

# **RAPORTEURS' REPORT**

**THE FOURTH AFRICAN CONFERENCE ON FOSS AND THE DIGITAL COMMONS**  
**(IDLELO 4)**

**VENUE: GHANA-INDIA KOFI ANNAN CENTRE**  
**FOR EXCELLENCE IN ICT (AITI-KACE)**

**DATE: MONDAY MAY 17 TO FRIDAY MAY 21, 2010**  
**THEME: 'DEVELOPMENT WITH OWNERSHIP'**

**RAPORTEURS:**

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## **INTRODUCTION**

This is a comprehensive report on the Idlelo4 Conference held at the Ghana-India Kofi Annan Centre of Excellence in ICT (AITI-KACE) in Accra. The Conference was held under the theme “development with ownership.” Organisers of the conference were FOSSWAY and AITI-KACE, sponsored by Government of Ghana, FOSSFA, AITI, ECOWAS, Zain, and Inwent. The report provides a background and a summary of events of the Idlelo4 Conference; the pre-conference, the community summit and the main conference which was held from Tuesday May 18 to Friday May 21, 2010.

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## **1.0 EXECUTIVE SUMMARY**

The Fourth African Conference on FOSS and the Digital Commons dubbed IDLELO4 was held at the Ghana-India Kofi Annan Center for Excellence in ICT (AITI-KACE) from Monday May 17 to Friday May 21, 2010. Under the theme “Development with Ownership,” the Conference was a rallying point for ICT expertise, exchange, showcasing, innovation, training and projects.

The conference drew a wide array of participants from around the world including participants from Greece, Venezuela, Spain, Mozambique, South Africa, Kenya, Tanzania and many other African countries. Some of the presentations and discussions focused on cloud computing, FOSS in African education and case studies of African FOSS Business. In all a total of 21 presentations including panel discussions were held at the conference.

The first day of the conference witnessed the opening ceremony with addresses by the Minister of Communications, Mr. Haruna Iddrisu, the Director General of AITI-KACE, Ms. Dorothy Gordon, the Chairperson of FOSSFA, Ms. Nnenna Nwakanma, Mr. Emmanuel Amammoo-Otchere of Zain Communications Network, Dr. Sola Afolabi of the ECOWAS Commission and Jon ‘maddog’ Hall, Executive Director of Linux International.

Speakers at the conference were mainly ICT experts such as Mr. Katim Touray an International Development Consultant, Dr. Shahid Ahktar, Dr. Sola Afolabi and Mr. Cliff Schimdt among others.

The aim of the IDLELO4 Conference was to introduce and educate participants about Open Source Software. The conference also provided a platform for existing FOSS users to share experiences with others and to discuss ways in which problems/challenges facing the use of Open Source could be addressed.

Captured in this document is a description of events as they occurred at the Conference.

## **2.0 IDLELO4 PRE-CONFERENCE TRAININGS**

A three-day Pre-Conference Training preceded the Fourth African Conference on Free and Open Source Software (FOSS) and the Digital Commons (IDLELO 4). The training sessions took place from Thursday May 13 to Saturday May 16, 2010.

The objective of the Pre-Conference Trainings was to enable participants maximize their learning opportunities and to provide them with a better understanding of what the main Conference would be about. Courses offered included: Open Source Migration, Chisimba + PHP Web Effectiveness, Foss Business Model Training, Internet Protocol Version Six (IPv6) Training, Diving into Ushahidi- Disaster Management Software, Internet Governance Policy training, Campware, Linux Desktop Training, The Future of the Internet, FlossInclude Workshop and OpenSe/ict@Innovation Pillar C Workshop.

Approximately 100 participants were involved in the training sessions. As expected, there was a strong local representation given that about 50% of the participants were Ghanaians. Also present were individuals from Nigeria, Togo, Cote D'Ivoire, Mali, South Africa, Zambia, Tanzania and Uganda. Others included Botswana, Ethiopia, Sierra Leone, Benin, Egypt, Gambia Mozambique, Netherlands, Spain, Greece, Venezuela, Serbia and Italy.

Generally, participants were pleased with the turn of events. Comments were made as to how well the sessions satisfied their quest for knowledge about the Open Source software. However, there were

complaints concerning the speed of the WI-FI and air conditioning systems. Participants suggested faster Wi-Fi and cooler air conditioning systems next time.

