IGF 2012 WORKSHOP : (NO: 80) STEADY STEPS FOSS AND THE MDG'S

DATE: NOVEMBER 9, 2012

TIME: 9:00 -10:30 AM

ROOM # 3

TOTAL TIME OF WORKSHOPS: 90MINS

MODE OF WORKSHOP: PRESENTATIONS, Q & A

REMOTE PANELIST AND PARTICIPATION: AVAILABLE

NAME OF THE ORGANISERS OF THE WORKSHOP AND THEIR AFFILIATION TO VARIOUS STAKEHOLDER GROUPS:

- Ms. Judy Okite, Free Software and Open Source Foundation For Africa (FOSSFA) - Africa, Civil Society

- Mr. Satish Babu, International Center For Free and Open Source Software (ICFOSS) - India, Civil Society

PANELISTS:

- Ms. Judy Okite, Free Software and Open Source Foundation For Africa (FOSSFA) Chairwoman

- Mr. Satish Babu - ICFOSS, India - Moderator

- Mr. Fernando Botelho- F123.org, Brazil -Participated remotely through a video presentation which was not presented due to paucity of time

- Mr. Yves Miezan Ezo, FOSSFA , CHALA, France

- Mr Pranesh Prakash, Policy Director, CIS, Bangalore(Stood in for Mr. Sunil)

- Ms Nnenna Nwakanma, FOSSFA & CEO of NNENNA.ORG, an CT4D Consultancy

- Mr Mark Elkins, South Africa(stood in for Ms. Rachel Inne)

- Ms Mishi Choudhary, Executive & Legal Director, Software Freedom Law Center, New Delhi

RAPPORTEUR:

Ms Mishi Choudhary, Executive & Legal Director, Software Freedom Law Center, New Delhi

Concise Description of Workshop:

IG4D Thematic Cluster 2 "Enabling Environment"

Question 1: What does it take to attract investment in infrastructure and encourage innovation and growth of ICT services, including mobile technology and how can these technologies best be employed to address development challenges?

This workshop was organized to address some key areas, where Free and open source software has made a milestone, in the last few years to fulfill the Millennium development goal, across the globe. Many a times whenever FOSS is mentioned, thoughts quickly run to 'techies' . In this session , the Panelists gave practical presentations/projects on Free and Open Source Software, outside the technical arena and show how it has changed the face of :

1)Governments:- We aimed to look at, Policy in the area of Open Data,

2)In Academia:- We looked at, Open Education Resources (OER) , FOSS in schools tec, both in Africa and India.

3) In Private Sector- we tried to look at , Wealth creation, innovation and job creation, just to mention but a few. Secondly we tried to examine how FOSS is bridging the digital divide, existing between the different age groups more especially the Youth, Women, between the different social circles/media , inclusion of person's with disability, through partnerships and rural deployment of FOSS. We had the privilege to look at initiative(s), in Brazil. The workshop tried to address, the key policies, that governments should embrace, that would continue to enhance FOSS in the Internet development goal at national level , regional level and at the global level. A discussion was encouraged, from the participants to ensure that the FOSS community understands its strength and role in the Internet governance realm, in policy making process and in the areas of privacy, security

and openness.

WORKSHOP AGENDA:

1. What Milestone has FOSS made in:

i) Academia

ii) Government

iii) Private Sector

2. Is FOSS a factor to be considered in bridging the digital divide?

3. Regarding the milestones that FOSS has achieved, should there be national, regional, global policies to ensure a fair playing field?

−Closing remarks,

−What actions to be taken,

−Conclusion.

The discussion started with introductions and wondering about the number of languages that the participants had amongst themselves which covered a wide variety from English, Hindi, Malayalam, French tec. to Ruby, Perl, and Python, underscoring the presence of computer geeks and their contributions . The panelists were to analyze as to what does it take to attract investment in infrastructure and encourage innovation and growth of ICT services, including mobile technology and how can these technologies best be employed to address development challenges in the next ninety minutes. The time allotted to the workshop proved to be too short owing to the extremely interesting and challenging interventions from very enthusiastic and engaged members of the audience. An attempt was made to cover at least the key aspects of all that has been done in the rapidly changing

field of collaborative innovation with low capital investment and high level flag post worthy innovative technologies.

