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**Intergovernmental Council for the Information for All Programme
(Seventh session)**

UNESCO House, Paris (Fontenoy Building, Room XI)

2-3 April 2012

9.30 a.m. -12.30 p.m. and 2.30 p.m.-5.30 p.m.

Item 10 of the Provisional Agenda

Free and Open Source Software (FOSS)

As a follow up to the decision taken by the IFAP Council at its 5th session (IFAP-2008/COUNCIL.V/8) on the important role which free and open source software (FOSS) can play in enabling access to information and knowledge, this document provides an overview of the activities undertaken by the Secretariat in this respect and highlights the strengths and opportunities that FOSS brings within IFAP's priority areas, in particular information for development, information literacy and information accessibility. It also calls upon IFAP's Council to work closely with the Secretariat in the development of relevant IFAP projects.

The Council of the Information for All Programme at its fifth session (2008) recognized^{1,2} the significant role that Free and Open Source Software (FOSS) can make to operationalize the concept of inclusive Knowledge Societies and to attain the Millennium Development Goals. Accordingly, the Council, requested the Director-General to support the promotion of FOSS in all Member States^{3,4}.

This has been reflected in IFAP's strategic plan for 2008-2013⁵, notably within the scope of the "information accessibility" priority area.

In this respect, UNESCO's Secretariat has undertaken a series of activities to support the efforts of several regional groups and associations devoted to the promotion of FOSS, within the Organization's fields of competence. In addition to specific IFAP supported activities, such as the ICA-Atom⁶, during the last biennium attention was given to:

- assessing and advocating the use of FOSS in ICT in education policies, particularly addressing the use of FOSS for teaching and learning in education for people with disabilities⁷;
- providing Member States with localized tools and applications for technical and science education⁸;
- promoting the construction of regional open source alliances where these do not exist⁹; and
- fostering the exchange of experiences on ICTs and access to information, education and culture¹⁰.

At the 36th General Conference (November 2011), UNESCO/CI launched the OER Platform¹¹, which was developed with the FOSS-based Chisimba framework developed by the African Virtual Open Initiatives and Resources network (AVOIR), comprised of 11 African Universities. On the same occasion, a revamped UNESCO's [OpenTrainingPlatform.org](http://www.unesco.org/education/openplatform) site built with a FOSS content management system (Drupal) was launched.

The Secretariat has launched FOSS activities aimed to assist Member States in formulating enabling ICT in Education policies with a view to empower stakeholders to make better informed decisions in line with the principles endorsed by the IFAP Council at its 5th session, and to benefit from the possibilities offered by different software models "in order to increase

¹ http://www.unesco.org/new/fileadmin/MULTIMEDIA/HQ/CI/CI/pdf/ifap2008_council_open_source.pdf

² http://www.unesco.org/new/fileadmin/MULTIMEDIA/HQ/CI/CI/pdf/ifap2008_council_annex_open_source.pdf

³ <http://www.unesco.org/new/en/communication-and-information/access-to-knowledge/free-and-open-source-software-foss/>

⁴ The role of FOSS in socioeconomic development was also recalled in the UNESCO Recommendation concerning the Promotion and Use of Multilingualism and Universal Access to Cyberspace adopted by UNESCO's General Conference in 2003.

⁵ IFAP 2008-2013 strategic plan: <http://unesdoc.unesco.org/images/0016/001618/161860e.pdf>

⁶ Open Source archival description software : <http://ica-atom.org>

⁷ <http://www.unesco.org/new/en/communication-and-information/access-to-knowledge/access-for-people-with-disabilities/>

⁸ UNESCO Office in Rabat - Miftaah, a USB key toolkit comprising a set of free and open source software (FOSS) for Arabic users: http://portal.unesco.org/ci/en/ev.php-URL_ID=31408&URL_DO=DO_TOPIC&URL_SECTION=201.html

⁹ The UNESCO Office in Kabul organized the first-ever Regional Open Source Software Conference - Central Asia (ROSCCA) http://www.unesco.org/new/en/communication-and-information/resources/news-and-in-focus-articles/all-news/news/first_regional_open_source_software_conference_ended_in_kabul/

¹⁰ First International Congress on Free Culture (Quito, Ecuador) <http://congresoculturalibre.org/inicio>

¹¹ Open Educational Resources : <http://www.unesco.org/webworld/en/oer> ; Platform: www.oerplatform.org

competition, access by users, diversity of choice, and to enable all users to develop solutions which best meet their requirements". This work is an important contribution to IFAP's strategic priorities of information literacy and information accessibility.

Education is a clear example of the many areas where FOSS does and can play a significant role in addressing IFAP's priorities. UNESCO's Headquarters, Field Offices and Institutes¹² are heavily engaged in international initiatives such as the development of comprehensive national teacher ICT competency policies (ICT-CFT¹³), the identification and measurement of key conditions for ICTs to reinforce educational outcomes¹⁴, and providing support to the recently adopted strategy for the promotion of Open Access to scientific information and research¹⁵.

