

**SIXTH FRAMEWORK PROGRAMME
PRIORITY 2
INFORMATION SOCIETY TECHNOLOGIES**



FLOSSWORLD

**Free/Libre and Open Source Software: Worldwide
Impact Study**



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REPORT

SECOND FLOSSWORLD WORKSHOP FOR THE LATIN AMERICAN REGION

Buenos Aires, November 30 – Dec 1, 2006

**Second FlossWorld Workshop for the Latin American Region Nov 30
– Dec 1, 2006**

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**Second FlossWorld Workshop for the Latin American Region Nov 30
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AGENDA

DAY 1- THURSDAY, 30 NOV 2006

09:00 –09:15 **RECEPTION**

09:15 - 09:40 **WELCOME AND INTRODUCTION**

Agenda and Workshop Organization

Norberto Torrera

Workshop Goals

Luís Casas Luengo

09: 40 –10:30 **INTRODUCTORY PRESENTATIONS: FUTURE EVOLUTION
OF THE IT SECTOR, AND OF FLOSS IN PARTICULAR, IN
THE REGION**

Moderator: Hernán Huergo

The Argentinean scenario

Verónica Robert

The Brazilian scenario

Mauricio Augusto Coelho

Q&A - Discussion

10:30 -11:30 **PANEL REVIEW OF FINDINGS AND RECOMMENDATIONS
OF WORKSHOP 1**

Panel: Luis Casas Luengo, Mauricio Augusto Coelho, Norberto Torrera,
Federico Heinz

Q&A - Discussion

11:30 – 11:50 **COFFEE BREAK**

11:50 - 13:30 **DISCUSSION ON SKILLS DEVELOPMENT
(FLOSSWORLD TRACK 1)**

Moderator: Norberto Torrera

13:30 - 14:45 **LUNCH**

14:45 – 16:30 **PRESENTATIONS AND DISCUSSION: GOVERNMENT AND
POLICY (FLOSSWORLD TRACK 3)**

Moderator: Hernán Huergo

**Government FLOSS policies in the Argentinean National
Public Administration**

Carlos Achiary

**Second FlossWorld Workshop for the Latin American Region Nov 30
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AGENDA

DAY 1- THURSDAY, 30 NOV 2006

Government FLOSS policies in Brazil

Mauricio Augusto Coelho

Q&A – Discussion

21:00

WELCOME DINNER AT USUARIA

**Second FlossWorld Workshop for the Latin American Region Nov 30
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AGENDA

DAY 2- FRIDAY, 1 DEC 2006

- 09:00 - 09:15 **RECEPTION**
- 09:15 – 11:15 **DISCUSSION: SOFTWARE DEVELOPMENT AND
PROJECTS (FLOSSWORLD TRACK 2)**
Moderator: Federico Heinz
- 11:15 - 11:30 **COFFEE BREAK**
- 11:30 – 13:30 **DISCUSSION: INTERNATIONAL COOPERATION AND
POLICY RECCOMENDATIONS**
Moderator: Hernán Huergo
- 13:30 - 14:45 **LUNCH**
- 14:45 - 16:45 **CONCLUSIONS AND PROPOSALS**
Moderators: Luis Casas Luengo, Norberto Torrera, Federico
Heinz
- Workshop evaluation
Recap of suggestions and recommendations
Future agenda
- 16:30 - 17:00 **CLOSING**
Norberto Torrera, Federico Heinz

Second FlossWorld Workshop for the Latin American Region Nov 30 – Dec 1, 2006

OVERVIEW

FLOSS situations in Argentina and Brazil are quite different and so are their priorities (in particular those regarding the role of their National Governments).

For **Argentina's Federal Government**, FLOSS is just one possible technology choice. Thus, no official policies making FLOSS a priority have been sanctioned and little leadership has been provided by the Government. FLOSS presence is significant at many local governments; nationwide, however, it's not large enough yet.

Accordingly, **Argentinean** attendees felt that top priority was that of gaining a stronger Government commitment to FLOSS, i.e., enacting essential legislation, providing effective political and technology leadership.

In **Brazil**, FLOSS is a national priority: key government policies have been sanctioned, "critical mass" in presence / penetration has been reached. Leadership is provided by Government, political forces, the education sector.

The **Brazilian** priorities, different from those in Argentina, aim at the consolidation of their national experience and insertion in global FLOSS activities.

Also, given the large majority of participants from Argentina, many issues (example: Government role) were discussed mainly from the Argentinean perspective, with Brazil attendees sharing their experiences on the matter. A significant area of common interest was that of regional and international cooperation.

Reference framework for the second FLOSSWorld workshop were the conclusions and findings of the previous one, in which the following issues were considered top priority (particularly by participants from Argentina):

- Policies and Government role.
- Coordination and leadership for the FLOSS movement.
- Dissemination required to promote growth.
- Need for better data to enable sound policy-making, strategy and action planning.
- Skills development, and the role of the education system in particular.
- Opportunities provided by domestic and international cooperation

Regarding **Government and Policy** issues, Argentinean participants proposed to work together in the dissemination and lobby actions intended for Government and political parties. A more institutionalized communication with Government officials will be promoted through liaison desks that will interact with key public agencies, providing assessments, drafts on policy initiatives, etc.

