

## FE Learners and Open Source

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OSS Watch

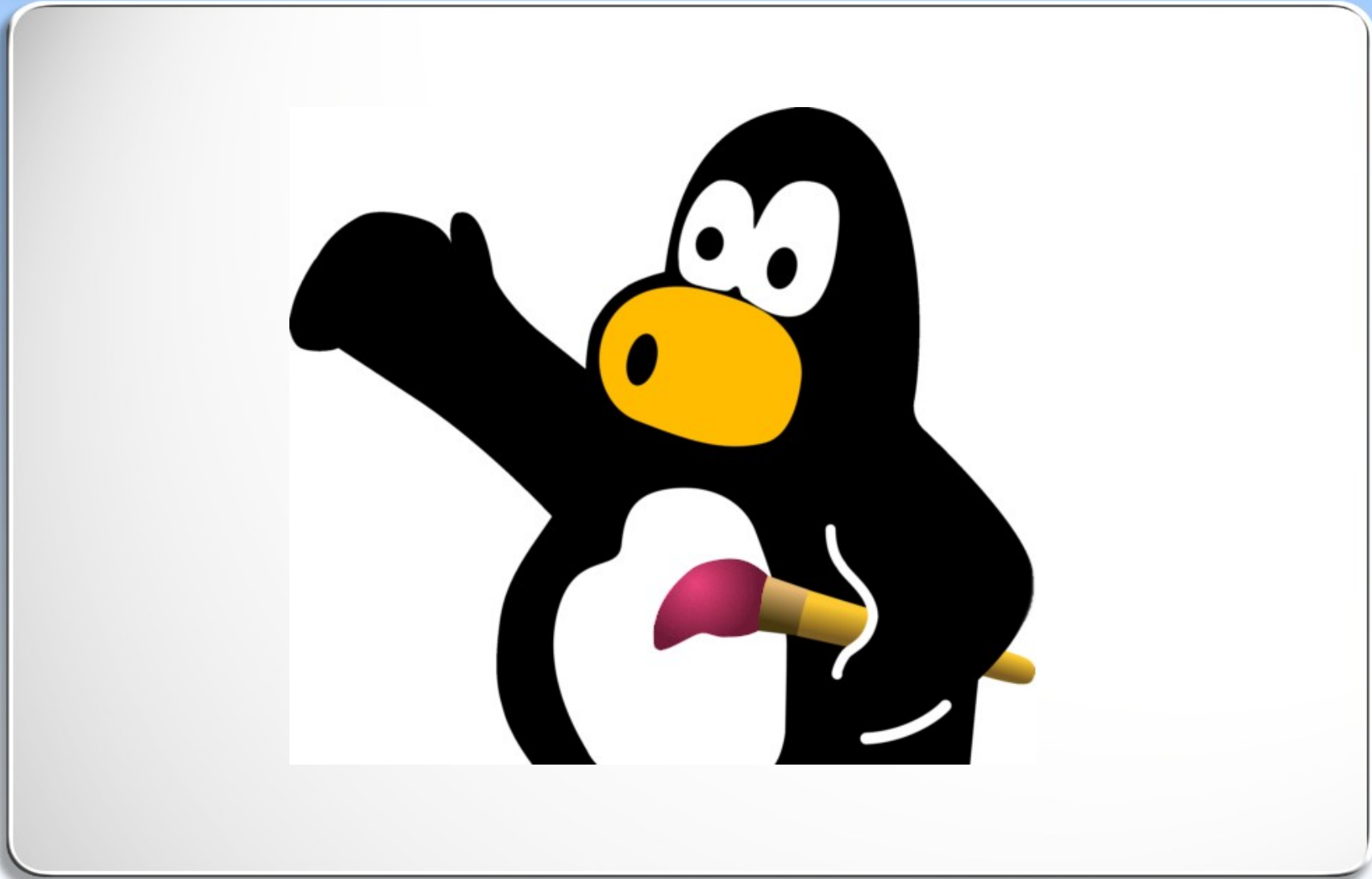
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<http://www.oss-watch.ac.uk>

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## OSS Watch

- Open source advisory service
  - Procurement, engagement, development, legal
  - Consultancy, events, community development
  - Publications and surveys
- Non-Advocacy
- Free of charge to FE and HE
- JISC case study - <http://is.gd/12nGj>

# SS Watch



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The screenshot shows a software interface with the following components:

- Tools:** A vertical column of icons including Paint, Stamp, Lines, Shapes, Text, Magic, Undo, Redo, Eraser, New, Open, Save, Print, and Quit.
- Stamps:** A vertical column of image stamps including a pink arrow, two coins, a sunset, a globe, a flower, a red rose, a starburst, a black circle, a globe, and a globe with a grid.
- Colors:** A horizontal row of color swatches including black, white, red, pink, yellow, green, cyan, blue, purple, and brown.
- Workspace:** A central area containing two rows of 3D roses. The top row has six roses in white, red, pink, orange, yellow, and green. The bottom row has five roses in cyan, blue, purple, yellow, and grey.
- Footer:** A small penguin icon and the text "Great!"

