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Activity Report

- **August – September 2004**

Training on FOSS for IT Teachers of Universities
Experience of the open lectures on the advantages of FOSS allowed developing this initiative into a training seminars for IT teachers of universities in Tajikistan. Supported by OSI Tajikistan a group of experts including the fellow worked out a training curriculum for a -5-day-training on FOSS advantages in education with focus on IT teachers. Over 30 teachers of the regional universities completed two trainings in two key regional cities of the country. Each training was finalized by a roundtable discussion that gathered local education authorities and leaderships of universities to represent and discuss FOSS potential to develop local expertise, technological independence and skills development.

The UNCTAD Expert Meeting on Free and Open Source Software: Policy and Development Implications, September 22-24, 2004
Participation in the work of EM was a unique opportunity to learn experience of others from a wide range of views and discussions presented on advantages of FOSS from both developed and developing countries. The discussions were about the fundamental nature and principles of FOSS, its economical and financial implications (competition encouragement, creating new jobs by developing software industry), FOSS potential for development of local developers community and local content, its advantages for education and its potential in bridging digital divide for developing nations.

Spirit of Sharing
The spirit of sharing with other members of the community is an important factor in development of the knowledge society. The same as sharing information is vital for science teaching the spirit of sharing particularly in school system is vital for development of the local knowledge society. While talking to Dr. Stallman I told him that people of the country that I am representing can easily share what they have with others. His reaction was that free software nature meets perfectly this characteristics of them. Using free software might well feet with the local culture.

FOSS brought the new ways of developing and providing software – evolutionary and distributed way, namely by modularizing tasks and using very broad peer reviews. FOSS foster growth of a knowledge-based society and it is recognized as an important tool for serving and contributing to the achievements the MDGs and bridging the digital divide.

FOSS in Education Development

Many countries around the world in order to overcome digital divide starting from computer literacy courses in schools. Using FOSS as a platform for this purpose empower society to overcome this problem without falling into technological dependency. Since local people not only learn to become a customer but also they can learn how software works and how to change/adapt it to meet their local needs. People will become a customer of freedom (RS).

Another reason why FOSS is suitable for school education is that new paradigm of teacher changes its position from teacher to a trainer. So it is not required that teacher has to know everything rather he/she has to guide children how they can learn more. FOSS allows that. Schools are the place to share

knowledge (RS)

Technological Dependency
FOSS allows moving away from Technological Dependency and provides a level of transparency that governments needed and often requested from their technological suppliers. Availability of the source code provides the governments not to be dependent on a certain supplier and choose any other one whenever there is a need for the change. Moreover they as any other users are free to choose among various GNU/Linux distributives.

Software Patents
The issue of software patents. The differences between FOSS and software in the public domain. FOSS licenses were devised to use copyright to allow public-domain-style use while maintaining the same software unrestricted – something that public domain cannot do.

Software patent is a policy issue to consider. It is about whether people are allowed to develop software. If you want software development to develop in your country don't allow to patent the software. To establish a policy – in a schools and government department. (RS)

The Economics of FOSS – FOSS and Local IT Industry
FOSS is neither anti-business nor anti-commercial. FOSS allowed emergence of a new sub sector in IT industry – sub sector that produces and services code and programs. This encourages greater competition in the software sector and growth of the local IT industry. A good example proving this statement is that software industry was USA-based until free software movement started. All platform like MS-DOS, Unix, MacOS, OS/2 that were very popular in IT industry were produced in USA.

It was also highlighted that learning and utilization of FOSS do not require huge economic resources and advance skills. . "FOSS is part of the virtuous circle in which knowledge begot more knowledge". FOSS opens new opportunities and economic alternatives. Raising awareness on it is a significant achievement for developing countries or in other words FOSS promotes ICT diffusion in the society.

Beside this FOSS promotes competition development of the proprietary software industry, driving it to elaborate solutions that would enable localization of their products and services to take into account the differences existing in distinct markets.

