

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



FLOSSWORLD

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



D39: Workshop Report Southern Asia 2

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REPORT

FLOSSWORLD WORKSHOP
“South Asia Region”

“12-13 January 2007”

CONTENTS

1. Attendees
2. Workshop agenda
3. Report
4. List of presentations
5. Annex Malaysia Workshop

1. ATTENDEES

Participants

Name	Organisation	Country	Email
Mr. Rishab Aiyer Ghosh	University of Maastricht	Netherlands	rishab@dxm.org
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2.WORKSHOP AGENDA

Time	Session
9.30 – 10.30	Background – Dr. Rishab Ayier Gosh
10.30 - 11.15	FLOSS in India – Dr. Sasikumar, C-DAC Mumbai
11.15 – 11.30	Tea Break
11.30-12.15	General Observation on the Malaysian survey – Ms. Agnes

Time	Session
12.15-13.00	FOSS in Taiwan – Mr. Tzu-Chiang Liou
13.00-14.00	Lunch
14.00 – 15.30	Discussion on "FLOSS in e-Government" Survey result analysis and policy plans
15:30-15:45	Tea Break
15.45-16.15	Discussion on "FLOSS in e-Government" Survey result analysis and policy plans (continued)
16.15-17.15	Discussion on "Inter-Regional Differences in FLOSS" survey results and policy plans
Day 2	
9.30 – 10.45	Discussion on "Inter-Regional Differences in FLOSS" survey results and policy plans(continued)
10.45-11.15	Talk on open standards by Ashish Gautam, IBM
11.15-11.30	Tea Break
11.30-13.00	Discussion on "Human Capacity building for FLOSS" survey results and policy plans
13.00-14.00	Lunch
14.30 – 15.30	Discussion on "Human Capacity building for FLOSS" survey results and policy plans(continued)
15.30 – 15.45	Tea Break
15.45 – 16.30	Wrap-up

3 . REPORT

Discussion sessions were held on the first and second day in the afternoon, the discussion sessions were focused on the survey analysis, though the discussion often wandered into a number of locally relevant issues/concerns of FLOSS.

Discussion on "FLOSS in e-Government" Survey result analysis and policy plans

Discussion summary

It is found that there is a lot of interest for the FLOSS among the higher officials, in Government services. Due to inadequate response from people in this survey, the results may be biased. Though the survey results showed that large number of organizations are using open source softwares, in reality there is a need to spread the awareness, usage and interest of employees to use FLOSS. There are multiple reasons attributed for this:

- I. Many Government employees are not aware of open standard/open source.
- II. Most of the lower level employees use some tool because some of their colleagues are using the same. There is no real inclination to explore new things, understand benefit/drawback of using certain tool, etc.
- III. The lower level employees do not understand the significance of the term 'open'. For most of them a tool used 'often' is 'open'.
- IV. They prefer using tools for which expertise is available.

It was also found that, there is need to introduce government policy to increase the usage of FLOSS. The government organizations are keen to work on FLOSS if they are promoted and encouraged by government.

This discussion led to issues such as how to educate the Government about FLOSS and its benefits, and need to interview the local/government organizations to get their requirements and problems.

The number of responses from various regions showed that mostly people from Southern and Western India took part in the survey. It was noted that the level of interest and awareness in FLOSS, among the government officials in India, varies from state to state. In states like Kerala, Tamilnadu and Maharashtra the Government employees even at the lower levels of offices are aware of FLOSS and are using it. However, in some other States, the awareness about FLOSS even at the top levels is low.

Discussion on "Human Capacity Building/Skills Development in Open Source" survey analysis

Discussion summary

It was found from the survey analysis that there are large number of developers aware of open source softwares and are using it. They are also ready to contribute their work to the community. It is further noted that the Open Source developers and users get good positions in companies.

Many large companies like IBM, Red hat, Novell are encouraging the use of FLOSS, in India. They are also trying to incorporate Open Standards in the development of

software to make them acceptable all over the world.

Discussion on “Usage of FLOSS Higher Education Institutes “ analysis and survey

Discussion summary

It is noted that the Higher Education Institutions are the first point of contact for people in computer use. Colleges and Universities are the places from where the awareness of FLOSS can be spread. In all the Institutions, the general trend is that when the students are asked to develop projects, they generally go for the common projects like library management, Payroll systems etc.

Open source will give the students the opportunity to work on much richer system. They can either develop a new system or build on an existing system and later give back their work to the community for use and extension.

This will improve their coding skills and will help them understand the code written by others, it will also help their interacting skills with other people, and they will know how to work in a collaborative environment. The most important is, their project will not be thrown away, it will be given back to community so that new developers can enhance the same.

