A FLOSS Curriculum
EduCamp@FOSDEM 2009

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Libre software (FLOSS) and education: two approaches

- **Curriculum design:**
  Helping to learn about libre software.

- **FLOSS-friendly studies:**
  Properties that a given implementation of a curriculum should satisfy to consider it “friendly to libre software”.
Main conditions:
- Avoid learning about specific proprietary tools
- Use of FLOSS programs in practices
- Use of open standards

Higher friendliness:
- Libre educational materials
- Exclusive use of FLOSS in practices
FLOSS: a maturing field

- Libre software has gained a lot of attention from companies, public administrations, users of software in general
- Libre software is a complex (and new) world
- We’re starting to know facts (not just opinions) about it
- Many expert professionals are needed
- It seems about the right timing to talk about education about libre software (not only specific technologies)
Curriculum: basic assumptions and aims

- Libre software is more and more important, but almost no specific studies deal with it
- Knowledge about libre software is maturing
- Industry and society showing interest in professionals with this profile
- Background: IT engineers (informatics, telecom, etc.), but also open to other backgrounds
- Target: provide a comprehensive, multidisciplinary education on the matter
- “To reach, as a result of the master, the level of a person with good knowledge of the libre software world”
- Hopefully, all materials available as libre documents
After the “Bologna declaration”, European countries are adapting to some common rules in higher education studies.

Legislative changes required, each country with its own calendar.

Common framework: graduate, postgraduate, PhD.

The MoLOS group started to design a postgraduate programme.

The CALIBRE project also joined the effort.

http://www.nongnu.org/masterlibre/
http://bl.ul.ie/calibre/deliverables/D4.5.pdf
The Open World Forum working group

- Joining efforts coming from different backgrounds
- Define a set of subjects (ACM Curriculum style)
- Some, specific to libre software
- Some, introducing libre software in traditional studies
- Discuss some possible implementations (combing graduate and postgraduate levels)

http://oscurr.v2.cs.unibo.it
A possible master implementation: core credits

- Introduction: general background
- Economy and business models: economic models, business cases
- Legal matters: licensing, legislative initiatives, legal implications
- Sociology and ethics: motivation, communities, ethics of the libre software movement
- Development environments and tools: what is used in libre software development
- Project management: how are libre software projects managed
- Case studies: broad and comprehensive study of libre software projects, companies, organizations, etc.
A possible implementation: optional credits

Open, according to the offer of implementing institutions and to the expected profile. Some possible subjects:

- Languages common in libre software projects
- Advanced project development; Version control and configuration management
- Installation and administration of usual libre software platforms
- Libre software web based systems
- Security; Office tools; Multimedia; Mathematical tools
- Database systems; Embedded systems
A possible implementation: practicum

- Goal: to let students have real first hand experience of the libre software world
- If possible, participation in real projects
- General experiences related to libre software (multidisciplinary)
- Master’s thesis
Our implementation (A)

- Promoted by GSyC/LibreSoft (URJC), Caixa Nova, Igalia (since Sept 2007)
- Editions in Vigo and Madrid (Spain)
- Blended learning (in-place classes on Fridays and Saturdays)
- 20 ECTS (programming, quality, etc.) skills
- 60 ECTS (one academic year)
- Most documentation already available on-line

http://master.libresoft.es/
http://www.mastersoftwarelibre.com/
Our implementation (B)

- Promoted by GSyC/LibreSoft (URJC), Escuela de Organización Industrial (Business School) (since Sept 2009)
- Editions in Madrid and Seville (Spain)
- More towards management, not technical, not developers
- 60 ECTS (one academic year)
- 15 ECTS MBA, 30 ECTS FLOSS + Open Innovation, 15 Master thesis

http://master.libresoft.es/
http://www.mastersoftwarelibre.com/
This is an open design

- Open to participation (in several stages)
- Intended to be suitable for different implementations
- A continuous process
- Results of the design process are public
- Feedback from companies and public administrations is welcome!
In short...

- We’re trying to get a common minimum curriculum
- Achieving a consensus on the basic academic structure would be interesting
- All of this is open to collaboration
- Several implementation scenarios
- Several masters on libre software already running, some partially compliant with this proposal
The future

- Follow on with the design: more debate, more precision
- Experience from implementations
- Interest from the NESSI Working Group on OSS
- Joint work with the MoLOS group?
- Coordination with other projects and institutions?
- Maybe joint degrees in the forthcoming years
- Join forces with FLOSS projects (Mozilla, Apache, GNOME, KDE...)
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