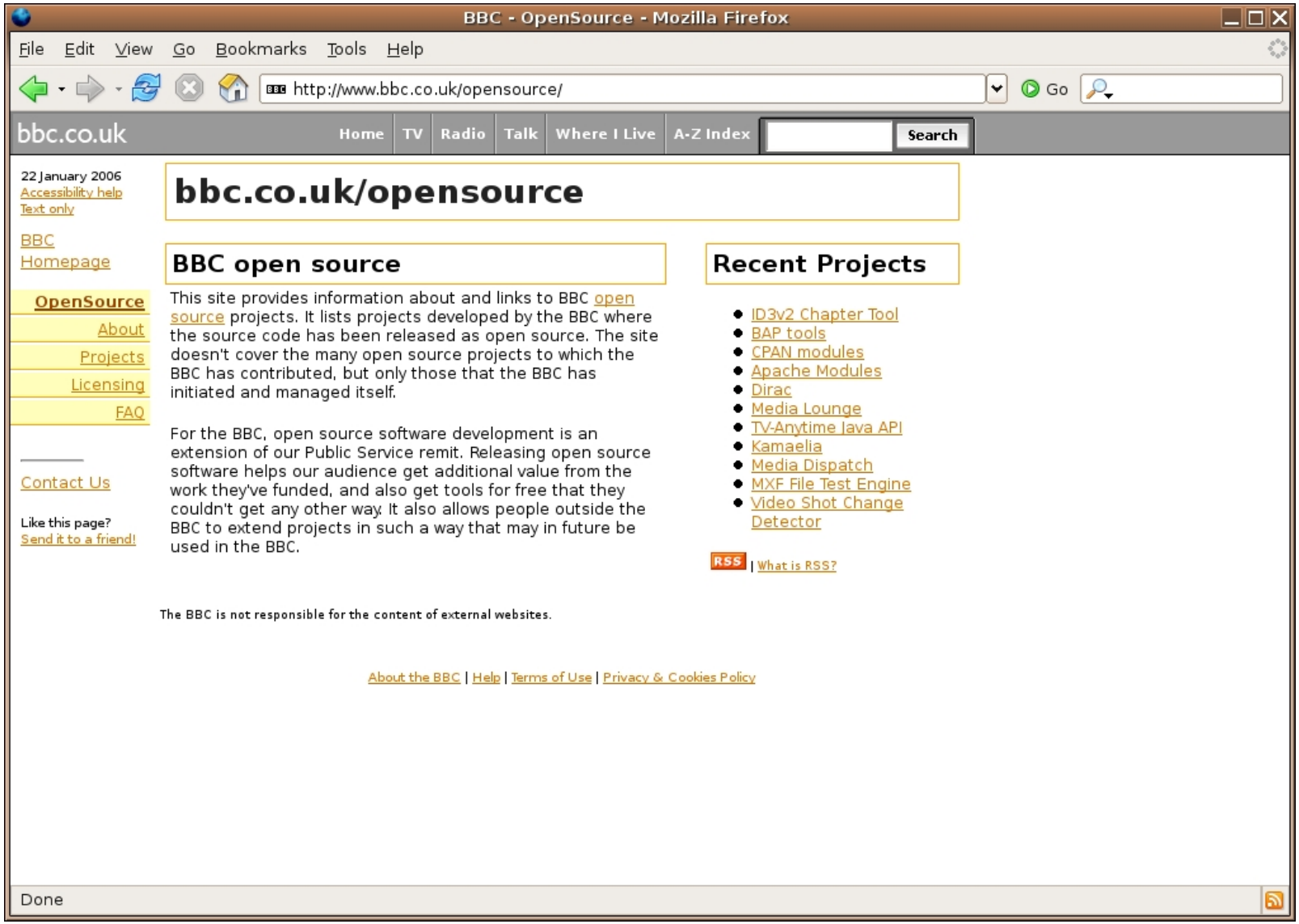
Becta study: Open Source Software In Schools

Becta study conducted in 2004-5, published immediately after the May election on 13 May 2005:

- Our study indicates that OSS can be implemented successfully as a networking solution within the technical infrastructure and with obvious cost benefits. It is important to adopt a strategic approach to financial planning in which any savings are then allocated to best meet the wider educational aims of the school.
- The use of office-based OSS such as StarOffice and OpenOffice offers a cost-effective alternative to proprietary office software.

BBC use and development of open source

Randy Metcalfe



JISC sets up a pilot open source advisory service

In April 2003, JISC issue an ITT for:

- a pilot advisory service designed to collate and disseminate information about the availability, and the respective strengths and weaknesses, of Open Source Software products relevant to UK Further and Higher Education.

JISC open source policy

The JISC *Policy on Open Source Software for JISC Projects and Services* was initially drafted by Sebastian Rahtz and Stuart Yeates of OSS Watch. It is based on

- UK government open source policy
- well-established best-practice in software engineering and management of intellectual property rights (IPR)
- current IT best-practice within JISC and higher and further education more broadly

It was confirmed by the principal JISC committee in February 2005, but not published on the JISC website until September 2005.

http://www.jisc.ac.uk/index.cfm?name=about_policy

JISC open source policy(1)

- Advice and guidance to the communities JISC serves must be neutral and unbiased, and must not discriminate between open source and closed source software products.
- Calls for funding, the bidding process, the award of funding, the administration of awarded funding and the evaluation of funded projects and services must not discriminate between between open source and closed source software, unless the purpose of the projects or services specifically requires it.
- Where open source and closed source software are evaluated against one another, value for money over the expected lifetime of the system must be compared.

JISC open source policy(2)

- Projects must maintain an IPR register, listing all contributors to their software and who owns the copyright on contributions.
- The ownership of code which is to be developed in joint projects must be established before work begins.
- Copyright of software, documentation, design materials, user interface and source code must be released under an OSI-approved open source licence, unless the bid explicitly argues why this should not be the case and proposes an alternative licence.

JISC open source policy(3)

- Projects must state in their bid whether they foresee the project continuing beyond the timespan of funding, and if so whom they see participating in the project.
- Projects should engage with end users and other parties to encourage and build self- sustaining communities.
- Projects should accept bug reports, patches, translations and feedback from contributors outside the project.

Key message

These are the points to take away from this talk:

- *open source* is a copyright licensing paradigm
- *open source* is about freedom
- *open source* is a software development methodology
- *open source* is about community
- *open source* is a business model
- good policy needs to be discussed, understood, and embedded into current practice
- JISC's open source software policy is good policy

OSS Watch

...and relax

Further Information

For more information on open source software development and deployment, visit http://www.oss-watch.ac.uk/ or write to info@oss-watch.ac.uk