FOSS Utilization Approaches
There was highlighted that "Optimism trap" should be avoided. Several categories were said to be visible among developing countries:
1. FOSS focused approaches
    - some of them actively supported FOSS
    - others had adopted policies aimed at levelling the playing field among the various models of software procurement and production
    - "hands – off" policy
2. FOSS used indirectly
    - explicit decision to buy local software, whether FOSS or proprietary
    - open standards usage requirement

Government Policies
Participants acknowledged that FOSS was not only a technical concept but also one with political, economic, and socio-cultural implications. Policy should not be the policy of neutrality, since this was a choice of social arrangements rather than a technical choice. There a few approaches in the governmental

policies:

- Government policies mandating the adoption of FOSS software in the public sector;
- Government policy should ensure technological neutrality vis-a-vis FOSS and the proprietary software;
- Public policy remove obstacles (for example some aspects of patent law) that could thwart the development of FOSS and its ability to compete with proprietary software products

Licensing and legal liability
Some additional risk need to be weighed when considering using FOSS in a business situation – licensing, support documentation, and legal liability. Wide spectrum of licenses:

- no restriction licenses;
- minor restrictions licenses (giving credit to the original author(s);
- imposing reciprocal obligations and/or contained patent clauses

A few Points of the Meeting:

- *Philosophy of Freedom. Better technology is secondary. What is important is Freedom. Chose the program that respects your freedom, not the program that is perfect. (Richard Stallman)*
- *Access to ICTs is not enough. The ability to create, to add value, that is important. (Spanish Prime Minister)*
- *Government Departments have responsibility to maintain their sovereignty.*
- *Before FOSS movement how many countries have been producing OS? Mac, UNIX, OS/2, DOS! All of them were coming from US. (Evan Leibovitch, LPI, Canada)*
- *FOSS is part of the virtuous circle in which knowledge begot more knowledge*
- *Mere adopters and users of technology or adapters and developers of technology! (Malaysian Prime Minister)*
- *I found out a way to make use of advantages of Copyright law. It doesn't mean that the weapon is good. I used it to give people freedom. (Richard Stallman)*

- **October 2004**

Regional Seminar on FOSS in Education of Central Asian countries, October 6, 2004
One of the first events in the regional level with focus on FOSS introduced to officials of education sector of the countries was very effective and just-in-time event. The participants of the seminar hada a chance to meet representatives of the Russian FOSS community – company AltLinux that develops FOSS applications in Russian language. AltLinux experts presented to audience principle of FOSS and its advantages for education development. The seminar ended up with discussion of the possible ways of implementation of FOSS in education system of the region's countries. ALT Linux – www.altlinux.org

Participants had also an opportunity to learn about specific features of OpenOffice.org usage and localization. The company also maintains OpenOffice.org update.

AltLinux: *Netscape after loosing the case with M$ opened the source code of Netscape communicator in 1998. This is another proof of disadvantages of closed software – code was not good! It took FOSS community over 4 years to improve this code and release Mozilla 1.0 in 2002. In 2003 an independent company – Mozilla foundation was founded.*

There was also introduced a virtual university Internet University of Information Technologies – http://www.intuit.ru. The Internet University of IT uses mainly free software and open standards in its

activity. All courseware are available in the Internet.

Fellow's conclusion in the meeting: There is at least one major thing in FOSS nature that suits very much culture of the region. Sharing is part of the culture of all nations in the region. And one of the FOSS principles is also sharing knowledge, codes, applications, skills. People in the region might be attracted by this fact and go for using FOSS. Moreover FOSS applications are not ideal. They require improvement. The process of improvement develops skills. Developed skills can easily adapt open technologies to meet local needs. Economics of the countries of the region have a good opportunity to have a new sector of IT industry – software adaptation/development/support sector, which creates new jobs. The most important here is the freedom of creativity. Every single user is a potential developer, since code development technologies are not luxury but are available to everyone. While with proprietary software every single user is a potential pirate.

One of the best example of FOSS is GNU/Linux distributives that besides many technical and technological advantages has one more important characteristics – it is democratic. GNU/Linux can work with different OS in any PC and does not violate users rights of choice.