OVERVIEW

With reference to the **Education Sector**, nine recommendations were made, intended to:

- Lessen the brain drain affecting HEI's
- Train teachers at all levels of the education system in FLOSS usage / development.
- Promote special training programs for the developer's community.
- Develop a FLOSS skills and competences requirement concept, taking into account regional and global needs.
- Develop a FLOSS curriculum proposal
- Bring about a greater participation in international FLOSS R+D programs.

Regarding the need for **strategic FLOSS data / information gathering**, an evaluation of a **FLOSS observatory** will be made. The observatory would provide continuity to some of the FLOSSWorld activities.

Initially, the observatory would have local reach; at a later stage, it could evolve to become a regional entity. (Eventually, the possibility of an international endeavor involving FLOSSWorld partners and with EU support could also be discussed.)

Initiatives or recommendations reviewed during the workshop that could be realized as **Cooperation Projects** include:

- Local projects (i.e.: teacher training)
- Regional projects (i.e.: Brazilian- Argentinean software development, development of a regional FLOSS curriculum)
- International projects (i.e.: FLOSS observatory – eventually under the EU's 7th Framework Program for Research)

A **post-FLOSSWorld agenda** was discussed with a main goal in mind: the setting up of an organization that will allow to continue the work started through FLOSSWorld. Proposed activities:

- Creation of a FLOSS interest group, initially formed by the workshop participants.
- In the short term, start dissemination / lobby actions with the Argentinean Federal Government (liaison desk), conduct initial evaluation of observatory project.

GOALS AND PRIORITIES

GOALS:

1. Review findings and recommendations of Workshop 1.
2. Review available survey results (presently being analyzed)
3. Evaluate the FLOSS situation in Argentina and Brazil (also from the political standpoint) aiming at what can be considered FLOSSWorld's main goal: that of identifying new areas of cooperation at local and regional levels, as well as at international level with EU or EU member country support and /or mediation.

PRIORITIES

Foster continuity of the FLOSSWorld effort. To this end, identify courses of action based on the project's current activities.

Rather than broad, general recommendations, generate very concrete proposals, ideally geared to specific FLOSS stakeholder sectors, that can evolve as greater experience is gained. Cooperation in software development for the region can bring about new market niches of interest for all partners.

(Luis Casas Luengo).

**GOVERNMENT, POLICIES AND LEADERSHIP
VIEWPOINTS AND EXPERIENCES**

GOVERNMENT AND FLOSS IN BRAZIL AND ARGENTINA (SUMMARY)

Argentina: No official policies, FLOSS is only one possible choice for the public sector. Stakeholders acting independently, with little coordination – cooperation. No clear leadership and /or driving forces. FLOSS presence is growing, but still not significant.

(WS1)

Brazil: FLOSS is a national priority; key government policies have been enacted, “critical mass” in presence / penetration has been reached. Strong leadership and impulse to the FLOSS movement is provided by Government, political forces, the education sector.

(WS1)

Brazil’s present federal administration has a solid, well-informed and sustained policy favoring FLOSS, that includes the existence of an e-government executive committee with normative authority (i.e., whose directives are mandatory), while the Argentinean administration may support FLOSS on occasion, but many of its actions don’t reflect such a standpoint.

(Federico Heinz)

Example: in Brazil the entity that operates at the core of the digital signature certification system is state-owned. In Argentina, the discussion leans toward appointing a private firm to perform the task, instead of nurturing, within the same State, the necessary know-how to carry it out. This is what is spread from the central government to local governments, which in turn see themselves compelled to proceed accordingly.

(Federico Heinz)

Despite the situation at the national level, Argentina does make progress at local and provincial levels.

(Raúl Kantor)

**GOVERNMENT, POLICIES AND LEADERSHIP
VIEWPOINTS AND EXPERIENCES**

BRAZIL - THE EXPERIENCE DURING LULA'S GOVERNMENT

Dimension of the problem

Before 2003, the presence of FLOSS was low. Only a few universities and some administrations at local or state (provincial) levels worked with FLOSS.

Change isn't simple in a country with a federal government, 27 states and 5500 municipalities, presenting cultural diversity and great economic differences. It was in this complex context that a new public policy at national level was to be envisioned.

Constraints on the emergence of FLOSS in the Brazilian public administration

- The Brazilian Federal Government has a complicated organizational structure, with responsibilities at times very spread, and some other times overlapping. This is also true for areas responsible for IT.
- There was not a single unique agency centralizing the definition of policies in practice.
- A normative framework as well as a federal law prescribing any preference or regulation in terms of SW are still missing. However, an e-government executive committee with normative authority does now exist.