## Today is Tux Paint day

- 16/06/09 7th anniversary of first release
- It's free (and fun)
- Windows, Mac OS X and Linux
- It's best for kids ages 3 to 12 years old

[www.TuxPaint.org](http://www.TuxPaint.org)

## Today is Tux Paint day

- Help me celebrate "Tux Paint Day" tomorrow by telling just `_one_` friend about Tux Paint!
- For the technically-saavy parents out there, drop me a line if you'd like to help us find and fix bugs!
- Bill Kendrick et al  
<http://www.tuxpaint.org/developers/>

## Tux Paint stats - in 7 years

- 1<sup>st</sup> release after 2 days of development
- 64 releases were made
- 83 languages - Afrikaans to Zapotec
- 150+ volunteers contributed
- 770+ stamps were created
- 38,000+ lines of source code
- over 3.5 million downloads

## It starts with a licence...



- Software released under an OSI approved licence
- In practice, approx. same as free software (FSF)



## Open source definition

- Free redistribution
- Source code
- Derived works
- Integrity of author's work
- No discrimination against persons or groups
- <http://www.opensource.org/docs/definition>

## But it's much 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
- Sustainable communities
- Open formats and standards
- Open development

## 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

## Why? Official Guidelines

- **UK Government** will consider OSS solutions alongside proprietary ones in IT procurements. Contracts will be awarded on a value for money basis [2]
- The **[EC]** will consider OSS solutions the same way as proprietary ones in IT procurements. Contracts will be awarded on a value for money basis [3]
- **JISC**-funded projects must not discriminate between open source and closed source software, unless the purpose of the projects or services specifically requires it [4]

## Monetary Value

- Large commercial organisations making heavy investments in projects:  
Linux Foundation board includes - Novell, Oracle, Fujitsu, Intel, IBM, Hitachi, HP, AMD, NEC, Texas Instruments, Motorola
- Worldwide revenue \$1.8bn in 2006 rising to \$5.8bn in 2011 [5] IDC report
- Often **commercial** but never **proprietary**