Complementing and building on this work, the Secretariat has:

- initiated a review of the deployment of FOSS at the primary and secondary school level. In particular it sought to explore the circumstances, policies, and challenges around these deployments and to identify and share best practices and that could serve to inform the work of decision-makers, as well as national and regional educational institutions. This study which focuses on experiences in Africa has just been completed and its first version is annexed to this document. While identifying several challenges to the deployment of FOSS in African schools, such as inadequate resources and infrastructure (e.g, Internet access, and power supply), lack of awareness about FOSS, absence of transparent procurement policies, lack of technical support, and shortage of adequately trained human resources, the study also identified encouraging developments and indicated that more countries are developing and interested in creating policies to enable informed software choices.
- at the tertiary level, UNESCO is promoting the concept of Open Learning Centres, which, through the adoption of open technologies (FOSS) and content (OER, OA), can empower educational institutions and provide strategic opportunities for Member States to improve access to and the quality of education. The learning and experience gained from this initiative will provide a platform for facilitating policy dialogue, knowledge sharing and capacity building. As a first step towards the development of this model, a workshop was organized in 2011 by UNESCO and the University of Dar es Salaam in Tanzania¹⁶. Along these lines, UNESCO is currently assisting universities in the West African Economic and Monetary Union (ECOWAS/UEMOA), within the framework of their LMD¹⁷ reform projects¹⁸. The beneficiary countries are: Benin, Burkina Faso, Cote d'Ivoire, Guinea Bissau, Niger, Mali, Senegal and Togo.

¹² Notably, the Institute for Information Technologies in Education - IITE <http://iite.unesco.org>

¹³ UNESCO ICT Competency Framework for Teachers : <http://unesdoc.unesco.org/images/0021/002134/213475e.pdf>

¹⁴ UNESCO Institute for Statistics : Guide to Measuring Information and Communication Technologies (ICT) in Education: <http://www.uis.unesco.org/Communication/Pages/ict-education.aspx>

¹⁵ UNESCO Open Access Strategy: <http://www.unesco.org/new/fileadmin/MULTIMEDIA/HQ/CI/CI/images/GOAP/OAF2011/213342e.pdf>

¹⁶ Open Learning Centre Workshop, Tanzania http://portal.unesco.org/ci/en/ev.php-URL_ID=31452&URL_DO=DO_TOPIC&URL_SECTION=201.html

¹⁷ LMD stands for : License-Maitrise-Doctorat

¹⁸ http://portal.unesco.org/ci/en/ev.php-URL_ID=31234&URL_DO=DO_TOPIC&URL_SECTION=201.html

To address the Organization's gender priority, UNESCO has launched in 2011 an online community on gender equality in FOSS¹⁹. Even though FOSS's innovative approach has brought considerable success, most research attention is given to aspects related to software code and licensing. The handful of studies addressing gender issues reveals a consistent pattern: women do not play a role in FOSS. The aspect of gender-balance issue is often ignored, muted or even marginalized. Reports²⁰ also reveal that not only are the needs of female users not consulted or respected, but that female programmers are often rejected by the software labor market. UNESCO is addressing this issue, which is strictly linked to the under-representation of women in Science, Technology, Engineering and Mathematics (STEM), by fostering collaboration among FOSS communities and the many groups, institutions and individuals that at different levels have been raising this matter in the past decade.

Conclusion

This paper has briefly highlighted some of the Secretariat's activities in response to the IFAP Council's request to promote FOSS in Member States, and has underlined how these activities contribute directly or indirectly to IFAP's core priorities.

In line with the principles endorsed by IFAP Council at its 5th session, the potential of FOSS and its impact, especially in the developing world, can and should be harnessed by fostering cooperation among FOSS networks and by identifying and developing IFAP-specific projects at country level. To this end, IFAP could assist UNESCO in leveraging FOSS partnerships between public-private entities, by mobilizing its National IFAP Committees and other relevant national and international networks, such as UNESCO's Chairs, information professionals inter alia to plan and implement IFAP relevant projects, by for example developing FOSS toolkits to support freedom of information and the production of local content, including through mobile devices, or by collecting best practices on FOSS-enabled innovative ICTs initiatives for development.

In conclusion, the Secretariat calls upon Council Members to further explore the capability of the FOSS model to contribute to sustainable solutions within IFAP's priorities at large and to work with the Secretariat to develop relevant projects on Free and Open Source Software.

¹⁹ <http://www.wsis-community.org/>

²⁰ Levesque and Wilson, 2004; Public report on the consultation meeting on European perspectives for FLOSS, 2001