4. LIST OF PRESENTATIONS

4.1 Presentation by Mr. Rishab Iyer Gosh, the survey result analysis on impact and usage of FLOSS in Participant countries(Comparative analysis)

Mr. Rishab Aiyer Ghosh, from University of Maastricht the co-coordinator of the FLOSSWORLD project, presented the overall survey results and analysis for all partners. The analysis included the survey results of all participant countries. He presented the comparative study and results in partner countries. The analysis also included comparative study of FLOSSPOLLS results.

The survey showed the present status, usage of FLOSS in different countries and also

presented the estimate for its usage in coming years.

The Survey results can be obtained from

<http://ec.europa.eu/enterprise/ict/policy/doc/2006-11-20-flossimpact.pdf>

4.2 Presentation by Dr. Sasikumar, Survey analysis for India

Dr. Sasikumar from CDAC Mumbai, presented the survey results analysis report done in India. Due to low number of participants in some of the surveys, the analysis remained biased. Despite this, the usage of FLOSS and its awareness in India is increasing.

Preliminary findings on 3 surveys; Employers, Developers and Government sector were presented at the workshop.

He presented the analysis report on “FLOSS in Government Organizations” and “Survey Analysis on Developers and Employers”.

i. Government Survey

- 425 people from govt organizations were contacted
- The people were IT managers in the organizations.
- 23 people from different government organizations took part in this survey.
- **Survey characteristics**

The survey was aimed to collect information on the awareness & usage of FLOSS in government offices. Mainly, managers at the various government offices were contacted to participate in the survey. The questions revolved around:

- FLOSS usage and promotion in the organization.
- How they are contributing to the open source community and projects they are doing for open source community.
- Willingness to use open source softwares.
- Their opinion about usability of FLOSS.
- The problems faced by them in using and not using open source software.

● **Findings**

- 45% government organization use FLOSS.
- All desktops and servers use some open source software except 4.7 % desktops/servers which don't use open source software at all.
- Apache,MySQL,GNU Linux,PHP are the maximum used open source softwares.
- Proprietary operating systems like Ms Windows are still used in large number of Desktops.
- Only 31% people agreed that using open source software is easy and only 28% people find open source software reliable.
- However 86 % responded the intention to increase share of open source software in their Depts
- 59% agreed the need to reduce the cost of license.

ii. Employers Survey

- 115 employers were contacted
- 67 Employers took part in the survey
- **Survey characteristics**

The survey aimed at understanding the opinion of companies with respect to FLOSS. The survey focussed on the usage of FLOSS in the participant's company and the openings they had for FLOSS users in their company.

We contacted all HR managers of the companies to participate in the survey. Some highlights of survey questions

- Asked for usage and availability of work on open source softwares.
- Asked if the companies look specifically for people with FLOSS experience.
- Asked if the companies had specific positions for FLOSS users and if they gave special preference for people working on FLOSS.

- **Findings**

- 74% employers are using either open source software or developing it.
- 1-20% is the share of employers with FLOSS experience.
- 52% employers say that they ask for experience in FLOSS while recruiting.
- 76% employers say that they ask for Open Source Software Experience.
- 31% employers said same pay is given to employees with free s/w development experience but not with formal degree as compared to university graduates with work experience.

iii. Developers Survey

- 125 developers were contacted
- 97 developers took part in this survey
- **Survey characteristics**

The focus of the survey was on understanding the nature of participation of the corresponding person in FLOSS, the skills learnt by participating in FLOSS benefits gained by the experience etc.

Members of various LUGS, community and other developers were contacted to take part in the survey. Major aspects covered by the survey include:

- Survey reviews for socio-demographic background information
- Role in the FLOSS community
- Learnings from FLOSS community- skill sets developed by using and developing open source softwares.
- Contributions to the FLOSS projects
- Women participation in the FLOSS community

- **Findings**

The analysis of the survey results led to some interesting findings, some of which are listed below

- Analysis is divided into 2 groups: employers with open source software knowledge (Group A) and Employers with no basic open source software knowledge (Group B).
- 75% of Group A respondents claim they use or develop open source software.
- 5% of the survey respondents are women.
- Most FLOSS developers are in the 20-30 age group (70%)
- The main reason to join FLOSS is to develop new skills, learn new forms of cooperation and to share knowledge and the least common reasons are to make money or to get a reputation in the OS/FS developers scene.
- Skills developed using FLOSS are to write code, to coordinate one's work with others work and to accept and to respond to criticism from others and ,to develop awareness of legal issues relating to s/w.
- 47% respondents say there is good job opportunity for FLOSS developers.
- 60% are directly earning for developing, supporting, administrating FLOSS and 28% are indirectly earning as FLOSS participation helped them secure jobs.