MARK ELKINS:

INDUSTRY AND OMNIPRESENCE OF FOSS TECHNOLOGIES

Mark who has been a user and contributor of FOSS based technologies for more than two decades. He started with UNIX in 1979 when he was in the University. As per him we see Open Source technologies everywhere in our daily lives but do not realize it, as it silently and efficiently runs underneath every major technology that touches our lives. For him the epitome of open source is the Linux Operating System. He moved to South Africa in 1983 and has stayed there ever since. Unix for him was a commercial system sold by Bell Labs which quickly lost to the new Linux that was totally free of cost, upgradeable, came with a free software license with freedom to read, write, modify and re-distribute. Mark started running his own ISP in Africa. That is relevant and crucial as Mark runs his entire business only on Open Source technologies without a single piece of proprietary software. Mark later moved to another business in the domain space area and ran that too entirely on FOSS technologies. He emphasized the point that Open Source is omnipresent and asked a question about the possession of smart phone amongst the audience members which may be of any of the major brands, smart phones, tablets, airplane entertainment systems that all have a piece of FOSS running underneath. So, exactly how wide is the reach of FOSS. If you look at the top 100 large super computers in the world, you will find that over 80% of those are actually running a Linux or a Unix operating system so it certainly works in very, very big systems. Pixel, the film people, they love to use this sort of software because now you can run a large number of very cheap machines to do processing for the videos, et cetera.

One of the smallest machines that he has seen is Raspberry PI, an open source collection-minded

people who have taken a piece of hardware and the default operating system is of course is Linux. One of the regional Internet Registries, ripe, they have something called the "Atlas" project and they have something that looks a little bit like a USB drive that plugs in just for power . Linux-based or open source software runs everything: from very small hardware to very, very large hardware. He expressed his extreme liking for FOSS based technologies as he feels that they are the offspring of the Internet or its the other way around. They certainly have grown up together. Without the Internet, open source, Free and Open Source Software simply wouldn't be in its abundance today. Therefore they are very, very highly related. What is cool about open source software in comparison to proprietary software, if you are given proprietary software it is sealed, you cannot get into it really, you cannot change it. You can't really generate much local value from it, whereas Free and Open Source Software, whether developed from scratch or not, you are developing intellectual property in here and now in wherever you are. It can be customized, obviously, to exactly the environment that you are in. Are there great success stories? Well, for example, there is something called "Asterisk". For years and years one of the strong holds, perhaps, of proprietary systems would have been the local switchboard in a company. You would be locked into Siemens or to whoever was providing the software and the hardware, their solutions, you could only buy their phones, you could only upgrade with their software, they basically commanded the price. There was no choice. Along comes something like Asterisk, being a Free and Open Source Software platform sitting on the Linux box, it becomes the switchboard, it has absolutely every function that you get from a switchboard, from recording a conversation to generating reports about who has been speaking too much on the telephone system within the company, and you could go out and you can buy SIP-based phones from 101 different suppliers and guess what? Because of FOSS, because of open standards, each one of those phones potentially works just fine on that switchboard system, and it all works together, and no-one notices, and that, to Mark, is one of the beauties of this whole thing. He emphasized that FOSS is allowing Africa to grow.

Ms. MISHI CHOUDHARY-

PRIVATE SECTOR PROJECTS IN THE MOBILE WORLD AND EDUCATIONAL EFFORTS.

She started the conversation by referring to what Mark had already emphasized as to the ubiquitous use of Linux and other FOSS based technologies. She said, "Unlike the economies of the North who are only now facing the questions of innovation under austerity, the rest of the world has grappled with the issue for a very long time. For the past two decades, collaborative innovators has produced not only pretty good but innovation that all the other smart rich people took most of the credit for. FOSS has demonstrated a new environment wherein no large capital investment was required to make capital equipment that transforms economic activity, soon someone will write in a paper and claim a Nobel Prize for it".

Visualization technologies underlying the cloud were produced by combination of academic research and individual inventiveness to which business investment came after its economic value was realized. FOSS made the cloud!