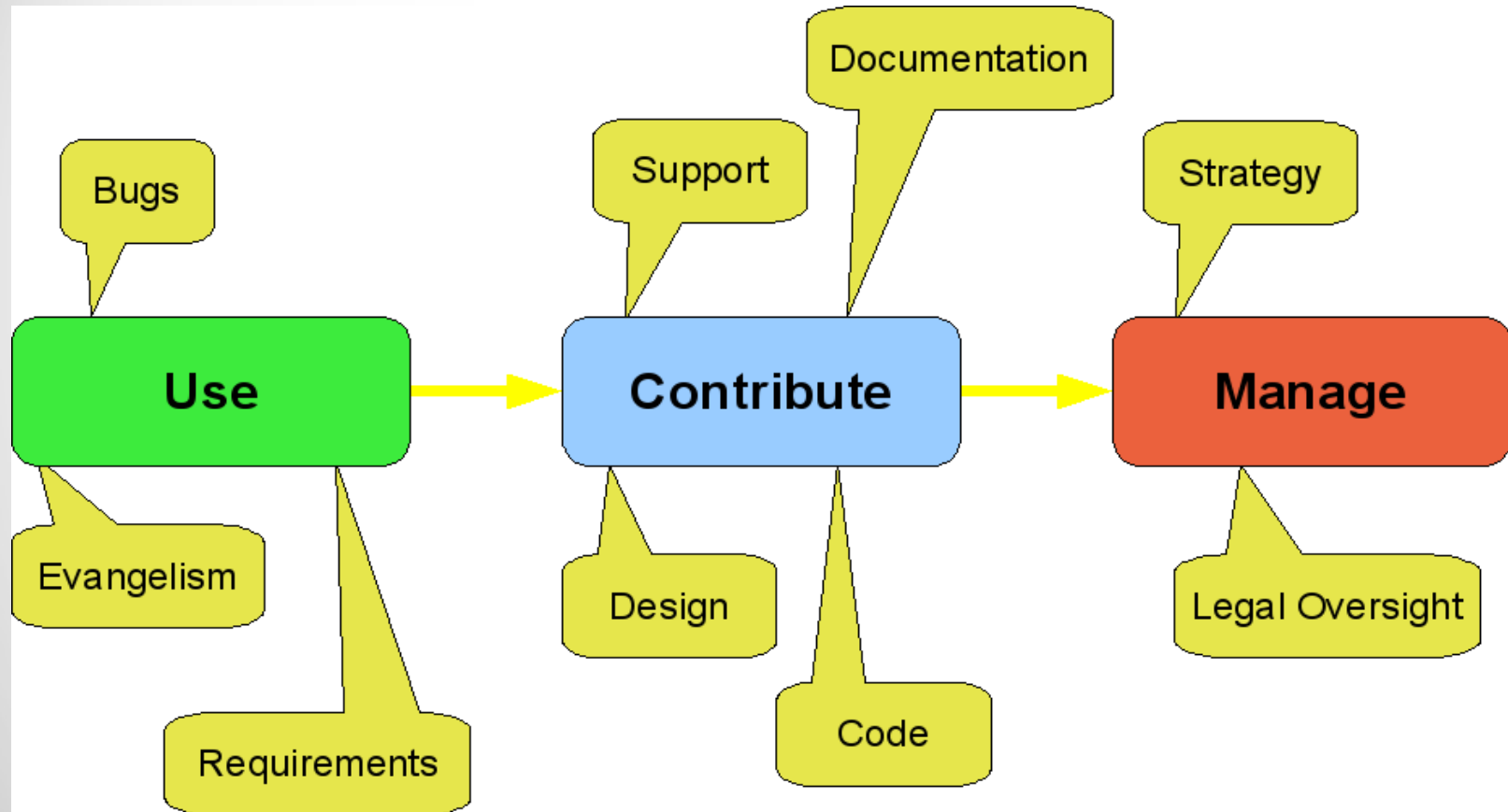
## Costs

- Licence costs are zero
- Staff, support, training, maintenance costs
  - 50% companies deploying more than 25 open source products, > 20% savings in IT budget [1] InfoWorld
  - 1% companies costs went up [1]

## Supporting OSS

- You can self support - even change code
- ... Or interact directly with project
- ... Or outsource all support and development services
- Or a mixture – you decide

## Project Community





## Deploying OSS

- Use in enterprise deployment
- Or individual teacher/student 'innovations'
- Pass on to students for home use

## OSS may be the answer... or may not

- Consider open source alongside closed source and make an informed decision
- Some key pitfalls with open source
  - You need the right person or company to administer and support it
  - projects sometimes lack support mechanisms or resources (docs, communities, etc.)

Be aware of restricted versions (all features in a closed source version) or closed development

## Your Enterprise Needs?

- Managing risk
- Flexibility
- Interoperability & integration
- Avoidance of lock-in
- Viable alternatives

## Open Source in HE and FE

- National survey 2008
  - ICT Directors from UK HE and FE institutions
  - 454 FE/FE+HE
  - 161 HE
  - 19% response rate

## Limited resources in FE

- Typical FE ICT departments employ between 7 and 10 staff
- 7 times larger in HE
- FE staff lower technical qualifications on average
- Traditionally, FE less open source friendly than HE, but now you are catching up

## Criteria for procurement in FE

- Top criteria
  - Performance, interoperability with other products, familiarity and TCO (servers)
  - Performance and avoid lock-ins, TCO (desktops)
- Bottom criteria
  - Ideological reasons and migration costs (servers)
  - Migration costs and legal issues (desktops)

## Reasons to reject OSS given by FE

- Top reasons on servers
  - Lack of staff expertise and support
  - Poor quality
- Top reasons on desktops
  - Not what users want
  - Lack of staff expertise
  - No solution for our need
  - Lack of support

## What is needed in tenders?

- Focus on user needs not products or technology
- Recognise customisation is always needed
- Recognise the value of reuse through collaboration



## What is needed for adoption?

- Understand the open source development model
- Engage with the OSS development model (not mean just programming)
- Become aware of *professional* and *true* open source companies

## But what about Learners?

- OSS originally back-end, infrastructure and programming languages. By techies, for techies.
- Now many excellent end-user applications, with educational focus or useful in education setting.
- Accessibility – NVDA, innovation

## Specific Programs?

- Wide range – it's just software
- Web resource include OSALT, DMOZ, and Open Source Schools
- For accessibility try OATSoft.org
- OSS Watch don't track specific project features but will help evaluate projects

## Exploring

- Easy to obtain and evaluate
  - individual teachers
  - e-Learning advisers
  - IT departments
  - students
- System integrators can help identify and integrate

## EduApps - try before you 'buy'



RSC Scotland North & East

- Run from an USB stick, no install, menu
- AccessApps, TeachApps, LearnApps
- OSS Watch case study coming soon
- <http://www.eduapps.org/>



Moodle VLE/learning platform combines

- Open development
- Social constructionist learning
- A vibrant global community of developers and practitioners.
- Community is source of it's success

## Learning with OSS

- Students can get experience by engaging with or contributing to projects.
- Learn global citizenships skills.
- ICT courses can
  - get students to raise bugs and track
  - use OSS programming environments such as Squeak or languages like Python
  - learn about real-world scale projects

## OSS savvy courses

- The INGOTS certificates in open technologies are low cost and at higher levels require community contribution (not necessarily code)
- Other higher levels initiatives are underway, partly to meet industry demand for OS skills . E.g Mozilla TOS



## Conclusions

- OSS Watch is here to help you **info@oss-watch.ac.uk**
- Open source starts with a licence, but works thanks to the community development practices.
- System integrators play an important role but you have options.
- Volunteers, small and big businesses... but are they reaching FE?
- Trend is clearly towards more open source

## Benefits of OSS Watch

- reduction in the cost of software acquisition, implementation, maintenance and support
- ensuring interoperability between systems
- maximising the chance of sustainability
- evaluating adaptability of software
- reduced exposure to supplier performance and viability

OSS Watch are here to be your guide