



Open source development and VLE procurement

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Overview

- OSS Watch
- Open source software
- Open source and UK HE
- Procuring open source VLE





OSS Watch

- JISC funded open source software advisory service (non-advocacy)
- Online and f2f support
 - Licensing and IPR management
 - Open source project support
 - Evaluating and using open source
 - Business Models



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What we do

- Advice on all things open source
 - Procurement, engagement, development, legal
- Services
 - Consultancy, events, presentations
- Publications
 - Briefing notes, surveys, case studies, slides
 - <http://www.oss-watch.ac.uk/resources/>



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What we don't do

- Advocacy
- Legal Advice (but we do give advice)
- Teaching programming
- Develop software for others
- Recommend specific software



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My role

- social anthropologist
- fieldwork-based study of distributed communities
- my focus: community building in open source for sustainability



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What is open source

- It's very simple - the **licence** is what determines whether software is open source
- The licence must be approved by the Open Source Initiative (www.opensource.org)
- All approved licences meet their Open Source Definition (www.opensource.org/docs/definition.php)
- Approved licences >50 and include the GPL, LGPL, MPL and BSD.





And in practical terms

Open source means:

- The source code is available to the end-user
- The source code can be modified by the end-user
- The licensing conditions promote re-use and wide availability of the software
- The cost of acquisition to the end-user is often minimal



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Open source vs. free software

- Open source software is not the same as free software but there is a large overlap
 - `` Open source is a development methodology; free software is a social movement.''
- The Free software Foundation maintains a Free Software Definition (www.fsf.org)