Trainers included:

- Assirou Kassim Kouadio – FOSSFA
- Paul Scott – AVOIR Project, University of Western Cape, South Africa
- ict@innovation Trainers – ict@innovation Project
- Nicholas Kimolo – The Commonwealth of Learning, Canada
- Trainers – 6 Deploy, E.U., AITI-KACE
- Henry Addo – The Ushahidi Project
- Trainers – DiploFoundation, Malta
- Trainer – The Media Development Loan Fund, Czech Republic + FOSSWAY
- Trainer – The GNOME Foundation, USA
- Ben Akoh – The International Institute for Sustainable Development, Canada
- Resource Person – FLOSSInclude Project
- Resource Persons – OpenSe and ict@innovation Projects

Despite a few setbacks, the pre-conference trainings were a success as they offered participants a platform to have their questions answered and discuss issues concerning the Free and Open Source Software.

### **3.0 COMMUNITY SUMMIT**

At the end of the pre-conference trainings, a community summit was organised on Sunday May 16, 2010. The summit began with introductions by each participant stating their country of origin, their organization and their area of expertise. Approximately 40 participants were present at the summit. After introductions were made, Ms. Nnenna Nwakanma, Chairman of Free Software and Open Source Foundation for Africa (FOSSFA), explained that the community summit unlike a conference offered participants the opportunity to interrupt a speaker in order to comment or ask questions at any point during a presentation. Brief presentations were made by some participants concerning projects they were involved in. They shared their experiences; the challenges and lessons learnt. In all, a total of nine presentations were made.

After this, participants were given the chance to ask questions and comment on the presentations that had been made. Participants then broke off into groups of four to have discussions on topics that came up during the presentations. At the end of the group discussions, Ms. Dorothy Gordon led a wrap up session where a volunteer from each group gave a summary of what was discussed. The first group's discussion was on access in rural areas. They talked about promoting access and pushing for deeper bandwidth in rural areas. The volunteer from the first group stated that it was important for software developers to seek the views of the local people so that they could develop software that would suit their needs.

The second group discussed the Ushahidi project. Their representative talked about the use of the software in monitoring events. He touched on his experience of using the software in monitoring the

earthquake in Haiti where he and his company worked in partnership with a mobile phone operator in the country. He also noted that the simplicity of this software had the potential of encouraging citizen journalism as it helps to collect information from the rural areas.

The third group discussed the potential of translating and publishing software into different languages. According to Group 3's representative, they have a project going which is currently working on translating Gnome and Fedora into the Ghanaian language, Akan – Twi.

In the fourth group, the Free and Open Source software was discussed in general. They talked of its use, the benefits and challenges of the software. This helped first timers to have a better understanding of the Open Source software. The representative in this group stated that unlike the proprietary software, Open Source can be downloaded for free. He further explained that the Open Source is all about freedom; freedom to be innovative and add ideas to the software, freedom to multiply the software and distribute it to others and freedom to learn from the original developers because it offered others a chance to find out how the software was actually designed. The representative also stated that it is essential that all open software user groups in Africa should link up and work together.

In her closing remarks, Ms. Dorothy Gordon encouraged participants to apply to be FOSSFA members. She also touched on the development of IT solutions that would make sense to the rural people and that online discussions around this set of issues should be developed.

OMATEK, one of the sponsors/partners of the programme offered participants a tour of their company during a break-out session.

#### **4.0 OPENING SESSION: MONDAY MAY 17, 2010**

The opening session started off with a welcome address by Ms. Dorothy Gordon, Director General of the Ghana-India Kofi Annan Centre for Excellence in ICT (AITI-KACE) and a member of the FOSSFA council. She expressed gratitude especially to the Minister of Communication, Honourable Haruna Iddrisu (who took the stead for the Vice President as he had pressing matters to attend to), for accepting the invitation to be part of the IDLELO 4. In her address, she gave a briefing on what AITI-KACE was about. She explained that AITI-KACE was established on the belief that developing countries such as Ghana, Nigeria, Cote d'Ivoire and Togo can also own technology required to meet ICT development needs. For this reason, FOSSFA exists to ensure that the Open Source Software is shaped to satisfy their needs and requirements. She believed that FOSSFA could leverage on the power of the Internet to reach the masses so that people would know of the benefits of Open Source Software.