4.3 Presentation by Ms. Agnes, Survey analysis for Malaysia

Ms. Agnes from MIMOS represented Malaysia at the workshop, accompanied by Melissa bt Hassim. At the workshop ,Ms Agnes presented the preliminary findings on 3 surveys; Employers, Developers and Government sector conducted in Malaysia. The summary below is provided by Ms. Agnes.

i. Government Survey

- 115 Government agencies participated in the survey.
- 60% claimed to use open source software.
- All desktops and servers use some open source software except 14.9 % who don't use open source software at all.
- Of the open source software s/w used, MySQL scored 46.8 % , Mozilla 42.3%, Linux 40% .
- Proprietary software still ranked high with MS Office 81 % , MS Windows 79 %.
- 69% reported of interesting S/W sharing with other Government Agencies.
- Citizen access to Govt data regardless of s/w platform is high at 75.4 % .
- On ease of use of open source software, 49 % did not agree.
- 6% strongly agreed that it is too hard to find companies that provide technical support for open source software.
- However 65.8 % responded the intention to increase share of open source software in their Depts.

ii. Employers Survey

- 126 respondents from 12 industries participated in the survey.
- Analysis divided into 2 groups: employers with open source software knowledge (Group A) and employers with no basic open source software knowledge (Group B).
- 55% of Group A respondents claim they use or develop open source software.
- 50 % of Group A respondents ask job applicants about their experience in using open source software compared to only 7% of Group B respondents ask the same.
- 33.8% of Group A respondents say that holders of formal computer science degree are better compared to possessors of open source software developing experience while 39% say both are equal.
- A significant 91% of Group A believe that open source software experience increase value of employees.
- 40% of employers prefer to hire employees with proven open source software experience however 42% say that such experience background will not affect their hiring.
- 27% of Group B employers feel that employees will earn the same regardless of their open source software experience.

iii. Developers Survey

- 77 open source software developers participated in the survey.
- Major reason for joining open source software community is to develop new skills (80%).
- Top 3 technical skills which respondents learn a lot from the community include introductory programming skills, reuse of code written by others and programming languages.
- On average, the respondents adopt a more favorable attitude toward learning of legal skills through participating in FLOSS community activities.
- 70% of developers believe that participation in FLOSS community compensate for the lack of formal computer science degree.
- 59.5% of the developers work more with the local community while 19% work more with the international communities.
- 41% believe that people with open source software experience are more likely to get a job than people who have proprietary software development experiences.

4.4 Presentation by Mr. Tzu-Chiang Liou, On FOSS in Taiwan

Tzu-Chiang Liou works for OSSF (OSSF Supports Software Freedom) which is a component project of Taiwan's Open Source Software Initiative. OSSF would like to accelerate the progress of Taiwan and make its role as a key contributor of open source software world-wide. It would also like to assist the industries and government to create new businesses and strengthen existing businesses. It helps to expand the breadth and depth of open source software talent and expertise.

In Taiwan, a survey on the use of FLOSS was done. To conduct this survey, people were contacted by telephone, and they were asked about their knowledge regarding FLOSS. With the help of this survey, a analysis report was made.

He also explained how FLOSS use is encouraged in their country: by conducting competitions, to encourage participants of FLOSS in various areas, and use of open source foundry which helps people facing problem using FLOSS. They also act as professional legal consulting services for open source.

14.5 Presentation By Ashish Gautam, IBM

Ashish Gautam from IBM gave presentation on Open Standards and iCOS an IBM project for students of Universities. He said, the i-COS will provide platform for the students to build up their in-tern projects, and these projects will be developed using Open Source softwares and following Open Standards. The projects developed by the students will be available free to open source community and other students. The students would submit the projects online on i-COS portal. To guide the students, people from open source community are asked to come forward.

5. ANNEX MALAYSIA WORKSHOP

In the framework of FLOSSWorld, Mimos took the initiative to organise a workshop similar to FLOSSWorld Regional Workshop procedures and characteristics in Malaysia. This workshop was held in 2007 and is described below.



FLOSSWORLD WORKSHOP “MALAYSIA”

“13 March 2007”

CONTENTS

- 5. Attendees***
- 6. Workshop agenda***
- 7. Report (template format)***
- 8. List of presentations (attached)***

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OBSERVERS comments:

This FLOSSWorld Workshop Participants provided very positive feedback as follows ;

- Well planned agenda that included sharing of the 3 Survey Outcomes ie government, Employer, & the OSS Developers and opportunities for the Participants of the 3 Groups to deliberate the Survey Outcomes & issues and built consensus in developing recommendations for Policy formulation.
- Quality of MIMOS presentation was commendable as it provided very good insight into the OSS facts and figures for the 3 Surveys
- Quality of discussions were very good judging from the overwhelming participation in the Workshop activities & outcomes
- The cross sectoral discussion session was well facilitated in identifying common issues and the consensus building process was successfully achieved with concrete recommendations formulation of OSS policies

ORGANISING COMMITTEE Comments:

