Why must schools use FOSS4G?

Portuguese OSGeo

Education Workgroup

(**Ricardo Pinho**)
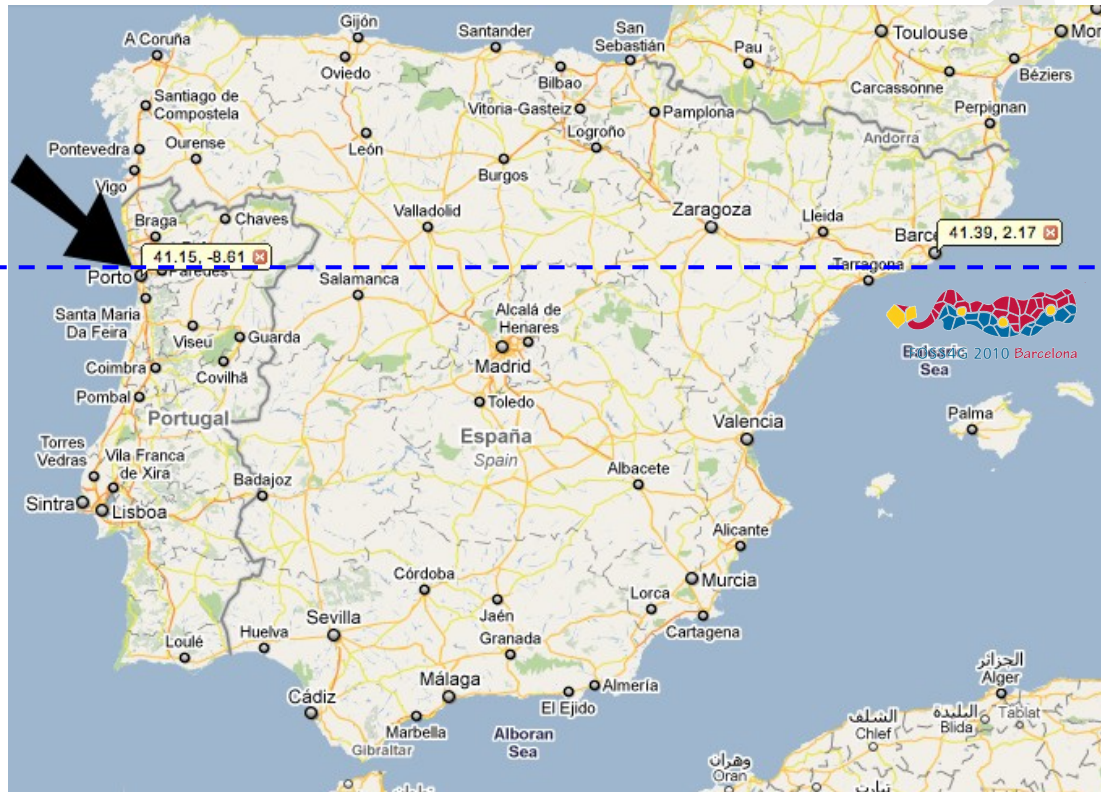
Introduction

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- I work for a Portuguese Local Authority

- I represent the **Portuguese OSGeo Education Workgroup**

- I am very glad to be at FOSS4G "*con nuestros hermanos*" in this **amazing city of Barcelona**!

- Please forgive me if my English isn't perfect!

Outline

"Why must schools use FOSS4G?"

1. Why teach with software?

2. Free VS Closed Software for Education

3. The Education Workgroup initiative

4. Case studies

5. Future Workgroup plans

Teaching tools

- From the past…

Teaching tools

- To the present...

Teaching today

- The Internet, computers and **software are valuable tools for today's education**

- Geographic Inquiry and Geographic Information System **(GIS) technology are becoming indispensable tools** for education and teaching

- **Governments worldwide stimulate the use of Free Software because it offers freedom**: freedom to learn, to teach; freedom from competition and freedom of speech

- **All the reasons why computer users should use free software** also apply to schools…

"Free" Advantages

- **No licensing costs** can save schools a lot of money that can be spent on more relevant matters

- **Freedom** to use, copy, modify, distribute, get access to the source code

- **Equality** between students and schools, independently of its wealth or dimension

- **Fraternity**, cooperation and mutual aid between users, developers, students and family

- **Citizenship** promotion by teaching students to participate in free software communities

- **Legal education** by eliminating illegal copying practices of proprietary software from schools

- **Independent** students that use free software after they graduate

SchoolForge.net

fsfe

associação
ensino livre

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"Free" Advantages

- **Knowledge** by learning how software works from reading and changing source code

- **Interoperability** and Open Standards provides the freedom to use any software in schools

- **Diversity** of available free software helps to select the most appropriate for specific needs

- **Quality and security** open source software encourages users and programmers to find bugs and security flaws