Taking her turn, Nnenna Nwakanma, Chair of FOSSFA gave a background and overview of FOSSFA and what the IDLELO4 conference was about. She touched on past IDLELO Conferences which were held in South Africa, Kenya and Senegal respectively; their challenges, setbacks and the way forward today. She explained that as the name suggests (Idlelo is a South African word which means 'common grazing grounds'), the aim of the conference was to share ideas and discuss issues surrounding the Open Source Software with Africans and the world in order to empower them with the unique advantages and benefits that the Open Source Software has over the proprietary software. In her closing remarks, she expressed gratitude to Miss Gordon for allowing the conference to take place at the Ghana-India Kofi Annan Centre of Excellence in ICT. She further expressed gratitude to the

Government of Ghana, especially the Vice President for allowing the conference to be held in Ghana. She expressed appreciation to ECOWAS, INWENT, Zain, the Government of Kenya, the Communication Commission of Kenya, the Government of Brazil, Deutsche Welle, Linux, FLOSSinclude, Omatek, ICT@ Innovation, Fedora, UNDP, the Association of African Universities, National Communications Authority (NCA, Ghana) AITI-KACE and all those who had provided some sort of support to the IDLELO4 Conference.

Giving his address to the audience, Mr. Emmanuel Amamoo of Zain Communications, Ghana, congratulated FOSSFA on the successful organization of the IDLELO4 Conference. He mentioned that Zain was committed to contributing its quota towards the creation of a borderless approach to communication and also committed to encouraging the adoption of the Open Source Software. He added that Zain would take this opportunity to adapt and customize their software to solve customers' complaints and problems.

Taking his turn, Jon 'maddog' Hall, Executive Director of LINUX International expressed gratitude to FOSSFA for inviting him to be a part of the IDLELO4 Conference. In his address, he touched on his experience in Soweto, South Africa, where he had the opportunity to introduce Open Source Software. As expected with every new product, initially, there was some resistance but after a series of investigations and workshops, the youth in S.A started to make use of this technology to create their own businesses. He further explained that the Open Source Software had caught on well with the youth because the Open Source Software unlike the proprietary software, gave the youth the chance to have total control of the software; the software can be legally downloaded at no cost, is virus-free and there is also no limit on the number of people who can use the software. He also noted that Open Source

Software could minimize the incidence of brain drain on the continent because it could assist individuals to form lucrative businesses instead of travelling overseas to seek greener pastures.

The Head of IT, Dr. Sola Afolabi, from the ECOWAS Commission was next to give his address. Reiterating what the earlier speakers had said with regards to the benefits of the Open Source Software, he added that the Open Source is also an important tool for enhancing good governance. He advised that the Open Source Software should be viewed as a vehicle for accelerated system development in Africa. He wished FOSSFA and all participants, successful deliberations.

In his address the Minister of Communications, Honourable Haruna Iddrisu registered the Vice President's apologies for not attending the Conference. In his capacity as the Minister of Communications he stated that Ghana as a country had been looking for ways in which she could take advantage of the technological innovations that would benefit and help shape the development of its society. He was particularly pleased that an event such as this was being held in Ghana as he believed that the best way to improve governance in Ghana and Africa as a whole was to make use of an e-government platform. In his closing remarks, he encouraged all participants to reflect on the implications of using Open Source Software in developing Africa's economy. On that note, he declared the conference officially opened and wished all participants an enjoyable conference. The official new logo for IDLELO was launched and unveiled by the Honourable Minister of Communications and Nnenna Nwakanma. The logo was designed by Modeste Messou, (from Cote d'Ivoire) winner of the 'Idlelo Logo Competition.'

That night, a dinner was held to officially welcome participants. Awards were also presented to the winner of the Idlelo Logo Competition, Modeste Messou, the African FOSS Reporter winner, Remmy Nweke, and Yao Georges, the Guido Sohne fellowship winner.