The new global IT paradigm-of cloud to mobile, FOSS in the android form now dominates the mobile field. The mobile world that is witnessing immense investment due to Android which is a Linux-based operating system designed primarily for touchscreen mobile devices such as smart phones and tablet computers. It is currently developed by Google in conjunction with the Open Handset Alliance. Proprietary producers such as Microsoft are so far behind in the cloud to an extent that they may never catch up. Innovation under austerity occurs in the first-order because the curiosity of young people is harnessed to the improvement of the actual circumstances of daily life. The second-order consequence is that the population becomes more educated.

So when we try to address the question Question 1: What does it take to attract investment in infrastructure encourage innovation and growth of ICT services, including mobile technology and how

can these technologies best be employed to address development challenges?

She said, innovation under austerity is not produced by collecting lots of money and paying it to innovation intermediaries. At present both the economies of north and south need, we need the doggedness of FOSS communities, encouragement across gender to use the collaborative model of FOSS, we need DISINTER MEDIATION-removal of the intermediaries, a fact that produced the World Wide Web, we need ways to spur development without large capital investments in education, governance, technological development.

To illustrate further, she presented couple of crucial elements of high tes low capital mobile technology.

OPENEST-Range Networks

FOSS project , Openest (Open Base Transceiver Station) is a software-based GSM access point, allowing standard GAM-compatible mobile phones to be used as SIP endpoints in Voice over IP (VOIP) networks. It is an example of the lowest mobile telephony architecture making it possible to use commodity hardware +FOSS to produce GSM mobile base stations without any of the high capital investments characteristic of worlds existing network operators. Its successful deployment in the island of NIUE, an island nation in South Pacific with a population of merely 1700 helped bootstrap later commercial services.

Montilla's B2G (BOOT TO GECKO)

With the Boot to Gecko project Mozilla is creating an implementation of a powerful mobile Web platform is reaching its fruition. Telephonical and Commutual have announced their intent to build a smart phone based on the Boot 2 Gecko project at Mobile World Congress 2012.

It will provide a full HTML 5 platform for low cost smart phones. This will drive the post android era

making FOSS smart phones available at prices affordable in Latin America, Africa, India. Already a society heavily characterized by mobile use, smart phone use represents less than 10 % and equivalent FOSS tes begins to appear in low cost smart phone devices, we will embed a fully FOSS platform and capture enormous innovation and creativity in Indian society.

RASPBERRY PI

The Raspberry Pi is a credit-card-sized single-board computer developed in the UK by the Raspberry Pi Foundation with the intention of stimulating the teaching of basic computer science in schools. Raspberry pi demonstrates the ease with which low cost server computers and school work stations can be constructed and delivered at prices everyone can pay requiring no advanced power infrastructure to make people present on the net a part in the global economy.

FREEDOMBOX

Freedom Box is a community project to develop, design and promote personal servers running free software for distributed social networking, email and audio/video communications.

OSHEA-Open Source Hardware Association

Some well-known examples include Alduino (a micro controller development platform), Cumby (a wifie device), Bootmaker (a 3D printer). Other companies making open-source hardware include Spark Fun Electronics and Evil Mad Scientist Laboratories (run by OSHWA board members).

EDUCATION:

Every society currently trying to reclaim innovation for the purpose of restarting economic growth under conditions of austerity needs more education, deliverable more widely at lower cost, which shapes young minds more effectively to create new value in their societies.

Coursera, is essentially the googlization of higher education, spun-off from Stanford as a for-profit entity, using closed software and proprietary educational resources.

MITx, which has now edX through the formation of the coalition with Harvard University, is essentially the free world answer. Similar online scalable curriculum for higher education delivered over Free Software using free education resources.

We need Free Software, we need Free Hardware we can hack on, we need Free Spectrum we can use to communicate with one another. We need to be able to educate and provide access to educational material to everyone on earth without regard to the ability to pay. We need to provide a pathway to an independent economic and intellectual life, for every young person.

Mr. PRANESH PRAKASH-

CIVIL SOCIETY

He said that the two most important issues to talk about in a conversation about MDGs are : Equity and Empowerment. An important part of equity is not just equitable distribution of material wealth but of controlled knowledge. The IP systems, the intellectual property systems that we have today privileges certain forms of knowledge. It privileges older knowledge over newer knowledge, for instance. It privileges mechanically reproducible knowledge over individual craft, and I see the Free and Open Source Software movement as part of a larger fight against this inequitable distribution over control of knowledge. What are the ways that free software actually helps? 1) it helps in spreading use. Free software, more often than not, also tends to be free as in free beer, not just free speech. One of the measures for target 8F that is on making available the benefits of new technologies, one of the measures is Internet users per hundred inhabitants. Without Free and Open Source Software and open standards, you cannot have the Internet at all. So you wouldn't have this measure at all if it weren't for Free and Open Source Software. All layers of the Internet are built on

open standards and Free and Open Source Software.