An ethic side of using pirate software in education system of countries. It is believed in the East that a person that is brought up on the basis of pirated (unlicensed) commodity cannot be a good member of community.

Training on FOSS for IT Teachers of Dushanbe Universities
Preparatory process and conducting two 5-day-training seminars for IT teachers of the regional universities inspired the working group, part of which I am, to organize similar event for IT teachers of Dushanbe universities. This initiative was supported by the Academy of EdNet.

During 5 days 18 IT teachers had a chance to learn gradually FOSS applications. First they get acquitance with FOSS applications under proprietary platform, then learned advantages of LiveCD with GNU/Linux on board, completing the course with installation, configuration and using of FOSS applications under free software platform. Participants were supplied with materials containing two GNU/Linux distributives, manuals in Russian, and FOSS applications for MS Windows.

According to the working group tradition this event was also finalized with a roundtable discussion. Participants representing education field and Information Patent Centre under the Ministry of economics and trade that is focused on intellectual property issues supported the advantages of FOSS in education and combating software piracy in the country. A localized version of GNU/Linux Mandrake was introduced to them by local NGO Youth Opportunities, who is part of the localizators.

- **November 2004**

Open Standards and Libre Software in Government, *November 18, 2004. http://www.flosspols.org/conf*
NL, the Hague

FLOSSPOLS
The conference was organized as part of the FLOSSPOLS project, which conducts research on policy aspects of Free/Libre/Open Source Software. FLOSSPOLS – FLOSS Policy Support: EU IST/egov funded. Mar 2004 – Feb 2006. Initial respondents for the project were Ministries, NGOs, Universities, SMEs. http://flosspols.org/

FLOSS users prefer open standards, because of interoperability (compatibility with other software) (Rishab Ghosh).

Migration Guide
Developing similar to German Migration Guide (V1.0, May 2003) might be helpful for those organizations that want to migrate to FOSS. Munich and Berlin work now on Migration guide. The current work is on MG V2.0 that focuses on:

- XML based office interoperability
- Common TCO model for public sector
- Technology refresh
- Legal issues covering software patents. Intellectual properties and digital rights

MG can be downloaded from www.kbst.bund.de (translated in En)

FLOSS Usage
Sony Computer Entertainment Europe (SCEE) presented the role of OSS in Sony products:

- Desktop
- Development tools
- Libraries and tools used in R&D
    - many areas;
    - video, compression, networking

Japan has embraced Linux. Percent of GNU/Linux use in Japanese corporations is as follow:

- 35.5% - in 2001;
- 64.3% - in 2002;

Consumer Products where FOSS is used:

- BroadBand Navigator
    - Released in Japan only
    - Ran on Linux kernel – not usual minimal PS@ kernel
    - Playback of games and other media
        - Connectivity – download content
        - Existing infrastructure of Linux attractive
- Linux for PlayStation 2 (!)
    - 40 GB hard
    - Network
    - USB keyboard and mouse
    - Monitor cable
    - Linux DVDs
    - 149 Euro

Potential Legal Threats to FLOSS (Maureen O'Sullivan)
It is well known that FLOSS is licensed by one of the following categories:

1. by the Free Software Foundation
2. by the Open Source Initiative

There are different FOSS Licenses. Most FLOSS uses the GNU GPL. If BSD License is permissive and can privatise modifications and exclude others, GNU GPL is inclusive and cannot privatise published modifications.

All software licensed under GNU GPL depend on copyright and the contract (license agreement) sets out terms of use. The problem here is – neither law is harmonized internationally. One remedy is if GNU GPL is in every jurisdiction. But another problem rises here because of multiple GNU GPLs. Thus harmonization – a forking solution.

Other Threats:

1. FUD
2. vexatious lawsuits
3. use of patents
4. public opinion

Is there any International remedy? It might be a directive on FLOSS - International interdisciplinary legislation for FLOSS, called Free Software Act.