"Learned lessons" in the process of massive migration toward FLOSS

- For those familiar with IT tools, migration was not traumatic, but there were serious problems for the conventional user: overcoming them took a long period of time.
- Resistance to change is a very important point to be worked on and overcome; otherwise, the migration process loses momentum. The incorporation of IT as an end in itself is not possible: it is necessary to count on users committed with the project, and for that they must be made aware of the reasons and objectives of the migration and trained properly.
- There was a shortage of specialists to run the migration process at the time they were actually needed.

GOVERNMENT, POLICIES AND LEADERSHIP

VIEWPOINTS AND EXPERIENCES

- Some ministries felt invaded. Newly implemented technologies in some agencies generated conflict with the ones that didn't have them.
- Though much will to change was on the table, policy planning and an action plan were still missing. The emerging difficulties triggered the discussion of strategic planning for the years 2002-2005, through which the need for leadership from the Brazilian State became clear.

GOVERNMENT, POLICIES AND LEADERSHIP VIEWPOINTS AND EXPERIENCES

BRAZIL – GOVERNMENT POLICIES

The program of the Brazilian government for 2007-2010 establishes a public technology policy defining open source software as priority and unquestionably assigning leadership to the State.

State technology policy

The growth of FLOSS was due to the enactment of a government technology policy prioritizing FLOSS as a strategic option aimed at achieving:

Costs reduction

Independence from suppliers and increase of market competition

In Brazil, the fact that government agencies protect one or other preferred supplier, establishing somewhat of a monopoly, is common currency. The incorporation of FLOSS helps to increase the number of bidders in tender processes, which in turn tends to bring down the costs of the services provided.

Job generation

IT firms that offer services to the federal government create job positions for Brazilian professionals specialized in FLOSS, and invest in their training and qualification.

Development of Brazil's know-how and intelligence on FLOSS

Brazilian firms in the FLOSS industry, besides offering services to the State, they export their services. This way, the balance of payments is not only benefited by the savings from avoiding the payment of royalties, but also by the foreign currency incoming through the payment for these services.

Security and transparency

Full availability of source codes makes it simpler to ensure that a particular software does what it is supposed to - an important security factor for critical systems such as those administered by the State. It also helps account for the output of the funds invested on IT.

The five roles of the State in the strategic plan

1. Government as executor

Government uses its purchasing power to buy preferably FLOSS solutions.

GOVERNMENT, POLICIES AND LEADERSHIP VIEWPOINTS AND EXPERIENCES

It will move the market to produce these solutions.

In essence, the Federal Government is helping the completion of the servers and workstations' migration to FLOSS products. The task has reached an advanced point: practically all government agencies have an ongoing migration plan or internal technology policy related to it.

2. Government as developer

Government develops many of the FLOSS applications that it needs, and makes them available for the community. Within the government there are teams of specialists and public firms involved in data processing. Many of these developments carry out e-government functionalities.

BRAZIL – GOVERNMENT POLICIES (CONT...)

3. Government as inducer

FLOSS isn't necessarily free, it is merely a way to do business. Licenses aren't charged, but the services are. The promotion of open source software requires the mobilization of funds.

IT spending of the Brazilian Public Sector accounts for 40% of the country's total (USD 2000 million). Thus, the Brazilian Government can wield tremendous influence in the promotion of FLOSS through:

- Hiring of FLOSS services (public purchases)
- Fostering and financing FLOSS projects so to encourage IT firms to match their ways of doing business with those of FLOSS.
- Digital inclusion projects ("A computer for everyone", "Casa Brasil").

4. Government as regulator

Government plays a role at ruling formats, specifications, preferences and public policies. It must also establish a regulatory framework in which firms can feel safe in their contractual relationship with the State, without any question arising in regards to the legitimacy of their free access to the code developed through public funds.

5. Government as training agent

It is aimed at making users FLOSS-aware and at training them in the use of FLOSS tools. (Many difficulties have come up here.) Examples of training and dissemination projects: a) the CDTK - Center for the Dissemination of Technology and Knowledge, a distance education project on FLOSS for public servers and b) Casa Brasil: a community facility, to be used for free and without access restrictions, that works as a center for technology literacy teaching, dissemination of science, culture and art and that seeks to generate social inclusion and broaden citizenship.

GOVERNMENT, POLICIES AND LEADERSHIP VIEWPOINTS AND EXPERIENCES

Some initiatives of the Brazilian Government

- Financing FLOSS-based municipal projects
- Promotion and financing of private FLOSS projects
- Professionalization of FLOSS services suppliers
- Consortia promotion (consortia formed by governments, public entities, the academic field, the FLOSS communities, firms or firms conglomerates, which join efforts to develop software and provide guarantee for their products) both at domestic and international level (example: the ObjectWeb Consortium)
- Training and dissemination projects such as the Technology and Knowledge Dissemination Center (TKDC) and Casa Brasil, a free community facility that operates as a center for technology literacy teaching, dissemination of science, culture and art and that seeks to generate social inclusion and broaden citizenship. The units of Casa Brasil are located in low-income communities with the purpose of reducing social inequality and provide critical inclusion of those communities into the information society.