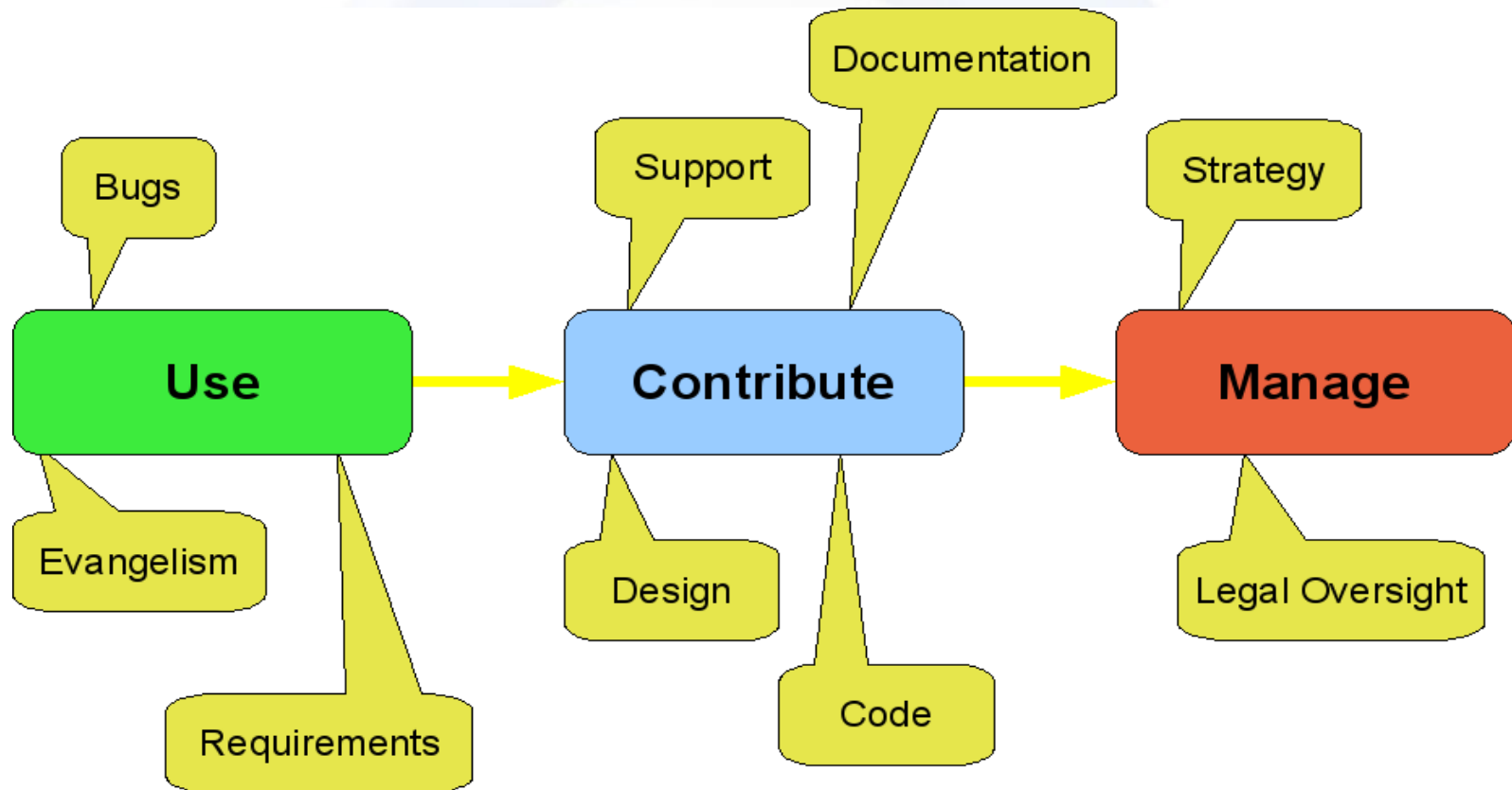
More than a licence

- “The real value of open source software is that it allows communities to work together and solve problems” [7] I. Wladawsky-Berger, IBM
- Open development to build sustainable communities



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Open Development



Myth: beard and sandals

Do I need to be a hacker to use oss?

- No. It's a popular myth that open source is only for hackers.

But is open source really in the mainstream?

- Yes. Apache HTTPd, an open source product, is the most widely used web server.

Many organizations from governments to commercial companies rely on open source software every day.





Myth: free (as in beer)

- There are costs (staff, support, training), but you can save money
- InfoWorld [1]:
 - 50% companies deploying more than 25 open source products report greater than 20% savings in IT budget
 - 1% companies report costs went up





Myth: no support

- Oracle, IBM, Sun, HP, Red Hat and many others will sell you support contracts
- Many smaller companies
- Anyone can get the source, anyone can provide support





Myth: not “commercial”

- Worldwide revenue \$1.8bn in 2006 rising to \$5.8bn in 2011 [5] IDC report
- Mozilla Foundation & Corporation: \$76M revenue in 2007
- MySQL sold for \$1 Bn
- ZenSource sold for \$500M





Market reality

- “Open source is the most significant all encompassing and long-term trend that the software industry has seen since the early 1980s” [5] IDC report
- “By 2012, more than 90 percent of enterprises will use open source in direct or embedded forms” [6] Gartner report



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Official guidelines

- **UK Government** policy: consider OSS solutions alongside proprietary ones in IT procurement. Contracts will be awarded on a value for money basis [2]
- **European Commission**: similar policy [3]
- **JISC**: open source is the default option for development work, projects must not discriminate between open and closed source software [4]



National survey 2008

- ICT Directors from
 - 454 FE/FE+HE institutions
 - 161 HE institutions
- 19% response rate



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Policy vs. practice

- Policy
 - OSS mentioned: 30% (2006), 57% (2008)
 - staff contributions regulated only in 14%
- Practice
 - OSS considered: 77% (2006), 87% (2008)
 - only 15% alongside closed source





The trend is open source

- Server software:
 - All or almost all closed source
 - Down from 56% to 40%
 - Half open and half closed source
 - Planned to increase from 3% to 11%
- Similar trends on desktops





Evaluating software and providers

- ▶ Closed source evaluation looks at the provider and the software as a single entity
- You can't see the development methodology

Open source evaluation separates these factors

- Software functionality
- User engagement and the development model
- Paid for support providers



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Evaluation frameworks

- Open Source Maturity Model (OSMM)
[Capgemini, Navica]
- Qualification and Selection of Open Source software (QSOS)
- Open Business Readiness Rating (Open BRR)