Importantly, he thinks that cyber cafes, way too often, at least in the developing world, end up having pirated software on them, so if we're to legalize them we cannot ask them to buy licenses for all the expensive pirated software that they have. For all of those, there are legal FOSS equivalents, and he already sees FOSS packages for cyber cafes which include customized software for running everything from usage monitoring to inventory monitoring, et cetera.

Phones with FOSS are incredibly important. CIS is doing a study which looks at pervasive technologies right now, and looking specifically at the lower end of such technologies, looking at sub-US$100, sub-US$50 phones and other such devices, and looking at multiple layers, both at the hardware and at the software layers as well as the content, and in all of this FOSS plays an incredibly important role, and in different ways, in some times it plays the role of the can airy in the coal mine. It is a good test to see whether what lies underneath is actually open standards, if you can build FOSS on it -- if you cannot build FOSS on it you know that it is not open standard, for instance.

Civil Society organizations are interested in open hardware and CIS has a laboratory where geeks are hanging out, tweaking around with our boards and building interesting stuff. The Director-General of W IPO, gave a speech a couple of years ago where the worldwide web was created and he spoke about how wonderful it might have been had the worldwide web been patented and the subsequent speakers, who were both physicists, spoke about how the worldwide web would not have existed had any of those technologies been patented then.

FOSS helps with study but without having FOSS as part of the education curriculum, there is no way that we can enable developers and Software Engineers from being anything more than "Cyber coolies". He said , "We don't want to just get the fish, we want to be able to catch the fish ourselves,

right? And the moment your aspiration goes beyond just, you know, working on the rent track and you have to teach kids free and open -- on the basis of Free and Open Source Software".

He gave real life examples due to the ease of being able to look at available source code and tweak it to get useful information for civil society organizations inter alia other uses. In India the health information systems project, which is a not-for-profit NGO specializing in designing and implementing solutions for -- in the field of health information. Access to knowledge is a very important principle which the MDGs don't address sufficiently, apart from access to medicine. One instance of FOSS actually not being able to help the MDGs, or not sufficiently at least, which is the area of gender equality. This is something he does know how to address. There are some positive steps. There are groups such as Linux chicks and various other groupings like that, but this is a real issue that we must confront in the Free and Open Source Software world, and find ways out of.

Ms. NNENNA NWAKANMA :

ENTREPRENEURSHIP, EDUCATION AND GENDER EQUALITY

Nnenna, narrated her real life experience of working in African Development Bank and how proprietary practices of the bank with respect to knowledge that could have benefited from sharing made her think hard about alternatives. Then she got into the open source movement, and has been following this for decades and came to this panel called, "Steady steps". She has world wide experience on a number of issues related to FOSS but concentrated her remarks on Africa. While making a reference to an audience member Makane Faye from the ECA which is also the Secretariat of the Africa regional action plan on the knowledge economy wherein Africa is looking forward to when its economies will transition into a knowledge economies. In some countries, like Senegal, 6% of the total national production is already coming from digital and digital-oriented issues. So most countries in Africa are looking towards a digital economy, a knowledge economy, and no longer

information society. Looking at it from the economic point of view. She remarked that gone are the days of "Closed data", or, "Non-open data", days, as now the African development bank has actually launched an open data initiative. She took great pride in seeing such openness along with various other organizations. The E C A itself has put out its repository and most of this information is now available. And if you live in the developing world, you will recall that information availability and access to development information mostly used to be a headache in those days for researchers, for anyone working in the development arena, and so the open data movement itself may have been one of the biggest policy gains in the drive towards Millennium development goals in terms of open source. Of course, Morocco is the country that first started an open data drive in the continent, and now open data.gov in Kenya has gone really big. We have some other open data initiatives across the continent, and she looks forward that maybe by the next IGF in Indonesia we won't be talking about steady steps, Madame Chair, we'll be talking about giant strides.