The role of the private sector

The country's IT suppliers play a key role within the vision of the future of IT evolution in FLOSS, and are changing their way of doing business into not gaining profits from the sale of licenses but from the provision of services. There are several companies applying this model, which proves it can work.

BRAZIL – GOVERNMENT POLICIES (CONT...)

Cooperation in the region

Every federal institution is in charge of the development of regional cooperation projects in the fields under its authority.

In the IT arena, there are cooperation agreements in the public keys area as well as in the FLOSS area, with Argentina (together with the Argentinean National Information Technology Office), Venezuela, Angola, Uruguay, Cuba, Congo, Timor.

They are not about policy-making but agreements regarding lines of work. From then on, every country handles itself accordingly to its abilities and possibilities.

**GOVERNMENT, POLICIES AND LEADERSHIP
VIEWPOINTS AND EXPERIENCES**

RELATION WITH THE POLITICAL POWER

Brazil – Broad partisan support

It is necessary to inform and then obtain partisan support in order to promote FLOSS. The Labor Party (PT) has its own IT professional teams defending this way of thinking, but within the same party, there is opposition (for example, a few years ago, the party purchased computers with Windows already installed).

Although the process of FLOSS took its first impulse at the executive power, it is very important to help FLOSS policy become a state policy widely accepted by all parties.

Argentina –Limited support from Government

Within the political power there is great lack of knowledge on FLOSS and its political importance. In fact, many of the difficulties that take place can be explained simply by lack of awareness:

- No Argentinean political party, in its platform, makes any reference, in any way, to FLOSS (nor, for that matter, to IT).
- Lack of support to FLOSS among Government officials usually does not come from their own particular interest favoring proprietary software but from being unaware of or uninformed about FLOSS. Those who are informed and trained in FLOSS understand perfectly the concept and its importance.
(Fernando Pisani, Bubi González)

This lack of knowledge may have negative effects beyond the FLOSS realm: it can result in laws bringing wrong regulation. Two examples:

- In five Argentinean provinces it is illegal to work in the IT industry if one doesn't have at least a bachelor degree specifically related to it, as well as a license issued by a professional association, thus creating an artificial barrier to who can contribute to the creation of software.
- In Congress, a draft bill of law under discussion, penalizing felonies committed by using IT, would penalize with jail the distribution of any program that can be used to erase a file.

It would be convenient to train public decision-makers on FLOSS, maybe Congress people. This cannot be done by simple setting up informational web sites; instead, ways to offer well-structured explanations to legislators have to be found. This can be thought of as part of a set of training projects which could receive support from the EU or the UN Nations Development Projects.

**GOVERNMENT, POLICIES AND LEADERSHIP
VIEWPOINTS AND EXPERIENCES**

(Federico Heinz)

Argentina - Opposition to FLOSS within Government

In looking for Government support to FLOSS, there is not only need to get legislation enacted or have FLOSS adoption plans developed, but also to deal with the fact that in some strategic areas of the Federal Government, such as Education, the present direction, it is well-known, goes against FLOSS.

(Beatriz Busaniche)

RELATION WITH THE POLITICAL POWER (CONT...)

Argentina – FLOSS community not knowledgeable of the government sector

Within the community, there aren't many people who know how the government works. Their contribution to the development of legislation simply ends at stating technical concepts on FLOSS topics.

(Salvador Tropea)

Risks deriving from political changes

If a party became government and took up the cause of FLOSS I have no doubt that as soon as it lost a new election to another party, the next government would first demolish open source software before anything else just because it was the cause of its predecessor.

(Salvador Tropea)

It is not convenient to use party politics, since it automatically generates a reactive effect.

(Bubi González)

After a political change, one takes steps back depending on what was done by the previous government. For example, massive computerization of the educational system, as it was done in Extremadura, is irreversible. It is not possible to eradicate 70.000 personal computers.

(Luis Casas Luengo)

**GOVERNMENT, POLICIES AND LEADERSHIP
VIEWPOINTS AND EXPERIENCES**

LEADERSHIP FOR FLOSS

Brazil – Leadership from the Federal Government

Without the leadership of the federal government, with its strong purchasing power and its influence on the local governments (example: the systems of the national public administration interact with the systems of the local administrations inducing them to adapt to the federal technology standards), it is hard to break with old paradigms, change the market. The existence of a stronger force is necessary, to promote this breaking point, this transition.

Before Lula's government, there were some initiatives meaning to adopt FLOSS, in municipalities, in some sectors in the state, in universities. If leaderships are local, goals will be achieved, but may not be enough to cause the required change.

Following a “from local to national” path, Brazil was unsuccessful.

(Mauricio Coelho)

Argentina – Rosario: The need for leadership from the Federal Government

Some experiences at the Municipality of Rosario, which is carrying out a massive migration to FLOSS, lead to conclusions similar to those drawn out from the Brazilian case.

There have been moments in which the migration undeniably required the support of the national government (example: to implement projects linked to national IT services or regulations such as digital signature systems) or in which the migration was hindered by the need to adapt to guidelines from the National Public Administration (example: having to give up FLOSS applications in order to be able to interact with national systems).