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What to evaluate

	OSMM (Capgemini)	OSMM (Navica)	QSOS	OBR
Software (non-technical)	X	X	X	X
Software (technical)			X	X
Integration		X	X	X
User support	X	X	X	X
Adoption	X		X	X
Development Process	X		X	X
Documentation		X	X	X
Professional Services		X	X	X
Training		X	X	X





Evaluation process

- ▶ All frameworks follow roughly the same approach
 - Assess against criteria
 - **Apply weightings**
 - Calculate overall product score
- ▶ The process of evaluation encourages one to evaluate the parts of a project unreachable in closed source





Adopting an OS VLE

- Delhi Institute of Technology experience [8]
- Research and select new system
- Prescribed timeline
- Migrate courses
- Train users
- Develop documentation





Requirements gathering

- Match functions of current VLE, e.g.
 - upload and store media files
 - online quizzes, discussions, etc.
- Integration for course setup and user enrollment





Total Cost of Ownership

3 year cost	A Hosted	A Local
License Year 1	\$12,169	\$12,169
License Year 2	\$12,169	\$12,169
License Year 3	\$12,169	\$12,169
Membership	\$15,000	n/a
Banner Connector	\$9,000	\$9,000
Server	n/a	\$10,000
Support Softw	n/a	IIS, SQLserver
Init. Setup Fee	n/a	n/a
Remote Hosting (3 years)	\$23,898	n/a
Supp. Staff: Sys Admin (3 yrs)	\$19,227*	n/a*
Supp. Staff: Developer (3 yrs)	n/a*	n/a*
Supp. Staff: MID (3 yrs)	n/a*	n/a*
Supp. Staff: Training (3 yrs)		n/a*
Supp. Staff: Help Desk (3 yrs)	;19227 + Delhi Staff	
Total	\$142,086	\$45,507
TCO Rating	0	1



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Total Cost of Ownership

3 year cost	S Hosted	S Local
License Year 1	\$0	\$0
License Year 2	\$0	\$0
License Year 3	\$0	\$0
Membership	\$15,000	\$15,000
Banner Connector	?	?
Server	n/a	\$10,000
Support Softw	n/a	IIS, MySQL
Init. Setup Fee	n/a	n/a
Remote Hosting (3 years)	?	n/a
Supp. Staff: Sys Admin (3 yrs)	n/a*	n/a*
Supp. Staff: Developer (3 yrs)	n/a*	n/a*
Supp. Staff: MID (3 yrs)	n/a*	n/a*
Supp. Staff: Training (3 yrs)	n/a*	n/a*
Supp. Staff: Help Desk (3 yrs)	n/a*	n/a*
Total	\$15,000	\$25,000
TCO Rating	4	5



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Total Cost of Ownership

3 year cost	M Hosted	M Local
License Year 1	\$0	\$0
License Year 2	\$0	\$0
License Year 3	\$0	\$0
Membership	\$0	\$0
Banner Connector	\$903	\$903
Server	n/a	\$10,000
Support Softw	n/a	IIS, MySQL
Init. Setup Fee	n/a	n/a
Remote Hosting (3 years)	\$9,000	n/a
Supp. Staff: Sys Admin (3 yrs)	n/a*	n/a*
Supp. Staff: Developer (3 yrs)	n/a*	n/a*
Supp. Staff: MID (3 yrs)	n/a*	n/a*
Supp. Staff: Training (3 yrs)	n/a*	n/a*
Supp. Staff: Help Desk (3 yrs)	n/a*	n/a*
Total	\$9,903	\$10,903
TCO Rating	8	9



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Open vs. close source

- Rich community of users: forums, tutorials, resources, bug tracker
- Less cost - at all levels
- Just as stable and more feature-rich
 - More social networking capability
 - Quicker to gain new features
- More customizable





Conclusions

- OS is more than a licence: a development methodology
- OSS is a serious alternative to proprietary software
- OSS can provide cost saving and sustainability if properly managed
- OSS Watch are here to help



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- www.oss-watch.ac.uk
- info@oss-watch.ac.uk



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