- The Workshop was a resounding success in achieving the following objectives;
- Participations particularly from the Government Sector was overwhelming
- Participants were able to understand and appreciate FLOSSWorld initiatives
- The 3 sectors of the Participants had the opportunity to analyse and discuss the FLOSSWorld Survey outcomes together
- Enhance collaboration spirit / networking activities of the Malaysian OSS Communities Developers
- Outcomes of Workshop used as basis for final FLOSSWorld reporting

2 WORKSHOP AGENDA

FLOSSWORLD REGIONAL WORKSHOP – MALAYSIA

DATE : 13 March 2007
TIME : 8.15 am – 5.00 pm
VENUE : Bukit Jalil Golf Resort

08: 15 – 09:00 Registration & Morning Coffee

09:00 – 09:15 Welcoming Address

by En Abd Aziz Abd Kadir, Senior Vice President, MIMOS Berhad

09:15 – 10:00 Presentation : ‘ Overview of FLOSSWorld Malaysia Survey Findings ’ for ;

- **Government Sector**
- **Industrial Sector**
- **Comunity Sector**

by Puan Agnes Ng Sook Fei, Program Manager FLOSSWorld

10:00 –10:15 Coffee break

10:15 – 13:00 Breakout Session : Analysis of Survey Data & Summary of Key Findings ;

Track 1 – Government Sector

Facilitated by Ass. Prof. Lee Chew San

Track 2 – Industries Sector

Facilitated by Dr Azman Firdaus Shafii

Track 3 – Developer Community

Facilitated by En Mohd Khairil bin Mohd Yusof

13:00 – 14.00 Lunch

14:00 – 15:30 Plenary Session : Presentations of Key Workshop Findings

Chairperson : Pn Agnes Ng Sook Fei

tRACK 1 - gOVERNMENT Sector

By Ass. Prof. Lee Chew San

Track 2 – Industry Sector

by Dr Azman Firdaus Shafii

Track 3 – Communit Sector

by En Mohd Khairil bin Mohd Yusof

**15:30 – 16:30 Consensus Building Session ;
Cross Sectoral Analysis / Rcommendations on National and
Global Policy Guidelines**

Facilitated by : En Mohd Khairil bin Mohd Yusof

16:30 – 17:00 Closing Address & Presentation of Token of Appreciation
by En David Khor Tark Wei, Director, Program Management Office,
MIMOS Berhad

17: 20 Tea

END

3 REPORT

The skills development study/ capacity Building

Questions for workshops and discussions:

What role do informal open source communities, universities and other HEIs, and businesses play in the development of skills related to the software sector?

How important are secondary skills (such as knowledge of licensing legal issues, teamwork and management) to software development, and how and where are these skills best learnt?

How do attributes such as demographics and gender affect interest from participants?

What is the impact on businesses – such as better skills and cost savings – of skills learnt through (unfunded) participation in open source communities? What are the specific benefits to small and medium enterprises (SMEs)?

What is the consequent impact on employment generation and employment levels?

How, if at all, should universities and formal HEIs respond to maximize the skills provided in their environments, to best incorporate further skills learnt informally through open source communities?

How, if at all, should governments respond?

Description and process

Rapporteur Notes – Employer Survey

The Track was facilitated by Dr. Azman Shafii. There were 12 participants at the Employer Track. Participants came from various body including government ministry, Federation of Malaysian Manufacturers, Malaysian National Computer Confederation (MNCC) , Open Source Competency Center (OSCC) and open source solution providers. Each slide presented by Dr. Azman triggered series of discussion among the participants. Final key points were captured and presented during plenary session in the afternoon.

The process was Dr Azman went thru' all the slides of the Employer Survey and first identify the key findings, then discuss the key finding from 4 perspectives;

- Significance of the questionnaire
- Underlying factors
- Issues
- Opportunities

Key Survey Finding 1 - OSS Knowledge respondents: ICT Sector 92%, Manufacturing 46%. Other Industries not really aware of OSS

Significance

In terms of GDP contribution, ICT sector only contributes a small portion to the total. As such this finding is significant to reflect the scope and opportunities to promote OSS to the other industries.

Underlying factors

1. The general feeling was that sectors other than ICT and manufacturing hire less IT personnel and also there were lack of awareness and promotion of OSS on the whole to the Industry sector.
2. Perceived lack of support from OSS service providers

Issues

Promoting OSS to the industries is very challenging as majority of the industries may not have very skilled ICT personnel and the many industries outsource their IT projects.

Opportunities

1. Industries value non-product based ICT knowledge. Emphasize more on underlying fundamental ICT knowledge. Open source provide the venue for such skills.
2. There is a big opportunity for open source software usage in the Manufacturing sector. A known statistic from SMIDEC website stated that there is more than 500,000 SMIs in the country and 90% of them are manufacturing companies.
3. Similar to the point above, there is considerably big opportunity to be grabbed among industries other than ICT and manufacturing. Big steps are required in promoting and educating OSS in industries such as retail, mining etc.