Additionally, without national leadership it is harder to share systems and resources with the national administration and with other provincial and municipal entities.

(Patricia Giardini)

Extremadura – Impulse coming from regional administrations

In Spain, the experience was different: it was the impulse given by the local and regional administrations what, in the long run, lead the central / federal

**GOVERNMENT, POLICIES AND LEADERSHIP
VIEWPOINTS AND EXPERIENCES**

government to pay attention and provide support to the cause.

According to the Spanish experience, central governments support FLOSS as long as there are local or provincial entities promoting it previously. Then, the key role is not that of the central government but that of the decentralized administrations persuading the former to act.

(Luis Casas Luengo)

**GOVERNMENT, POLICIES AND LEADERSHIP
RECOMMENDATIONS AND PROPOSALS**

Priorities

For participants from **Argentina**, top priority at the present stage of the FLOSS evolution must be to engage the State strongly into enacting key policies and assuming leadership in promoting FLOSS.

Brazil, on the other hand, is already working on the improvement of its national experience and on its involvement within the global FLOSS arena.
(WS1-WS2)

Recommendations / proposals (for Argentina)

- 1. Develop a multiple strategy dealing with dissemination, consulting and lobbying within the ground of the State leading to:**
 - **Start a fluent communication dynamic among sectors involved with FLOSS and the State at all levels of government (federal, provincial, municipal), extending this action to political parties.**
 - **Build FLOSS presence and critical mass by its continuing induction at the local level, whenever a favorable social, political and economical environment is found.**
 - **Promote the role of the education sector as a factor of growth and evolution for FLOSS.**
- 2. Develop training programmes / FLOSS and IT in general knowledge, for legislators, public servers with decision-making responsibilities within the State.**

Aspects to be taken into account for the completion of the proposal:

- It must be a task coordinated by all the parties involved.
- Disseminate FLOSS specially among decision-makers within the State (for example, the Congress).
(Federico Heinz)
- Provide proposals that can be used as reference or basis for the formulation of policies.
(Fernando Pisani)

**GOVERNMENT, POLICIES AND LEADERSHIP
RECOMMENDATIONS AND PROPOSALS**

- Present recommendations for government actions, eventually through NGOs such as USUARIA.
(Bubi González)
- Communicate with and train political parties on FLOSS so it is included in their platforms.
(Bubi González)
- Promote matching dissemination policies: combine “top-down” policies with “bottom-up” ones.
Even though setting standards and establishing the use of FLOSS in the Public Administration are very important for FLOSS dissemination, serious constraints could be faced in practice due to the lack of training of FLOSS users and IT workers. Ideal goal should be then to achieve a higher level of FLOSS adoption through training.
(Verónica Robert)
- OSS developers and users organizations such as LUGs have a long history in the matter and are powerful cultural change engines within the “bottom-up” strategies framework.
(Antonio Lenton)
- The task of making users aware of FLOSS should be kept brief and simple. The concepts of FLOSS can be usually understood through a brief presentation: they are socially correct projects, economically profitable and it is not necessary to go into technical details to understand them.
(Bubi González, Federico Heinz)

3. Other suggestions / specific recommendations

- Use the opportunities for the introduction of FLOSS provided by budget constraints. Consider the possibility of using the education sector as the starting point for policy-making for the promotion of FLOSS.
(WS1)
- Place FLOSS in equal standing with proprietary software when interacting with citizens. Example: allow users to use FLOSS if they wish to do so; do not ask them to use exclusively proprietary software when dealing with the Government (say, “submit request only in Word”).
(WS1)

GOVERNMENT, POLICIES AND LEADERSHIP

RECOMMENDATIONS AND PROPOSALS

- Pass regulations and guidelines to stimulate sharing of FLOSS applications developed by the Public Sector.
(WS1)
- Improve horizontal communication within the Public Sector and with other FLOSS stakeholders.
Remarks from Nov ' 05 Workshop: A National FLOSS network being set up by the ONTI is a step in this direction.
(WS1)
- Support the business sector in practical ways, such as providing a simple and less onerous tax and legal environment for FLOSS developers turned entrepreneurs.
(WS1)

SKILLS DEVELOPMENT

VIEWPOINTS AND EXPERIENCES

THE EDUCATION SYSTEM AND FLOSS IN BRAZIL AND ARGENTINA

FLOSS presence

FLOSS presence in Argentinean HEI's is lower than in their Brazilian counterparts. Nevertheless, in both countries essential definitions are still lacking (e.g., in both countries there is no agreement so far as to what a basic FLOSS curricula should be, the "brain drain" jeopardizes project realization. (WS1)

Curricula

Regional skills

There is serious need to develop "regional competences" (this meaning both those needed for the region to be able to keep pace with FLOSS evolution worldwide, as well as the ones needed to meet region-specific requirements). (WS1)

Academic and extra-academic curricula

Universities should focus on "essentials" of each study discipline (as is, for example, software development for IT studies) leaving out more operational training topics such as teaching how to use a given software application. (WS1)

Business training

FLOSS should also be discussed from a business standpoint in business - related careers. This should be of aid in introducing it into the business world. (WS1)

FLOSS curricula in the region

In Brazil, some universities are introducing FLOSS - based studies leading to an intermediate degree (example Rio de Janeiro: a 2 - year study track). Some others are offering one- semester specialization courses. (WS1)

Formal education for the developer community

The more pressing need mentioned by Brazilian and Argentinean attendees is that of complementing community work experience with a broader educational basis.