- **Longer use and updated** software can run on old and cheaper school hardware, latest improvements are immediately available

- etc…

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- The free software community **rejects the priesthood of technology and knowledge**

- The school **must practice what it preaches** and let students use software whenever and wherever they want

- **Knowledge is universal**, Free Software too

- Free software never goes bankrupt and therefore **does not "destroy" any knowledge**

"Free" Disadvantages

- **Resistance to change** closed software arrived first and is well established in schools

- **Apparent chaos for the newcomer** because of the overwhelming range of free software

- **Lack of ready-made teaching materials** with good support, offered in large quantities by closed software companies

- **Education is a strategic market** for closed software companies and they will not give it up without a fight

"Free" Challenges

- **Promoting a vision** - free software can only have a place in school if teachers, coordinators, heads and authorities understand what Free Software is, and how they can make use of the competitive advantages

- **All teachers should have an opportunity** to be familiar with alternative free software and get all the support they need to use it in classes

- **Create free ready-made teaching materials** by stimulating teachers and others actors to create, cooperate and share with others in producing free educational materials

- **Free Software use in Schools must be stimulated!**

OSGeo - PORTUGAL

- OSGeo Portuguese Local Chapter
  http://wiki.osgeo.org/wiki/Portugal

  - At SASIG'09 Local Chapter meeting a group of members decided "**Let's do something about Education!**"

  - The "**Education Workgroup**" was born, with 11 volunteers, a Mission and a Wiki page: **http://wiki.osgeo.org/wiki/Ensino_/_Educação**

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  – Mission: "**To undertake activities to encourage the use of Free GIS Software in Education and Portuguese Schools**"

Education Workgroup

- Education Workgroup activity to date:

  - 9 months old
  - 17 members
  - 8 IRC meetings
  - OSGeo Mailing List

Education Workgroup

- Education Workgroup activity to date:
  - 4 started projects:
    - List of existing case studies
    - Moodle for Teaching Materials
    - Courses Contacts List
    - Writing a paper for press releases
  - Vision promotion in universities' events
    - Coimbra University
    - References in GISVM presentations

Education Workgroup

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  - Community inquiry using a Google Form

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- Project: **List of existing case studies**
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  - Public list on OSGeo Wiki
  - Total of 12 case studies

  - Objective: **to promote public visibility and stimulate national networking**

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  - Objective: **to stimulate Free Teaching Materials creation** by making a public infrastructure with examples available

Education Workgroup

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Education Workgroup

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  - Community inquiry using a Google Form
  - 70 contacts

  - Objective: **to provide a contact list for Workgroup public announcements, and help it reach teachers interested in migration**

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  - Create a free editable Google Doc for producing an article explaining the Workgroup's Mission

Education Workgroup

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  - Objective: **to encourage involvement by writing an article promoting the Workgroup initiative, in magazines, newspapers, etc**

Education Workgroup

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  - References in several GISVM presentations: SASIG2, Porto University (FCUP), Inst. Politécnico Leiria, Inst. Politécnico de Tomar, etc

  - Objective: **to present and explain the Free Software Alternative and Advantages for School Teachers, Directors, Students, etc.**

Case studies

- More than **12 Portuguese Case Studies** obtained through a community inquiry

Case studies

- **"Open Source Tools for Spatial Ecological Modeling"** (spatial-ecology.net project)

  - **By Amatulli G. and Casalegno S.**

  - **Univ. Zaragoza (Spain)**: "Master GIS Remote sensing" for the year 2009 and 2010

  - **Univ. Basilicata, Potenza (Italy)**: "International Doctoral School: Crop Systems, Forestry and Environmental Sciences", 2010

  - **Univ. Copenhagen (Denmark)**: "Forest and landscape Summer School", 2010

  - sept 2010, **FAO Tanzania** for local GIS managers!

Case studies

- **"Open Source Tools for Spatial Ecological Modeling"** (spatial-ecology.net project)

  - **Giuseppe and Stefano** have learned to use the **FOSS4G COMPETITIVE ADVANTAGES for teach** and they have been achieving great success!

  - By using **GISVM** (GIS Virtual Machine) **as a teaching tool**, they offer students (Windows users) an **easy transition to Free Software** and the **freedom to take the full working environment of the course to run on their personal pc**, and thereby **making the continuation of self-learning easier**!

Future

- Future Education Workgroup plans:

  – To continue and improve the existing projects

  – To participate in more university events

  – To promote special courses for teachers

  – To collaborate more closely with "Ensino Livre" (Portuguese Association for "Free Education")

  – To always be open to suggestions from the community!

Thank you!

- All members of the OSGeo-PT Education workgroup, specially to the more active members: Adnilo Chande, Artur Gil, Nelson Silva…

- Stefano Casalegno & Giuseppe Amatulli