## 5.0 MAIN CONFERENCE PRESENTATIONS

DAY ONE: TUESDAY, MAY 18, 2010

### MORNING SESSIONS

#### SESSION ONE – E-GOVERNMENT CONFERENCE

With a wealth of knowledge in the creation and development of international Open Source Networks, Dr. Shahid Ahktar an International Development Consultant and an advisor on governance issues gave the first Keynote address. His address centered on e-government issues. Given that the world was witnessing a digital colonisation, he was optimistic that FOSS would establish a solid software industry where monopoly and piracy would be brought to the barest minimum. He also stated that economic and social development depended on skills building and development. To this end, he recognised that Open Source Software provided a clear-cut approach in the development of ICT skills with regards to the creation of lucrative jobs and promotion of faster technological development through collaborative innovation.

As an example, he cited Vietnam as a country which had adopted and was currently using Open Source Software for most of its governmental processes. He further added that Open Source is currently recognised by many European countries and as at 2007, 32% of the share capital of ICT was FOSS related, thus saving about 36% on IT expenditure because of FOSS. He noted that it was unfortunate that unlike the western countries, African countries were not maximising the benefits of FOSS as shown by a survey conducted by the Georgia Institute of Technology. He was of the view that for Africa to fully benefit from Open Source Software there was a need to establish a FOSS Competency Centre which would provide guidance and support to individuals and organizations interested in Open Source Software adoption as was done in Malaysia. He hoped that by formulating and implementing enlightened policies on standards and software, governments would be able to reduce their total cost, increase security and encourage skills development.

After his address, the floor was opened for questions and comments.

The first on the floor was the Director General of the Ghana-India Kofi Annan Centre of Excellence in ICT. She was curious to know why Africa was still far behind when it came to issues concerning governmental policies on FOSS. Dr. Ahktar explained that not everyone in Africa was interested in FOSS. He further explained that Africans needed to focus more on the benefits and value FOSS offered rather than the cost of Open Source Software.

The Director General of AITI-KACE also suggested that African governments needed to find ways of exploiting the re-use system where software developed in one African Country could be used in another country without major complications.

Mr. Alex Gakuru, Chairman of ICT Consumers Association of Kenya was next to comment. He stated

that in order to get African governments involved in this, it was important to train government officials in ministries and other government agencies on what FOSS is about.

Taking his turn, a representative from Microsoft stated that contrary to views held, Microsoft is actually open to the use of Open Source Software for educational purposes, however, they also need to pay attention to issues relating to intellectual property and piracy. He urged participants and experts in the industry not to impose their opinion on others but rather to present their opinions in ways that would allow others to make their own choices.

In conclusion Dr. Ahktar mentioned that FOSSFA as an organisation needs to adopt a broader vision in utilising Open Source as a true choice of value in order to ensure innovation, localisation and an accelerated development of ICT skills in Africa.

## **SESSION TWO: KEYNOTE ADDRESS ----- COUNTRY PRACTICES AND EXCHANGES**

The address took off with Debora Reis, a Brazilian Government Software expert, explaining what a public software portal was. She stated that the portal is a space where codes, new functionalities, new releases and new language traditions are shared. She explained that the main idea behind using public software in Brazil was to save money. Using this software, gave an opportunity for individuals to learn and acquire knowledge that would enhance their creative potentials. She stated that with regards to the issue of licensing and use of the software, individuals are permitted to copy, distribute and run the software. The Software however, could not be used for commercial purposes. The software which is now being used in Costa Rica, Peru, Chile, Cuba, Venezuela and Paraguay has been translated into English, Portuguese and Spanish with plans underway to translate it into other languages. She stated that the software was designed to embrace a range of subjects including social issues, education, health, water and sewerage management among others. She explained that in Brazil, it was mandatory for all

organisations to use this software and organisations that violated this had to face the sanctions. She concluded by stating that registration to use this software in Brazil was absolutely free; no taxes, no costs.

After the presentation, the floor was open to participants to comment and ask questions.

A participant wanted to find out how Brazil succeeded in getting universities to adopt Open Source. Miss Reis responded by saying that, Brazil started using Open Source in public universities because it was a governmental initiative. They however did not have control over the private universities. The private universities later followed suit as they saw the benefits of using Free and Open Source Software.