Cloud computing has been one of the greatest emerging issues around the IGF, and software as a service, and, innovation and all of that that turn around cloud computing. Nnenna remarked that without open source and that collaboration that exists there would be no talk of cloud computing today. Today, a big chunk of our desires, our global economic desires is actually hinged on cloud computing.

However, teaching and learning, may be one area that has been -- hasn't been mined as it should be, but in the next few years teaching and learning, she hopes this is going to be the biggest point in the use of open source, especially as it concerns universal primary access to education. Now we have moved from the concept of a student and a teacher to a guide and a learner. Now everyone is learning, and everyone is sharing, so open source has revolutionised teaching and learning in different ways, virtual learning, open learning, massive online education content while contributing to the MDGs

in a big way.

She talked about her own education and experience with copyright restrictions that limited access to knowledge and education. She told about the huge push from UNESCO and all of the open education resource global movements, which is making availability of content easier for anyone who wishes to achieve an education. With Wikipedia, or Wiki educator, with Open Education Resources, she thinks that the content battle is almost won.

She talked about a largely ignored yet extremely important development in Africa that will prove to be crucial in the next few years: the birth of hubs, innovation centres, co-working space as are places that use the open source phenomena are becoming the new innovation centers. One only needs to see what the youngsters are upto in these innovation labs on their own using the concept of collaborative innovation. She also mentioned about the advent of the Africa Innovation Award. She rounded the discussion by addressing the important issues of transparency and partnership. She pointed out that governance itself is revolutionising with the push coming from different places. The push coming from open data, the push coming from community participation, the idea that citizens have a say, and thinks that this is one thing we need to look forward to, because without openness and transparency in governance, we will not make the giant economic leap. The open source philosophy of openness, of equity and equality, will lead us to the achievement of the MDGs. She thanked the Indian Minister who says we're looking forward to move from an Internet to an Equinet.

Finally, she addressed the gender issue brought up by another panellist. From her personal experience of having no technical background to turning into a successful entrepreneur. The ease of availability of learning tools, source code and the help of community made her learn HTML on her own, then Python, Pupal and now she is a serial entrepreneur. She thinks FOSS is an enabler as it makes it easy for women who also have families to follow their dreams, become entrepreneurs , contribute code and participate in other forms of collaborative innovation and the FOSS movement, thus imparting equality

to women.

She emphasized that Code or technology is gender blind, if the code works , if the bugs get fixed, it does not matter whether it was written by a man or a woman. If we are looking forward to MDGs, we need to look forward into bringing women, men, children, innovators into the mainstream, and the basic factor we can have here is open source in policy, in schools, innovation, and promote economic growth around it. It should be emphasized that even non-technical people can benefit very largely from FOSS while taking care of their families and other interests.

Mr. YVES MIEZAN EZO:

Focused on FOSS and Entrepreneurship and FOSS in Academia.

Yves who lives in Paris and Africa presented a vision from a business perspective which could spread between two different places—France and Africa. He said that in the north there are a whole lot of businesses that are running open source, and some of them having over 10,000 employees, and some on a smaller scale wherein the average number is around 70 employees., but the bigger chunk of them have one or two workers. When you cross the Mediterranean and begin to come down into Africa, they are not very big and the biggest business he has known had a turnover of USD 2 million .He attributed this to the weak ecosystem in the South, which meant that the economic contribution of open source companies to the national economy so far in Africa is weak. He advised that the discussion should be how to move to FOSS entrepreneurship? How to increase the capacity to do mass education, and to integrate our technologies in economy.

For entrepreneurship: the need has to be matched to the available expertise. An expertise that is not hidden behind in black box for example in messaging solutions. We see now that things are changing, and solutions that have been provided are more user friendly. So we are talking about content management systems on E-learning, and higher solutions that are called ERP. He said that in

recent times the solutions that have been brought in by the services are cross-cutting solutions, so what this means is that we are no longer doing tech for techies, we're doing tech for everyday person, for agriculture, for schools, everyone who needs a solution gets a solution. He referred to the Open Street Maps project. The idea of open street map is to use agriculturists and give them a certain number of capitals, so it is the farmers themselves who will contribute to the mapping. He also talked about data mining and the idea behind data mining being to create statistics so that once this mapping is done, everyone can benefit from the data, whether they are from commercial companies or they are from other places, including governments, education sector and others.