Recommendations

1. Industry associations, including FMM, SMIA, NGO, are expected to play big role in creating OSS awareness among their members.
2. Create and sustain demand as well as success stories in industry. Part of Government savings from OSS to fund development of OSS, e.g. open office migration, training – need a financial/economic analysis & justification
3. Push more support to end users (self support), OSCC should play bigger role Government should provide incentive to companies using OSS. Allocate certain percentage of Government agencies IT budget for OSS.

Key Survey Finding 2 – OSS community provides the environment to learn technical, managerial & legal skills. In addition, employers' value OSS skills, those that have OSS skills are preferred during hiring.

Significance

1. It was agreed unanimously by the participants that OSS skills, both technical and managerial, are valued by employers.

Underlying factors

There was consensus that OSS skills are equivalent to formal education in computer science degree. Government and industry is urged to take opportunities realized from this trend and take advantage accordingly.

1. Industries value non-product based ICT knowledge. Emphasize more on underlying fundamental ICT knowledge. Open source provide the venue for such skills. Industry would like to see more formal OSS certification in place. E.g. LPI, ICDL for open source based systems.
2. Employers value managerial skill acquired by employees with OSS skills. When working in an OSS project, quick change can be done due to availability of source code. It becomes project management issue, process of completing the job.

Issues

1. OSS skills equivalent to computer science degree. Some form of formalizing

the OSS skills is required.

Opportunities

1. Government should recognize the notion that OSS community provides the environment to earn technical, managerial & legal skills. In addition, employers' value OSS skills, those that have OSS skills are preferred during hiring. Government could take this as an opportunity to introduce OSS community as a medium of training and learning by formulating the community as part of syllabus or subject in colleges.

Recommendations

1. Institution of higher learning should consider the importance of OSS skill in formulating their syllabus.
2. Government should recognize OSS skills as useful criteria to appraise individuals, either government servants or civilians.
3. This is a good proposal for government to support and help training providers in producing more OSS certifications.

Key Survey Finding 3 – Perceived neutrality in Government procurement policy based on merit.

Significance

1. This is a point which was discussed by industry representatives but not directly derived from the survey result. The representatives urge the government to clarify the perceived change of neutrality in Government

Underlying factors

Comments were made urging the government to clarify the perceived change of neutrality in Government procurement policy based on merit.

1. Open standards to promote true technology neutrality, e.g. ODF, HTML/CSS. Examples of sites that do not allow interoperability: e-perolehan, e-filing

Issues

1. The industry expect the government to ensure open standards are use among the government websites. Comments were made that certain government websites such as e-Perolehan and e-Filing are using technologies that require clients to use certain type of web browser only.

Opportunities

1. Opportunity for OSS solution providers to provide solutions to government that use open standards. Government website should use open standards.

Recommendations

1. **Use open standards wherever possible.**

Rapporteurs Notes – FLOSS Developers Survey

Track was facilitated by Mr **Mohd Khairil bin Mohd Yusof**. There were 14 participants at the Developer Track. Most participants were from Developers Community. Representatives from the Open Source Competency Center , an outfit under MAMPU also participated.

The process was Khairil went thru' all the slides of the Developer Survey and first identify the key

findings, then discuss the key finding from 4 perspectives;

- Significance of the questionnaire
- Underlying factors
- Issues
- Opportunities
- Recommendations

Key Survey Finding 1 - FOSS aids development of skills

Significance

There was consensus amongst all that this was a significant finding.

A developer representative stated that skills acquired were at much higher level than their non-FOSS peers. Several more backed these claims.

ICT Industry representatives (FOSS), stated that they felt the survey was accurate from their experience in hiring.

One industry representative stated that proprietary software also aids in development of software and innovation.

A student agreed and stated that his skills were much higher than his peers.

Underlying factors

Some developers highlighted that this is due to open participatory nature of FOSS development.

Issues

An industry representative stated that this is not entirely true, and that FOSS teaches students to disregard IPR.

Opportunities

Industry sector representatives stated that they needed more FOSS human resources with FOSS skills.

Government representative stated that they agree with this finding, and would like to see more training providers.

Recommendations

Students reiterated that FOSS technologies should be used in teaching of IT courses.

Key Survey Finding 2 - None surveyed were unemployed.

High average income.

Significance

There was a consensus amongst the audience that this was a healthy indication that involvement in FLOSS activities aids in employment. FLOSS developers also stated that they were able to get employment easily due to both their technical and non technical skills.

With the high rate of unemployment for ICT graduates, participation in FLOSS may provide the required skill sets that employers are looking for. This is further strengthened by the industry representative agreeing that people knowledgeable in FLOSS are more well sought for as they carry a wider skill set.

Underlying factors

Gathered from the statistics, it has been shown that FLOSS teaches both technical and non technical skills.