Some Points from the Hague Events:

- *It is not necessary to stand on shoulders of giants, we can stand on each others shoulders and be a giant. (Frans Nauta)*
- *Every FOSS licensee is a potential licenser*
- *Standards + Open Source + Interoperability = Freedom*
- *Technology as a tool rather than as a product. Freedom to use the tool of technologies is the core requirement to government.*
- *Freedom of Creativity consists of 4 freedoms:*
  - *0 – Freedom of use*
  - *1 – Freedom of distribution*
  - *2 – Freedom of modification/addition*
  - *3 – Freedom of share*

- **November - December 2004**

There was prepared a presentation on the FOSS conception and its benefit for countries like Tajikistan that presented in the national conference on the Information Resources of Tajikistan organized by the National Patent and Information Centre under the Ministry of Economics and Trade. The overview of presentation is published in a local magazine "Саноат ва Моликияти Зехни" (Industry and Intellectual Property).

Countries of the Region Visits

First visit in Tashkent (Uz), November 2004. Number of meetings were arranged prior arrival with representatives of ICT projects of the international organizations such as UNDP and IATP/IREX. Luckily my visit coincided with the openning presentation of software vendor – SoftLine in Uzbekistan.

UNDP DDI (Digital Development Initiative). DDI works with the Government of Uzbekistan with focus on e-government.

IATP/IREX.
IATP has established 17 information and resource centres across the country. All these centres are equipped with computers and proprietary software on-board. Coordinator of this project Pulat Tillabayev is the member of the local FOSS community that works on localization of GNU/Linux Mandrake.

IREX is implementing Schools on Line project funded by the US Department of State in Uzbekistan. Over 40 schools have access to Internet and developed over 80 websites. The project supplied all computers in the target schools with licensed Microsoft operating system. In order to develop websites schools use GIMP as a graphics application.

SOFTLINE
From now on SoftLine has its representation in Tashkent. SoftLine is a company based in the Russian

Federation that is now represented in Belorussia, Ukraine, Kazakhstan and Uzbekistan. The company's range of services includes Licensing, Training, Consulting (SAP, Microsoft). It is the largest partner of Microsoft in CIS. http://www.softline.ru

The company in Uzbekistan will focus on:
- Support of Mass media (journalists, authors) to fight piracy
- Market development in general
- Free of charge subscription to SoftLine-direct Uz catalogue
- Seminars free of charge
- Subscription to email news.

Representative of Softline highlighted the common problem in CIS countries – high level of software piracy. He pointed out the benefits of purchasing licensed software, particularly having support.

Akhadbek Dalimov – Manager of Microsoft Kazakhstan business development in Uzbekistan and Turkmenistan talked about Microsoft and SoftLine partnership. Microsoft that was founded in August 1975. So far it is represented in 85 countries with translated its products into 35 languages. Official opening of Microsoft office in Almaty happened on November 14, 2002. Currently the localization of MS operating system to Kazakh language is in the process. On my question what is the prerequisite to initiate localization and how much does it cost the answer was that customers demand in case of Kazakhstan. The cost is very high and Microsoft can cover that cost.

Mr. Samandar Atoev presented "Legal basis of licensed software usage" in Uzbekistan. Legislation of Uzbekistan in the Intellectual Property Rights consists of Civil Code, Law on Copyright and Neighbouring Rights. According to this legislation software is an object of copyright.

The Parliament of Uzbekistan ratified the Berne Convention on Copyright on August 7, 2004. According to this Convention foreign creative works has to be protected as the domestic works are done.

Visit in Almaty (Kz), December 2004.

KazRENA.
KazRENA as partner of NATO Science Programme works to develop the academic community networking and to promote new educational technologies in education system of country. KazRENA initiated creating regional association of NRENs. Association is not considering yet FOSS as a tool for development of content and skills in the country.

SoftLine. Softline works in Kazakhstan since May 2004. Main customers are private and public sectors organizations. Academic community is considered as a potential customer. The company distributes both proprietary and free open source software. Free software is mainly used to convince customers that proprietary software is better. Company also works to raise customers awareness on harm of software piracy.