The solutions in the realm of mobile have brought citizens face to face with the government via e-governance solutions and has allowed the citizen to be in the center. He quoted the example of Senegal, which has started, the government intranet. The original idea was to bring citizens directly into contact with government, but it is only now that this has been deployed. It is a zone-based technology. As per him the idea is to lay before us solutions that are known, and have been respected, and share with us results that are not necessarily technical but show how such developments have impacted other aspects of life. He concluded by saying that the original image of FOSS has been transformed and it is a internationally recognized force, economically and socially.

Mr. SATISH BABU:

Focused in Government (Open Data, content etc)

With a long career in FOSS behind him, he started by emphasizing that the discussion not only covers FOSS but also open data ,content, standards, it is open access. Also a range of new developments in the spaces like publishing, music, literature, open access, hardware, et cetera, are coming up pretty fast. We have seen quite a bit of traction emerging out of governments and society. Of course, business is always majorly behind open source. For example in India the 2012 government of India's

official policy mentions open source as something that needs to be supported and promoted and various parts of India have been at the forefront of using FOSS for their E-governance initiatives. He emphasized on the various new developments in the educational sector where the latest development is the massively open online courses. He said that in his experience, FOSS isa natural fit with Small and Medium Enterprise due to the costs, ease of change and other related flexibility in usage.

He addressed the issue of gender equality and stated that technology, in the last couple of decades is increasingly empowering women. He pointed to a discussion held in another workshop during the IGF wherein large number of examples were given on how women are using mobile phones even to obtain and maintain their pre-natal medical information via SMS. FOSS is not just for developers or people who are quasi-developers but largely for the user community, technology in general, and open source in particular are actually providing more and more solutions by which they can be better integrated into society, including for things like occupational mobility, which means getting flexible kinds of work done, even while they are at home, like home-based workers. He observed that as per his experience a lot of progress has been done to the issue of empowerment of women due to FOSS and there could be even, of course, more progress.

He brought into discussion another area that had not been touched upon so far, that of environmental sustainability. Although, the language referring to climate change in its current form was not in use when MDGs were developed, but today the environmental sustainability is also intertwined with climate change, and there has been a lot of application of free and open source in climate change, in adaptation mitigation, monitoring, aspects of change. Open source hardware, software and the idea of collaborating and producing has given birth to the concept of hacker space-- maker space movements which are now coming up in a big way, where young people and older people also, are sitting around in rooms building stuff, using their hands, using open source components and software. If the same principles can be applied, even to things like agriculture, it

would bring wide reaching changes. He informed that in India the farmers want to take up precision farming, which optimizes the use of various resources by precisely monitoring them, and then of course controlling those resources, and that requires hardware sensors, it requires a lot of playing around and the software, and this is a perfect fit for the open stack.

Open access publications, the emergence of open access journals has paved the way for the next big thing. As it actually addresses a very central problem in scientific publishing – most publishing of government-funded research is locked by people who, for various reasons including economic reasons or other reasons prefer it to be this way. The future of FOSS has also to do with open democracy itself, such as use of open source solutions for voting. Now , we should contemplate what could be done in future not just for open source software but for society at large, that perhaps we could use these technologies for bringing real democracy to various parts of the society.

MR. FERNANDO BETELHO (Remote Panelist)

Focused on FOSS and ENTERPRENUERSHIP

In Fernando's video, his presentation focuses on how FOSS lowers barriers to innovation, especially among small companies, how such firms are able to innovate and grow through interesting business models made viable through FOSS, how governments can encourage this dynamic, and how this virtual circle attracts investment, since small companies that are growing are the best way to attract investment. He uses F123 experience as an example.

The video can be downloaded on the link below.

https://dl.dropbox.com/u/15789352/FOSS%20and%20the%20MDGs-Fernando%20Botelho-Baku%20IGF-Nov%202012.MOV.zip

QUESTIONS &ANSWERS

These individual presentations were followed by Q&A. However, due to paucity of time the Chairwoman advised most of the audience members to speak to the panellists after the workshop and took three questions.