State of the art FLOSS development demands IT specialists also possessing an increasingly comprehensive education (at least part of it gained via HEIs) (WS1)

SKILLS DEVELOPMENT

VIEWPOINTS AND EXPERIENCES

FLOSS in secondary level education

Secondary level institutions such as vocational technical training schools could play a significant role in FLOSS education aimed at the intermediate level technician.

(WS1)

THE EDUCATION SYSTEM AND FLOSS IN BRAZIL AND ARGENTINA (CONT...)

Brain drain

A possible solution to the growing "brain drain" HEI's are having to cope with is to expand technology transfer activities to include the creation of FLOSS spin-offs that could operate as partners and could be staffed with FLOSS personnel from universities. (There is a successful experience in Brazil.)

(WS1)

Dissemination in the education sector

Dissemination among teachers and students is more important than an established curricula

In order to help FLOSS gain presence and visibility, a strong presence of FLOSS in the curricula is probably not as important as finding ways to make the teaching staff and students acquainted with FLOSS, and have them use its products and tools.

(WS1)

Success factors for the introduction of FLOSS in the education system: gain support of those in the classroom - teachers and students. In addition, a distinct backing from government is essential.

(WS1)

Bottom-up dissemination allows the reach of certain specific results easily

Initially, FLOSS dissemination in the UNLP was first attempted seeking the support of the authorities: all of it never went beyond the stage of possibility. Later on, the work was directly oriented to school teachers in the region, first with seven schools and then the number kept on growing. With small specific projects progress can be made. It is also important to ally with groups making

SKILLS DEVELOPMENT

VIEWPOINTS AND EXPERIENCES

similar efforts that you may not know of.
(Patricia Banchoff)

Bottom-up and top-down strategies complement each other. Bottom-up alone doesn't work.
(Anthony Lenton)

FLOSS in school management

FLOSS can be fundamental for school management. Schools could use FLOSS tools to make their own websites for content development, discussion lists, contact lists among the teachers, etc. This would have a massive impact.
(Fernando Pisani)

SKILLS DEVELOPMENT

RECOMMENDATIONS AND PROPOSALS

Dissemination

1. FLOSS dissemination in the education system through printed material

Within the elementary education system, the most effective path to dissemination is probably the periodic distribution of few-pages-long paper magazines, destined to teachers and students through which activities, FLOSS solutions, etc. would be informed.

Possibility: a very didactic magazine (as if it were made for a distance education course), including separated information for three different types of readers: beginner level, intermediate level and IT level, with an additional digital magazine on the side.

The costs of distribution can be minimized easily reaching agreements with the Ministries of Education: it is also possible to obtain financing to cover costs (paper, printing, etc.).

(Fernando Pisani)

2. Recommendations for OLPC (“One Laptop per Child”) project development

A million laptops will soon be distributed among Argentinean schoolchildren.

Proposal: Evaluate the convenience of making recommendations to the education system, government and political parties and if they are accepted, develop them, as a joint effort of all organizations represented in the workshop. This is a challenge and an opportunity for FLOSS development.
(Fernando Pisani)

Human resources in the education sector

3. Launch initiatives geared at coping with the brain drain (example: creation of FLOSS spin-offs, as mentioned above).

4. Provide for teacher training in FLOSS, as a way of bringing FLOSS tools into the classroom. Consider tertiary and secondary level institutions.

Curricula

5. Develop long-term local and regional skills development requirements proposals for developers and users. (Joint work of all FLOSS sectors.)

6. Joint Brazilian - Argentinean appraisal of FLOSS education curricula experiences in Brazil, as a basis for curricula recommendations.

SKILLS DEVELOPMENT

RECOMMENDATIONS AND PROPOSALS

- 7. Develop a FLOSS education concept for the whole of the education system, including tertiary and secondary levels.**
- 8. Develop curricula / education programs geared to the developer community, including secondary skills development (e.g.: insight into licensing issues, or training in business management).**

Cooperation

- 9. Strive for highest possible participation in regional / international FLOSS-related research (e.g.: 1. metrics, productivity, efficiency, security, productivity; 2. innovation, organizational and business studies, 3. policies, 4. social and economic impact).**

THE NEED FOR STRATEGIC INFORMATION VIEWPOINTS AND EXPERIENCES

The **lack of up-to-date information** on what is happening in the country in terms of FLOSS can make it difficult or even prevent the formulation of policies, strategies and soundly-based action plans, especially when it comes to technical and economic aspects.