Kazakhstan has also its developers. At least two software applications have been developed and is still supported by the owners. If Plus-Micro is application for accountant system, Luka (Лука) focuses on automatization of banking programs. There are also developed translators and office management (data transfer) applications.

Sergey Karpov, UNESCO.
IT cluster of UNESCO has been actively promoting FOSS in education sector and libraries in the region. Two FOSS applications Greenstone – electronic library, and Museolog has been developed supported by

UNESCO. Greenstone even is localized for Kazakh language.

IATP/IREX. IATP established 16 information resource centres in Kazakhstan. All the centres using licensed proprietary software. No plans to use FOSS. The project provides training for IT teachers and other teachers of schools. The goal is web content and web resource for schools development.

- **January 2005**

The local NGO Youth Opportunities introduced a localized version of GNU/Linux Mandrake for two secondary schools #34 and # 94 of Dushanbe.

Tajikistani e-Strategy was ratified by the President of Tajikistan on November 5, 2003. Implementation of the strategy must be coordinated by the ICT Panel. Since it is not established yet the coordination has been conducted by the Ministry of Communications, under which the state working group to develop action plan to implement strategy works. To highlight the potential of FOSS as an affordable and accessible tool for public sector organizations and education establishments of the country an article about it was published in the Ministry's newspaper – RadifInfo (Satellite Information).

- **February 2005 – March 2005**

Visit in Tashkent (Uzbekistan).

Department of the Software Applications. State Agency on Information and Communications. The Agency was established as a result of the Presidential Decree On Further Development of Computerization and Penetration of ICT from May 31, 2002. Representative of the Agency was very interesting in contacting FOSS community. Agency is supporting local developers and keeping contact with many small companies of developers. Representative of Agency's concern was what if GNU/Linux turn out into a proprietary product. His recommendation was meeting the Dean of IT faculty.

University of Information Technologies is also one of the outcomes of the Presidential Decree from May 31, 2002. Meeting with Dean of IT faculty. IT curriculum of university considers training FOSS too, but it is still in theory. Unlike IT curriculum of the secondary education is the same as in Tajikistan – MS products oriented. One of the problems that university feels with IT facilities is program compilers that are very costly under Microsoft platform. Learning about Kdevelop application under KDE, which contains over 10 different compilers for programming languages made the staff of the faculty interested in testing any distributives of Linux to test it. I shared a copy of GNU/Linux Mandrake 10 with them.

Representative of local developers. I was impressed to learn how mature is the developers community that is very well aware of FOSS advantages for development of applications. There are companies that won local tenders to supply software applications and one of the key argument to win was availability of the source code that allows GNU GPL. The representative believes that IT vendors and Fiscal state organizations are the most difficult players to convince on benefits of FOSS. Since it requires time, but today they both have good revenues from proprietary software distributions.

A local IT expert who actually helped me to learn more about local developers was not so optimistic as I am on FOSS penetration in this country too. He is convinced that formula of PC in this country is the same as in other countries of the region – Intel + MS Windows.

Visit in Almaty (Kazakhstan).

Parks of Information Technologies or so-called Technological Parks will be established across the country. There will be two types of those parks – national and regional. The difference between those types will be in creating tax incentives environment for the national technoparks that will be focused on

IT and biotechnology. Implementation of this project is coordinated by a Joint Stock Company Centre of Engineering and Technologies Transfer. The Ministry of Industry and Trade is supervising the project.

Creating the national operating system is one of the objectives of the project. According to Centre there will be $3 – 5 million US allocated to achieve this objective. The operating system will be developed on the basis of FOSS. One of the objectives is providing document exchange for the public organizations in Kazakh language.

There are 50% of secondary schools with Internet access in Kazakhstan and 95% of them have computer classes. Ministry of Education and Science is coordinating the localization of FreeBSD.

Kazakhstan has now has a localized version of MS Windows XP. Microsoft once again approved that it develops for rich countries.