QUESTIONS

Question 1: I am from Columbia. I very much enjoyed listening to the panellists and think that what all is being done in India and Africa is the best way to improve technology and access. But when I think of Latin America, the situation is very different. For example, usually we have education programmes which use a proprietary software funded by the Government who pay huge licensing fee to the proprietary companies, so I want to ask how to educate the government about FOSS and improve relationship with government while convincing them to use more FOSS technologies for the betterment of social and educational programs?

Question 2: Hello. My name is Ben. Interesting presentations. I have a couple of questions to the panellists. The first one is whether the panellists have considered any sets of indicators that would help us gauge progress towards achieving the Millennium Development Goals using Free and Open Source Software? The second one is whether you have considered that does your particular applications in your country context contribute to achieving the MDGs and if that is so, how?

Question 3: I'm from the free software movement in Brazil, and it is more of a rhetorical question for all of you, so free software is all about giving, sharing and learning, and so if it is given that you gain, then will it be true to say that the IGF ecosystems can learn a lot from the most successful multi stakeholder environment ever created in the human history, that's free software, do you agree ?

ANSWERS

All the panellists attempted to answer some or the other aspect of the questions posed. We state

herein, their responses.

MARK -In order to encourage FOSS and education, we explicitly put money or funds back into the educational industry   in developing content which can be used to promote   Information Communication Technology in education. We've explicitly stated that this content is available under a creative commons license so we spend millions in developing something and giving it for free so that people can use it, share it, modify it.

MISHI- The question about the curriculum being filled with mostly proprietary technologies is not just a Latin American problem, that's everyone's problem. This   is   because proprietary software companies have been very active in making sure that their technologies become an integral part of children, education, government and industry no matter the quality of their product. However, FOSS evangelists have been active as well. To government's arguments like job creation has greater appeal than oh! yes, let's go and change our education system. India is slowly realizing and asking a relevant question, that being "are all our engineers going to be mechanics who can tinker with only one particular kind of software, how relevant are they going to be and how innovative is that industry going to be?" That has appealed to policy makers. Free Software foundation, India has been engaged with the National Council for Educational Research and Training (NCERT) in changing the school curricula and they have succeeded in at least being able to take out the mandatory proprietary software guidelines from those curricula . This is not easy work. It is an organic process wherein people who have achieved success based on FOSS have to contribute back to the ecosystem, academics and scientists have to come together and policy makers have to take a comprehensive decision.

NNENNA- Sets of indicators. I'm not very sure, because when we talk about open source, it is not just the code and the solutions being run, everyone here came by plane and when you were boarding the plane you didn't insist on verifying the plane by yourself, going into the cockpit, checking who is

there, the captain and all of that. You just know that this airline works and the planes leave on time, you wan to know does my luggage arrive, whatever back office work that is used to manage the transit of the luggage is not your business, as long as you step out and your bag is there and you pick it up. That's the way I like to look at technology and that's the way people need to look at technology. We don't care whether it is written in PHP or whatever, as long as it works, and that's what is happening today, and the client want to see that the solution works and it does what it needs to do and when I need support I get it, I get it easily. So, I'm not sure that we want to take the open source part out of it, and want to do a set of criteria for it, but I do agree that we need to monitor our input into the MDGs, because finally we need to evaluate where we've been. Yes, yes, yes and yes, and please take back this message from Brazil, that you have been an inspiration to the whole of the open source movement globally.

Columbia. I wish you didn't ask that question, because you know that I know that we know what the problem is. The problem is that the people who take the technical decisions are not the people who take policy decisions. Everyone knows the great potentials of open source in education, the great potential of open source in industry and all of that, but the guy who signs the deal in front of the media is not talking to the open source people. This big player comes and says --we're giving your schools USD 4 million in education support. The Minister will sit up and they will write the speech for him and he will make it in front of the national television. He has no idea exactly what it is that USD 4 million. Basically, the dollars are going into first-year provision of machines and software, okay? That's year one. Year two, they will ask you to pay 25% of licence. Year three, well, you know this thing has been around, but can you pay 50%? By year four you don't see the same personnel -- they have changed the Country Manager, they have changed the guy who signed the deal with, and you are paying 100%, and at this time, you are tied in hand and foot, and you just have to pay. We've seen all of those, and when the plan comes to an end and the countries want to renegotiate, they make it very difficult for these countries to renegotiate. So it is a marketing strategy. I don't blame big