FLOSS developers made it clear that they were able to get freelance work easily, which aids in the above average income.

A FLOSS developer also raised that their side jobs pay more than their primary jobs.

A FLOSS developer also stated that their participation in FLOSS activities garnered them recognition that provided them the ability to gain indirectly a higher income. Similarly this participation aids in reaching an international audience.

Issues

Malaysian employees have been known to be comparatively underpaid, and certain industry representatives disagreed with the statement about FLOSS developers earning a higher income. This does not correlate with the large volume of people voluntarily participating in FLOSS. For these people FLOSS could be a hobby, and their main job is something else entirely skewing the results.

Recommendations

To address the issue about the industry representatives disagreement and a large number of people voluntarily participating in FLOSS, it was discussed that the income be tied to their profession.

Key Survey Finding 3 - 70% surveyed were voluntary, and not earning directly or indirectly from FOSS

Significance

The FLOSS developers argued that the survey targeted were generally mailing lists and forums, where a large number of the people actively participate by answering questions. Similarly they believed that the definition of 'contribution' was too broad.

Underlying factors

A large volume of FLOSS developers surveyed are only voluntary, and do not do it as their main line of work.

Issues

There was a consensus amongst developers that this is due to the definition of 'contribution' that included participation in mailing lists and forums.

Similarly as the survey was delivered to mailing lists and forums, where a large number of the individuals participate 'voluntarily' by answering questions at such places.

Opportunities

A student raise that is a large body of untapped individuals skilled in FLOSS that could be rewarded for their active contribution. This can be set as an example that FLOSS does bring in money. Similarly additional resources would not be needed to find potential employees.

Recommendations

A industry representative suggested that the definition of 'Developer', be broken down into: non FLOSS Developers, FLOSS Developers (who are users), and FLOSS Developers (who are contributors).

The type of contributors should further be broken down into their level of commitment/recognition: Lead, Maintainer, Reporter.

With a proper definition of 'Developers', the survey could be convey. The survey should be separated into the level of commitment.

Key Survey Finding 4 - Main reason for joining FLOSS Community was to acquire new skills.

Significance

There was consensus from all developers that this was a valid finding.

A student agreed that active involvement in FLOSS contributed to his skills being stronger than other peers.

Underlying factors

Employer demand would force people to acquire new skills to solve problems.

Recommendations

A student raised again that higher education curriculums should emphasize on the usage and participation of FLOSS.

Key Survey Finding 5 - Category of skills that were acquired with the highest response was code reuse, and legal skills. Various other skills, technical and none technical also were reflected.

Significance

The importance of learning code reuse can help in reducing the amount of time spent in building a system.

There was consensus from that FLOSS participation and contribution taught both technical and non-technical skills.

There was consensus from participants that they gained knowledge in Intellectual Property Rights.

Underlying factors

Some FLOSS Developers stated that when contributing to FLOSS, they need to know how to match software licenses and copyright in order to package their software accordingly.

Key Survey Finding 6 - The survey showed that there was a lack of participation.

Significance

Most developers were in agreement that the definition of 'contribution' 'was not clear enough, and it should distinguish between users of the tools and contributors to the project.

A FLOSS developer raised that Malaysians are more attributed to hoarding things for themselves. FLOSS developers also raised that there was a low level of participation due to the people the survey was targeted to.

Underlying factors

Some FLOSS developers stated that it is their belief that most FLOSS developers in Malaysia are users and not contributors.

Key Survey Finding 7 - 85% of women stated that they faced some form of discrimination.

Significance

Consensus including women developers that this is a general issue and not FLOSS specific.

Key Survey Finding 8 - Most FLOSS developers joined the community 72% after 2000.**Significance**

There is a recent increase in the number of interested parties in FLOSS.

The audience also deduced that from the average age of FLOSS developers it can be argued that most of the people joined the community after their college/university days.

Issues

Older FLOSS developers may not be participating in the survey which would skew the result.

Recommendations

A FLOSS developer stated that the survey should indicate the specific year, and if possible month they joined the FLOSS community so that it can be tied to any current events at the time that influenced their adoption of FLOSS.

Key Survey Finding 9 - Developers surveyed had a preference for copyleft licenses.**Significance**

FLOSS Developers were of consensus that those that contribute were altruistic and wanted to protect their code.

Issues

The industry representatives argued that it may not be in the developers position to select the choice of license for their particular software. They may have to follow the already applied license (such as GPL).

CROSS SECTORAL ANALYSIS

Session facilitated and reported by Mr Mohd Khairil bin Mohd Yusof

1. Awareness (Industry + Government)**Issue**

There was consensus among participants that there was lack of awareness regarding FLOSS in both industry and government sectors.

Industry representatives stated that current efforts are targeting specific groups separately and it is not effective.