- **April 2005**

FOSS Forum Russia
The experience of the Russian Federation FOSS community in promoting free software in education system of the country is worth to learn not only because it is much easier to be implemented in most of the countries of the region, but also it is a good example of a country rich with mineral resources that is interested in FOSS utilization, development, and localization. One of the discoveries that I made from Russian colleagues is that "locked does not mean secret". This was one of the main arguments of the FOSS community in convincing the government officials that open source is more secure/reliable than closed source software.

It was very encouraging to learn the Ministry of economical development of RF relation and vision for IT industry development in this country. The public sector organizations' tender on computer equipment and software delivery starting from this year (2005) has to provide non-discriminatory conditions for both proprietary and free software. The state tender is now oriented more on purchase of services but not licenses.

Conception of E-government development does not consider any particular measurement to support FOSS. But it does remove many options that allowed unjust domination of proprietary software in the equipment and software delivery tenders for public organizations.

Approach in using information technologies in the secondary school education is also worth to be mentioned. First of the IT curriculum for the school is not anymore proprietary software oriented. It is neutral and does not specify any certain platform. And then every PC in the school lab has to be at least bi-platform – proprietary software (most of the cases MS products) and FOSS.

Representative of Linux International - Jon Hall, one of the key speakers welcomed everybody to make use of Linux as a trademark belonging to Linus Torvalds for any purposes, but porno sites. He welcomed the rebirth of services and focused on the TCO (total cost of ownership) issue. So many people consider TCO as a sum of the following components:

- Hardware
- Software
- Services

While TCO is not about the cost it is about value of software facilitating:

- empowerment
- quality of solution (lowering operating costs)

- balance of payments
- high quality, high technology local jobs
- country security and
- control of your business

Jon Hall stated that now when hardware is incredibly chip software must be tailored again. He pointed out that software freedom means freedom of a balance of payments. This means:

- less money leaves your country for packaged software
    - more money can be spent locally on tailoring Open Source, which
        - creates local jobs
            - who eat local food, buy local housing, pay local taxes
                - which creates more local businesses

According to Jon Hall the governmental concerns in utilization of ICT should be

- Military Security
    - imagine – US military uses closed source software originated from China.
- Non-military longevity
    - how important is your email system?
    - How long should it work?
    - Are you really in control of it?

Jon Hall "maddog":

- *Local jobs mean a local future*
- *Software freedom means freedom of a balance of payments*
- *TCO is not about the cost it is about value of software*

It was interesting to learn that there are 97,000 FOSS projects and over 1000,000 developers of FOSS applications around the globe.

IBM. Adam Jollans. WW Linux Strategy Manager IBM SW Group!

He stated that Open Standard is important in communicating people over Internet and Open Source enables governments to control their own future. As for the Linux it delivers a value to customers. It works, it does not crash.

At the same time Mr. Jollans highlighted FOSS weaknesses, such as:

- Guaranteed Support
- Certification
- Complex Scenarios
- Specialized Industry Needs
- Ease of Use/Training

- **May 2005**

Local NGO Public Fund Civil Initiative on Policy of Internet, which I am working for, has been working on implementation of three different ICT-oriented projects such as Internet Capacity Building, e-Community, and Localization of Mozilla applications with the academic community, local governments, and Internet users as the target groups respectively. All the projects use FOSS applications as a software platform in their activities.

Within the activity of CIPI e-community project there are established two pilot information resource centres in two target towns. The principal difference of these these centres from existing ones are in being based on the GNU/Linux Mandriva. Citizens of both towns have a chance to learn the new facilities capacities and share their skills and knowledge during the seminars that are planned to conduct for them. The first training seminar passed during this month in both centres that was focused on introducing free software as an alternative to popular proprietary software. 12 participants – representatives of local public sector organizations and education field had an opportunity to gain user's skills within one week training.

Initiative of CIPI to change the IT curriculum for secondary education found support of the Ministry of Education and the Research Institution of Pedagogical Sciences by creating a working group under the latter. The current IT curriculum is proprietary software oriented and an idea of working group is development of the software neutral curriculum.