Depending on the situation of FLOSS in the region or country to be analyzed, the phenomenon may be described at different levels of complexity given the interrelations among its actors and key variables:

Extremadura – Description models for FLOSS phenomenon

The experience of FLOSS in Extremadura is described as a phenomenon at three levels:

The **ecosystem**, a metaphorical description of the total FLOSS system in Extremadura with all its interrelations, is the most global and most complex level of interrelations.

The “natural space” (OSS) must be taken care of and for that it is necessary to know how its numerous variables work. Example: how does the law influence it, how is the training provided at universities, or at the companies that begin to be part of the ecosystem. It is also important to know how these companies interact with each other, or how it would be convenient that they did in order to help the ecosystem to be self-sustained over time.

Business clusters are at the second level. Clusters generate common business opportunities for all its associated companies. Each one of its members keeps its own identity, but they all share the same joint platform over which they do business, and even lobby before third entities that can influence their business.

Observatories are at the third level – the lowest one- and aim mainly at monitoring variables and key indicators of the FLOSS phenomenon (example: its level of penetration in all sectors of society).

When establishing the reach of the proposal, it is convenient to consider the level of maturity of the bonds linking the potential participants.

(Luis Casas Luengo)

THE NEED FOR STRATEGIC INFORMATION RECOMMENDATIONS AND PROPOSALS

Argentinean participants agree that project goal should be that of starting up an **observatory**, initially with domestic reach. Additionally, in the scenario of a regional project **Brazil-Argentina** the figure of an **observatory** can be drawn out, sharing:

Objectives proposed for the observatory

- Monitoring FLOSS situation
- Communication channel among companies, educational institutions, community
- Common website, government, mailing list, news
- Self-sustainability in the middle term

Project scope – Complementing FLOSSWorld

Initial concept

At first, aim at developing a local concept in order to evaluate if what it is proposed makes sense and or adds something to what already exists in the country. Validation with Brazilian counterparts so to assess the feasibility of a Brazil-Argentina observatory, and eventually a regional one, with both countries sharing common indicators and metrics.

Then, make contact with potential partners from other participating countries from FlossWorld project for an eventual extension of the idea. (To that end, prepare a version of the observatory concept in the English language).

Specification

Deliver an initial specification as soon as possible (when you achieve a first presentable product) with enough significance to be of interest to an EC support programme or other institutions.

The specification ought to include at least:

- The concept of an Argentina-Brazil-Europe observatory, to be undertaken over several stages, with increasing results in synchronization with the other partners.
- Sustainability provisions of what is being done in FLOSS, particularly with FLOSSWorld

Extension of the project with FlossWorld's support

The project could be enhanced, and cover not only Brazil, Argentina and Europe but also other countries within FlossWorld.
(Pop Ramsamy)

THE NEED FOR STRATEGIC INFORMATION RECOMMENDATIONS AND PROPOSALS

Suggested functionalities

FLOSS Monitoring

This involves monitoring:

- The demand and supply of FLOSS skills - have quantitative / qualitative data.
- FLOSS presence and impact on the private and public sectors, the education system, the economy (including the labor market), society.
- FLOSS performance in various sectors compared with proprietary software.
- Effectiveness, competitiveness and social or economic importance of FLOSS developments.
- Quality and productivity of FLOSS software development.
- Policies at local, national and regional levels.
- Skills development.
- Evolution of FLOSS development communities.
- Evolution of open standards and interoperability issues and policies.
- Interaction among key FLOSS stakeholders.
- Current and planned FLOSS projects (local projects, participation in global projects) .
- Sources for funding / support of FLOSS projects.
- FLOSS awareness among stakeholders and general public.
- Initiatives and resources aimed at bridging the digital gap.
- FLOSS resources available to organizations, Government, education sector (technical, financial, organizational).
- FLOSS knowledge resources available.
- Successful and failed FLOSS experiences.

Additional suggested functionalities:

- FLOSS applications catalogues.
- Common repository of FLOSS activities (news, events, etc.).

Observatory management

Neutral orientation

It would be constructive that the observatory worked within a neutral organization that gave it prestige (example: an academic institution, an NGO) so that it received greater support from society.
(Fernando Pisani, Roberto Allende)

Code of conduct

Establishing the basics for a code of conduct within the group is a pretty important element in terms of strengthening it: determining how a business or a

**THE NEED FOR STRATEGIC INFORMATION
RECOMMENDATIONS AND PROPOSALS**

project will be shared in case it comes up, how the information is going to be accessed, how opportunities resulting from teamwork are going to be shared, etc.

(Luis Casas Luengo)

Decentralized administration of repository

The participating organizations will be able to manage their own contribution of contents autonomously; there will be, however, a central coordination.

Project execution – Short-term tasks

a. Project work organization

b. Feasibility study

At start, it is advisable to focus on just one critical area, central to the project. The results from FLOSSWorld can give an idea of which this central area could be. (Example: if the results from FlossWorld pointed out that training was FLOSS's weakest point in Argentina and Brazil, then tackling this aspect should be dealt with first of all.)

