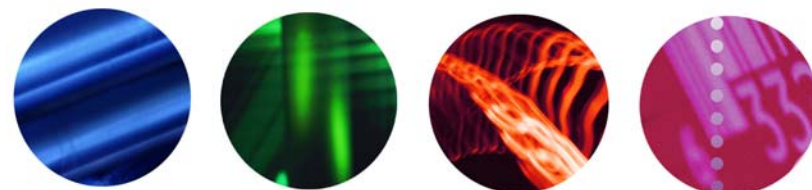


## **Open Source *versus* Commercial Software**

Alan Robiette, JISC Development Group

[<a.robiette@jisc.ac.uk>](mailto:a.robiette@jisc.ac.uk)



Supporting further and higher education

# Outline

---

- Some history
  - Characteristics of open source software (OSS)
  - What are the advantages of OSS?
  - What are the drawbacks?
  - OSS licensing issues
  - Summary and conclusions
- 



# Some history

---

- OSS in the modern sense really began with the Free Software Foundation and the GNU Project (1983-1985)
    - Plus much of the Internet infrastructure
  - Fuelled by the success of high profile projects in the 1990s
    - E.g. Linux, Apache
  - Now quite a significant force even in the commercial sector
    - cf. involvement of IBM, Sun, HP ...
- 



# What exactly is OSS?

---

- Software whose licence permits users the freedom to
    - Use the software for any purpose
    - Scrutinise and modify the source code
    - Redistribute freely the original or modified code
  - Note also that
    - OSS is often free to obtain; but may be available also with commercial support
    - Some written by commercial companies
- 



# Some categories of OSS

---

- Operating systems
    - Linux, FreeBSD ...
  - Desktop products
    - OpenOffice, Mozilla ...
  - Server utilities, programming etc.
    - Apache, Sendmail, Perl, Python ...
  - Major applications
    - uPortal, Dspace, Bodington ...
  - Research and discipline-specific
- 



# Advantages of OSS

---

- Code quality
    - Independent scrutiny by substantial communities of skilled programmers
    - Particularly valuable where security issues are important
  - Speed of development
    - And also bug-fixing, in the best cases
  - Freedom from supplier dependence
    - The main attraction for many users
    - A big help for long term preservation
- 



# Cost issues

---

- OSS is sometimes referred to as “free” software
    - But: “free as in free speech, not free as in free beer”
    - No software has zero cost of ownership, and OSS may often cost more to maintain than commercial software
    - Serious studies of the economics of OSS are hard to come by and not that conclusive either way
- 





# Drawbacks of OSS

---

- Many OSS products suffer from
    - Lack of formal support mechanisms
    - Indifferent or poor documentation (may matter less for server-side products, which only expert support staff handle)
    - Unpredictable development cycles
  - All factors implying a need for larger and more skilled IT support teams in user organisations
- 





# OSS licensing issues

---

- Two main styles of OSS licence
  - 1. GNU Public Licence, *aka* GPL
    - Designed to preserve the source from commercial exploitation
    - Attractive to individual OSS enthusiasts
    - Particularly unattractive to commercial developers
  - 2. BSD/MIT/X11 licence
    - Places essentially no restrictions on what can be done with the code
- 



# Which licence?

---

- Don't invent your own licence!
    - Those already in existence have been proven in use and cover most needs
  - The BSD/MIT licence is good where the aim is to get standards adopted
  - The GPL is good where the aim is to involve the widest academic community
- 



# What is JISC doing?

---

- A pilot OSS Advisory Service will be launched shortly
    - Funded for two years initially, with an option to extend for a further year
    - Other long term service options will be considered in the light of the first two years' experience
    - Will provide information and stimulate debate on product availability, sources of support, community case studies, licensing, economics etc.
- 



# And coming soon after ...

---

- Proposals being sought for a JISC Digital Curation Centre, whose key objectives include:
    - Develop a reliable sustained repository of tools, software etc. to support curation/preservation/use of data
    - Develop testbeds and certification for such tools, software & curation methods
    - Record and monitor file formats etc.
    - Provide advice on all of the above
- 



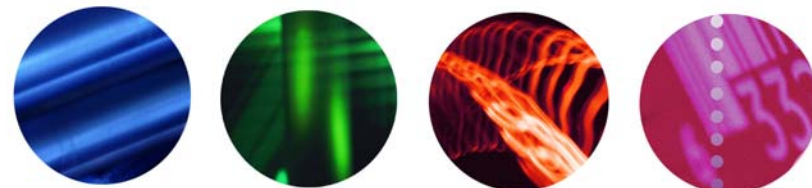
# Conclusions

---

- OSS is now a serious alternative to commercial software in many fields
    - With some particular advantages in the academic and research communities
  - In today's context, availability of source code is crucial for the long term preservation of software environments
- 



## Questions?



Supporting further and higher education