

# MasterLibre

”Autour du Libre”

Libre Software in Higher Education

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# Agenda

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- Status quo
- The challenges
- MoLOS approach
- Lessons learned
- Where are we now
- Final thoughts and comments

# Background

Traditional computer science studies do not include the understanding of Libre Software and its implications for society

nor

The Free - and Open Source  
Development and Collaboration  
Model.

# Background

- Today it is possible to study computer science and graduate without having studied the impact of important legal issues such as copyright, trade marks, licenses, software patents, and standards.
- Choise of business model.
- Administration, sociology, and economy etc.

# Status quo

- The technical aspects are predominant.
- The reason being that programming skills are the same for all kinds of applications.
- Code looks the same- whether or not it is free or proprietary.
- It is the license which govern if a program is proprietary or free and what kind of rights the user has.

# The challenges

- To convince universities and business schools to open up their doors to studies of Libre Software.
- Explain what is to be gained in terms of innovation, new teaching models, and methods.
- Producing new knowledge and the sharing of knowledge.

# The challenges

- To get the existing learning material = the curriculum translated into more languages.
- It exists in Spanish and Catalan:
- <http://www.uoc.edu/masters/softwarelibre/es/materials.html>
- Get funding for the translation project.
- The material is not static, but follows the development (in society).

# The MoLOS approach

- Who are behind this Master Libre initiative?
- Many of the worlds most prominent developers, professors, teachers, scientists, and philosophers etc.
- In EU: Spain, Italy, France, Portugal, UK, Norway, Sweden ....  
In USA: Berkley, Stanford, MIT, Harvard plus in Columbia, and Venezuela ....



# The MoLOS approach

- On the board and advisory board are:
  - Manuel Castells, president (UOC)
  - Vinton Cerf (WorldCom)
  - Marcelo D'Elia Branco (software livre project, Brazil)
  - Juantomás García (Hispalinux)
  - Jesús M. González Barahona (Univ. Rey Juan Carlos)
  - Pekka Himanen (University of California at Berkeley)
  - Miguel de Icaza (Ximian/Novell)
  - Òscar del Pozo (Softcatalà)
  - Pam Samuelson (University of California at Berkeley)
  - Rafael Macau, secretariat (UOC)
  - Jordi Mas, secretariat (UOC/Ximian/Softcatalà)
  - David Megías, secretariat (UOC)

# The MoLOS approach

- In 2002 five universities in Spain, France, and Portugal took the initiative to establish an independent education in Libre Software.
- In 2004 12 universities discussed the Bologna Declaration: A statement of intent to establish a European Learning Space with mobility, transferability of credits, and compatible learning cycles.

# The MoLOS approach

- There is a short explanation on the project here: <http://www.nongnu.org/masterlibre/>
- You are welcome to join the project mailing list on: [masterlibre-list@nongnu.org](mailto:masterlibre-list@nongnu.org)

# The MoLOS approach

- Real world example:
- You can find more info (in Spanish) about the actual distance-learning Master programme on the UOC website:
- [http://www.uoc.edu/masters/esp/informatica/software\\_libre/software\\_libre.html](http://www.uoc.edu/masters/esp/informatica/software_libre/software_libre.html)
- Specialist
- Master
- Postgrade

# The MoLOS approach

- CORE (basic) courses (20 ECTS):
  - - Introduction to free software
  - - Basic GNU/Linux operating system
  - - Advanced administration of GNU/Linux
  - - Implantation of free software systems

# The MoLOS approach

- ELECTIVE courses (25 ECTS among a 60 ECTS offer):
  - - Computer networks
  - - Extension of computer networks
  - - Advanced networking: security issues
  - - Introduction to software development
  - - Advanced concepts in software development
  - - Software engineering in free software.....

# The MoLOS approach

- - Web applications development
- - Database systems
- - Legal aspects of free software
- - Utilities and tools
- - Economical aspects and business models in free software
- - Free software in the public sector
- **FINAL PROJECT or MASTER'S THESIS (15 ECTS)**

# The MoLOS approach

- Possible courses:
- The economy of free software
- Network administration
- Case studies
- Ethical and social aspects



# Lessons learned

- FLOSS encourages participation in the creative process of software development.
- FLOSS provides a very low barrier to entry for participation - You don't have to be involved, but if you want to, you can.
- FLOSS encourages and enables innovation.

# Lessons learned

- Skills learned through participating in a FLOSS education community:
- Programming
- Copyright law and licenses
- Teamwork and team management
- Business model understanding
- Administration and economy

# Where are we now?

- We have come a long way in a short time:
- In Europe a Master programme is now officially approved by the Spanish Ministry of Education and Science and will be offered as an official degree from September 2006.
- Other programmes are offered in full or as individual courses in Italy, UK, France, Norway, Sweden, South America and USA.

# Where are we now?

- A full curriculum is already available which can be further expanded.
- The real fun comes when the creative subjects are also included.
- Usefull Url:
- <http://www.nongnu.org/masterlibre/>

# Final thoughts and comments

- Students join a knowledge-sharing community and in collaboration with others solve real problems and cases as part of their study.
- In this social environment, the teacher will learn together with the students.

# Final thoughts and comments

- Today we have very few examples of internationally recognised educations with a common content which gives access to the global work market.
- Tomorrow it will be the norm.

Thank you for your attention.

Do you have any questions?

In English or French.

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Long time friend of  
Libre Software,  
EuroLinux Alliance,  
"RMML"  
and now  
"Autour du Libre"