(Luis Casas Luengo)

c. Submit the project to the EU or other entities seeking support and financing.

d. Develop and execute the project in stages, with realistic goals.

e. Define indicators and metrics (preferably, with regional reach).

f. Reach an agreement on a code of ethics for the use of information.

Proposal

Develop and validate a preliminary specification for a FLOSS observatory to be implemented stepwise with expanding reach (national, regional, international).

**Second FlossWorld Workshop for the Latin American Region Nov 30
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**THE NEED FOR STRATEGIC INFORMATION
RECOMMENDATIONS AND PROPOSALS**

**PROJECTS AND COOPERATION
VIEWPOINTS AND EXPERIENCES**

Argentina – Local sources for project financing

The Argentinean government has a two-hundred-and-sixty-million-peso budget for financing equipment and training in secondary schools that offer vocational technical training. It is open for recommendations regarding the use of these funds, whose appointment, obviously, requires special agreements among universities and these schools.

(Fernando Pisani)

Opportunities for cooperation within the Seventh Framework Programme for research and technological development of the EU

- FLOSS is currently a subject of interest within the EU. (In many cooperation projects in Latin America the UE is requiring preferential use of FLOSS.)
- It is recommended to make FLOSSWorld project sustainable over time and search for new possibilities within the Seventh Framework Programme for research and technological development of the EU, starting in 2007.
- IT is one of the priorities in the Program, which is meant to strengthen international cooperation (cooperation among European partners with partners from developing countries).

(Mario Caivano–García)

**PROJECTS AND COOPERATION
RECOMMENDATIONS AND PROPOSALS**

**COOPERATION PROJECT PROPOSALS MENTIONED IN THE
WORKSHOPS**

Cooperation at the regional level:

- Share experiences in the education sector (example: curricula and projects at HEI's).
- Share experiences in FLOSS business management.
- Promote contacts among FLOSS companies in both countries that could be encouraged.
- Discussion of a regional educational concept.
- Joint development projects in the Public Sector and Education.

**Cooperation within the framework of the EU's 7th, Program for the
Information Society:**

Policy:

- FLOSS Observatory. Monitoring of the local FLOSS realities. Continuation of FLOSSWorld.

Education Sector:

- International academic and research cooperation aimed at skills development (staff, students, society).
- Development of FLOSS related standards.
- Specific educational and administrative software projects.

Public sector:

- Development of standards and technical recommendations for FLOSS projects.

Business Sector:

- Assistance in setting up partnerships with EU firms.
- Assistance and training programs for FLOSS development SME's.

POST – FLOSSWORLD AGENDA

CONTINUITY OF FLOSSWORLD

1. FLOSS Interest Groups

To ensure continuity, a FLOSS interest group, made up of all workshop participants, will be started. Tasks for the short-term:

- Define the organization, norms, working methods and interaction rules.
- Define priorities among fields of action, objectives, goals (specially for the short-term), deadlines.

The creation of **FLOSS-related special interest groups** is also planned.

The first one: a Special Interest Group on Standards

There is little representation of FLOSS actors in standards development matters.

The collaboration of this issue group would bring benefits and constitute a positive coordination and leadership exercise.

(Fernando Pisani)

2. Contact with other regional groups

It would be enlightening to learn the conclusions that resulted from other regional workshops; they may have detected interesting subjects that we could have overlooked.

(Norberto Torrera)

3. Projects or initiatives for the short-term

Projects to be evaluated or started in the short term build on FLOSSWorld: they result from the conclusions of FLOSSWorld and /or are destined to update the information collected by it. Among them:

- The Observatory Project.
- Closer relation with Government (lobbying, “liaison desk” with ONTI’s FLOSS interest group).
- Lobbying activities in the education sector (federal and provincial ministries).
- Recommendations for the OLPC project.

REFERENCES, BIBLIOGRAPHY

CONTACT OFFICES WITH THE EUROPEAN COMMISSION

A contact office within the Secretariat of Science and Technology (SECYT) helps Argentinean organizations develop, together with European partners, project proposals requesting EU assistance.
(Mario Caivano-García)

The search for EU partners can be made through the SECYT website.
(Norberto Torrera)

PUBLICATIONS

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Report prepared by Horacio Borsani and reviewed by Norberto Torrera and Federico Heinz.

Second FlossWorld Workshop for the Latin American Region Nov 30 – Dec 1, 2006

APPENDIX PRESENTATIONS

LIST OF PRESENTATIONS

- **FLOSSWORLD REGIONAL CONFERENCE – Argentina & Brazil**
Luis Casas Luengo
- **FLOSS and Open Standards dissemination in the Argentine scenario**
Verónica Robert .
- **FLOSS and Open Standards dissemination in the Brazilian scenario**
Mauricio Augusto Coelho
- **Government FLOSS policies in the Argentine National Public Administration**
Carlos Achiary.
- **Government FLOSS policies in Brazil**
Mauricio Augusto Coelho
- **Alliance between ONG-Enterprise**
Roberto Allende
- **7th FLOSS Regional Journeys**
Antonio Lenton