

A FLOSS Curriculum

EduCamp@FOSDEM 2009

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we study libre software

GSyC



Universidad
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LibreSoft

we study

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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”.

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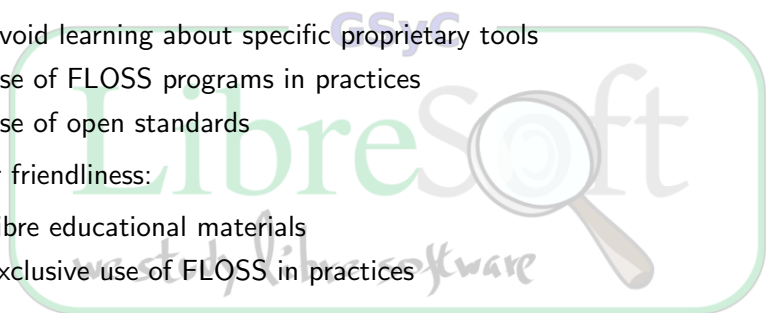
FLOSS-friendly studies (proposal for discussion)

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

European background and the MoLOS group

- 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)

we study libre software <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

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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)

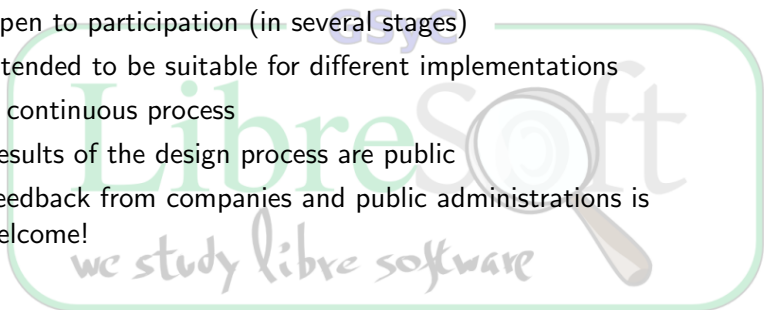
- Promoted by GSyc/LibreSoft (URJC), Escuela de Organización Industrial (Business School) (since Sept 2009)
- Editions in Madrid and Seville (Spain)
- More towards management, not technical, not developers
- 60 ECTS (one academic year)
- 15 ECTS MBA, 30 ECTS FLOSS + Open Innovation, 15 Master thesis

<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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