Recommendations

Industry representatives recommended that more efforts are made in raising awareness by working with industry groups, NGOs and the governments Open Source Resource Centre

(OSCC). Suggestions include MNCC, FMM, IPTA, MOSTI, EPU, MoF and KSN. A member of the developer community stated that a concerted effort by all is required. Recommendation from some industry representatives that MDEC can assist in facilitating raising awareness for different target markets. There was a recommendation from some government representatives that there is a need for a single government driver. Some government representatives highlighted that the government already has a framework for raising awareness through MAMPU and OSCC. Some industry representatives stated that there is no framework for the industry. Industry representatives then suggested that there is a need for a national framework for raising awareness at the highest level.

2. Employable Skills (Industry + Developers + Government)

Issue

Employers and developers sessions from the surveys reported that a key survey finding was that FLOSS developers were learning skills that were sought after by employers.

Recommendations

Some academic and industry representatives stated that there is a need for more industrial trainings and placements and also project based mentoring.

Some industry representatives highlighted that there is a need for none-product based curriculum and more exposure for FLOSS tools in academia. Some academic representatives stated that they are already implementing or planning to implement these recommendations.

Issue:

There was consensus amongst industry and FLOSS Developer community representatives that FLOSS increases innovation due to exposure to technologies. It was highlighted by FLOSS Developer community representatives that local universities were not allowing research to be released as FLOSS and that this was hindering innovation. Developer representatives stated that this was due to the perception that FLOSS cannot be commercialised.

Recommendation:

Industry and FLOSS developers were in consensus that there is a need to increase awareness that FLOSS is compatible with IPR and can be commercialised. FLOSS developers highlighted that recent high valuations of commercial successes have started in academic sector including Google, MySQL, PostgreSQL and Linux.

It was recommended by industry representatives that local case studies of FLOSS success in innovation be highlighted.

Some industry representatives stated the need for formal certification such as LPI (system administrators) and ICDL (basic computing skills) to help assist employers in hiring FLOSS skilled employees. It was highlighted that there are free materials for both certifications that can be used by training providers.

Some government representatives recommended that the Human Resources Ministry provide FLOSS training for end users.

3. IPR Knowledge (Industry + Developers + Government + Academia)

Issue

Industry and FLOSS Developer key findings find that FLOSS involvement increases skills relevant to knowledge workers such as copyrights, licenses and patent law.

It was pointed out by some FLOSS Developers stated that Universities feel that they need to commercialise research and that FLOSS development or projects released as FLOSS cannot be commercialised. Some government representatives highlighted that government

funds such as Technofund and Science Fund require that research be commercialised. Some industry representatives and FLOSS developers agree that the primary aim of universities should be towards sharing knowledge.

Recommendations

Some industry and FLOSS developers recommended that awareness that FLOSS is compatible with IPR and can be commercialised. Recommendations were similar to arguments for increasing use of

FLOSS in academic sector and research.

Issue

There was consensus from all sectors that Malaysia has high piracy rates and that there was a lack of IPR awareness.

Recommendation

Some FLOSS developers and industry representatives stated that there was a need to educate awareness on IPR and FLOSS as solution, and not only focus on enforcement. Some government representatives recommended that industry and FLOSS developers should raise this issue with the Ministry of Domestic Affairs and Trade. There was consensus amongst FLOSS developers, industry and academic representatives that usage and contribution to FLOSS should start at early at school and universities.

4. Open Standards / Technology Neutrality (Industry + Government)

Issue

It was highlighted by Industry representatives and FLOSS developers that the definition of Technology Neutrality currently defined as neither FLOSS or proprietary by the Malaysian government. Some government representatives agreed with this statement. Industry representatives and FLOSS developers stated that this has a negative impact on FLOSS adoption.

Recommendation

There was consensus that the definition for technology neutrality be extended to also include interoperability between both FLOSS and proprietary software through the use of open standards.

5. Contribution is low (Government)

Issue

It was raised in the survey results that government contributions were low, but the exact definition of contribution was not defined. Some government representatives stated that government survey responders would have interpreted this as contributions towards collaboration and sharing initiatives were lacking.

Some government participants stated that this is likely due to possible security issues and some departments wishing to keep certain knowledge or projects to themselves.

Recommendation

Some industry representatives stated that the use of interoperable standards would increase sharing of information.

Some FLOSS developers recommended that more support by government towards creating FLOSS project that can be used by all such as a MyKaD reader or a Bahasa version of OpenOffice would not only increase collaboration and sharing, but would also open possibilities for innovation by FLOSS developers and industry.

Some government representatives highlighted that OSCC is the platform for shared

government projects, including industry and community support. A recommendation was made by some government representatives that government agencies look at OSCC shared projects first to find FLOSS projects for collaboration and sharing.

6. Negative Views - unreliable, not easy to use, lack of support (Government + Industry)

Issue

In both survey findings, it was highlighted that there were negative perceptions towards FLOSS. Some participants stated that this negativity is being spread by some vendors with vested interests against FLOSS.