marketing organisations who sell proprietary software, and I don't intend to blame them. The people I blame are the people we elect to protect our interests and to make sure that the meagre resources we have are used in the best possible ways, and if you do recall, the more open a country gets, the more open source the country gets. In Africa we have had two different countries that have taken two different approaches. I apologise if I inadvertently offend anyone. We had one country that went boom on the media. We have approved an open source policy in the country. It has gone to the government, and then we have one year of open policy, lovemaking with the open source movement, and after that, nothing. Okay? And we have this other country who says, "We don't want to make big media announcements, we want to take it one step at a time. We want to apply it to our people. We want to begin one step after the other, and this is what we see today. That country has taken over in industry, in innovation, in business applications, in citizens, and I'm talking about South Africa and Kenya.

YVES- I'm just going to add to what Nnenna has said. If our strategies have not been working, let's show things by example, and take the example of Brazil, for instance, in 2005-06 they put in place a policy for the integration of all university servers, and so they started with the servers and then up to the desktop level, and if this example is not enough, and I have others. Mandriva was the only French distribution of Linux and they were losing strength and actually were going to wind up. On February 24, 2005, Mandrakesoft acquired Brazilian Linux distributor Conectiva.

PRANESH- Just to take forward Nnenna's comments about the metaphors and about planes, right, well, if you think in terms of trains, well, I see the rail cars as free software, so let's have an ecosystem where anyone can make those cars and the railway track as the open standards, there have to be some minimum so that those cars can function, right? You need free software, you need open standards and for especially now with cloud-based services, you need open APIs to be able to move your information around from one location to the other, and just to answer the question by our

friend from Brazil, network governance and Internet Governance is something that people have written about as part of the IGF. Seeing what best lessons we can get, we can take from free software project management, and how we can apply them to larger governance structures so that's an area of interest.

CLOSING REMARKS:

SATISH BABU

The first point is about the strategy that you deploy to sell the idea of open source to the government. In India, at least in the state of Kerala we have converted all the government schools, that's about 2,000 schools with about 500,000 children, to Linux, the strategy that was adopted was not to lobby the Minister or the bureaucrat, it was actually to lobby at the grass-roots with the teachers. They got the teachers convinced, and then there was this bottom up transition that took place. I mean the Minister, or the bureaucrat that point was irrelevant, because the teachers decided to convert to open source, so I agree that it is a long way, it is not a short way, that it is along haul, but once you do that it is very sustainable because as long as the teachers could support it, the programme shall run. Today, this program is in its seventh year and continues to run without any problems, despite changes to the government, so the top may change, but it is here and it will be sustainable. I suggest please don't foreclose your options. There are strategies and there are strategies.

There are discussions around the IGF about a 19th and 20th century legal frameworks trying to govern the technology of the 21st century and finding it very difficult to cope, that we should therefore, like the universal declaration of human rights perhaps start thinking about the universal declaration of Internet rights which is somewhat different and forward-looking. Hopefully such

frameworks will also help us address   questions like how to convince our governments. So when you have a new kind of a framework that is futuristic, forward-looking, perhaps we'll be there.

CONCLUSION

Mr Babu and Ms Okite closed the session by thanking all the participants and apologising for not being able to carry the passionate discussion forward.

Overall, the panel discussion brought forward various point of views from different sectors, those of technology industry, legal industry, entrepreneurs, civil society organization, governments and teachers. In order to achieve the Millennium Development Goals such as Universal Education, Gender Equality, Environmental Sustainability and Global Partnership with the help of technology we need Free Software, we need Free Hardware we can hack on, we need Free Spectrum we can use to communicate with one another, without let or hindrance. We need to be able to educate and provide access to educational material to everyone on earth without regard to the ability to pay. We need to provide a pathway to an independent economic and intellectual life, for every young person, man or woman, rich or poor, whether living in a developed or a developing nation as in tough times, we all must collaborate and innovate together. Further, FOSS is now going to join a big river of Internet Freedom and without free software there cannot be any free internet. Thus, FOSS should be an integral part of any debate that talks about internet freedom.