Some industry representatives stated that FLOSS is a blanket statement and that there are some negative FLOSS applications, which do not necessarily representative of the quality or reliability of all FLOSS applications.

Recommendations

Some industry representatives stated that FLOSS must also brand itself, through case studies with government playing an active role in this.

Some industry representatives recommended that FOSS support vendors list at OSCC be highlighted as a source for support. Some industry representatives however stated that the information was not up to date and there was a need for better categorisation. Some government representatives stated that FLOSS vendors and developers should add themselves to this list.

Government authorities

Questions for workshops and discussions:

What, and how large, is the role of government in the ICT sector in target countries?

What is the degree of IT use in government authorities?

What are the main hindrances to increased and effective IT use in government? E.g. cost, availability of support, choice of vendors. . .

What is the awareness of open source and open standards?

What is the behaviour towards open standards and interoperability in practice?

What is the extent of open source usage?

What policies do local and regional government authorities want to adopt?

What is the relation between international, national, regional and local policies and actions towards open source and open standards/interoperability?

Rapporteurs Notes – Government Survey

Track was facilitated by Associate Prof. Lee Chew San. There were 16 participants at the Government Track. Participants came from various Government Departments and Agencies including MAMPU, Ministry of Human Resources, Ministry of Higher Education, Local Authorities and Representatives from 2 Universities.

The process was Ass. Prof Lee went thru' all the slides of the Government Survey and first identify the key findings, then discuss each key finding from 4 perspectives;

- Significance of the questionnaire
- Underlying factors
- Issues
- Opportunities

Following were the key points captured.

Key Survey Finding 1 – Contribution to FLOSS development remains low in the government sector despite the relatively high usage of OSS.

Significance

It was agreed that this is a significant finding. A delegate observed that there was opportunity for departments to help one another with deploying FLOSS projects if there are significant similarities in the requirements, instead of each department needing to constantly reinvent the wheel.

Underlying Factors

Some representatives of government pointed out that this was because the level of awareness and usage were originally very low and while there is a noticeable increase in usage, this has not yet been translated into contributions back to the community as there has not been sufficient time for strong competencies to develop.

Issues

It was generally recognized that this is a difficult problem to resolve unless there is buy in from the top people within the organization. It was also noted that convincing the IT managers and Chief Information Officers of the organization would be important in encouraging uptake.

Opportunities

It was suggested by some delegates from government that an award scheme be instituted to recognize individual departments for successful FLOSS initiatives, as an incentive scheme to promote the use of FLOSS. The possibility of giving star ratings for government departments who have implemented open source and to what level of maturity could be instituted, with a corresponding reward scheme.

There are also opportunities for project based learning and mentoring schemes between organizations for knowledge transfer.

The Government is also serious about continuing to promote Open Source as reflected from the setting up of the Open Source Competency Center (OSCC) as an fully funded government outfit

to provide all the necessary support to Open Source activities to the Government Departments/ Agencies.

Key Survey Finding 2 – Reluctance to upgrade legacy systems

Significance

This was also a key finding which the delegates felt was one of the key reasons why the penetration of FLOSS in the government sector is not as high as it could be.

Underlying factors

Most of the delegates felt that this was largely due to an institutional resistance to change. There was no incentive to change to FLOSS as it was believed that the money had already been spent to procure and deploy proprietary systems which were seen as working fine. There was a further fear that changing the already working systems to FLOSS alternatives would introduce errors that would affect the functionality of the systems they are working on.

Opportunities

It was suggested that more stringent policy guidelines be introduced to encourage the adoption of open source. There should also be a policy of system co-existence, where legacy systems are not updated outright but exist together with a newer FLOSS version and tested to ensure that the new system is standards compliant and that the users are comfortable with the new system before the migration can occur gradually.

Key Survey Finding 3 – Perception that FLOSS is hard to use, unreliable and not easily customized

Significance

It was agreed that while these were common stereotypes associated with FLOSS, they have not yet been fully addressed.

Underlying Factors

It was felt that the lack of exposure to FLOSS highlighted in the previous issue led to these stereotypes persisting. It was also felt that the amount of choices available in the FLOSS world (for example, many different Linux distributions) created some confusion amongst first time users.

Issues

Unless more work could be done to expose people to FLOSS solutions and to assist them in using these products, this perception will persist.

Opportunities

Apart from conducting training and awareness programs to increase the civil servants' knowledge of FLOSS, it was suggested that project based learning programs be conducted. These programs would involve IT staff at one organization deploying a project in collaboration with experts at a competency centre who will act both as collaborators and as mentors.

It was also recognized that there should be incentives to migrate from proprietary systems to FLOSS.

4 LIST OF PRESENTATIONS

Workshop Malaysia