Another participant asked how the adoption of this policy had impacted the Brazilian government in terms of economic gains. According to Debora, more jobs had been created in Brazil because nationals could manufacture their own products. This implied that there will be less pressure to import similar products therefore decreasing government expenditure on purchasing software. She added that it had also promoted knowledge acquisition and development because young people could now share innovating ideas on the portal. This resulted in more revenue for government each time these ideas were implemented. She ended by advising Africans to design and buy portals that would suit their specific needs and not necessarily that of Brazil as each country has its own peculiar needs.

### **SESSION THREE: INTERVENTIONS BY COUNTRY REPRESENTATIVES**

This session was chaired by Dr. Sola Afolabi, Head of IT of the ECOWAS Commission.

In his address, the first speaker Nico Elema from South Africa shared his experiences from research he had undertaken. He stated that in 2007, the government of South Africa had approved a policy which

would allow Open Source systems to be used in the country. He stated that the introduction of this policy was greeted with a lot of excitement even though there were problems associated with instituting the policy. Critics argued that the Open Source policy was not really a policy because it had to be backed by an act in order to compel people to obey them. In his closing remarks, he urged African countries like S.A to emulate the example of Brazil in terms of their method of introduction and adoption processes.

Taking his turn Christian Roland of Cote d'Ivoire talked about the use of Open Source in his country. According to him, Cote d'Ivoire started using Open Source as far back as 1999. He stated that university students have the opportunity of using Free and Open Source Software even though there is no public directive as far as Open Source is concerned. He encouraged individuals and organisations in the private sector to provide support to governmental institutions interested in using Open Source Software.

Next was Alex Gakuru from Kenya. According to him, most private institutions in Kenya were well informed about Open Source Software to an extent that a greater number of them were using this Software in their organisations. The interesting thing about Kenya was that even though the government of Kenya had not put any policies in place to enforce the use of Open Source institutions and individuals wanted to use it voluntarily. He ended by saying that so far the environment for promoting Open Source is good but as with everything else there is always more room for improvement.

Babou Sarr from the Ministry of Telecommunication, Senegal also stated that there was no formal policy in Senegal concerning the use of Open Source however there are specific projects with regards to content development and local government administration. He hoped that the recommendations

shared at IDLELO4 would help towards the introduction and implementation of an Open Source policy in Senegal.

Dr. Ojo Johnson African Academy of Languages (ACALAN) explained in his address that Africans had been left out because most software were built in foreign languages making it inaccessible to Africans. He encouraged software developers to utilise local languages when developing software for Africans. In his closing remarks, he urged IDLELO4 participants to act as catalysts in FOSS development in Africa.

In his submission, the Chair, Dr. Sola Afolabi promised that there will be a delegation to Brazil to learn from them in terms of how far they have reached with the adoption of Open Source in their country.

Dr. Dele Ajisomo, CEO of Mandriva Africa touched on the challenges and opportunities for Linux and Open Source applications for education and e-government. According to him, language conversion is very easy and not as difficult as some people make it out to be. Mandriva is currently distributed in 79 languages. Mandriva is an IT management software for windows, Linux, Mac etc. Mandriva works with a lot of governments and organisations such as the Kofi Annan Centre of Excellence in ICT and is looking to work with even more governments and organisations. He stated that Mandriva sends engineers to train people in different countries on the use of Open Source. The CEO pledged that Mandriva will continue to work with FOSSFA to get governments in Africa to make contracts open so that Open Source can be used in carrying out these contracts.

At the end of the presentations, a clear message that came out from both sides that is from the presentations made and comments made by participants was the need to involve the media in policy planning processes. Dr. Afolabi wanted to know how governments could possibly obtain funding for

Open Source. Miss Debora Reis explained using her country, Brazil as an example. According to her, it was not a matter of using money but rather creating opportunities which in effect resulted in generation of revenue for the economy. When free software was first introduced in Brazil, the revenue generated was invested to promote the use of free software country wide. In smaller cities, people offered their support which helped to train local people for them to learn and work on their own without having to be dependent on the larger cities.

**KEYNOTE ADDRESS BY JON "MADDOG" HALL, EXECUTIVE DIRECTOR LINUX INTERNATIONAL, USA**

Before Jon 'maddog' Hall gave his address, Mr. Ken Spann, a representative from Microsoft, was given the opportunity to make a brief presentation. The representative in his presentation said that competition is about organising in order to succeed and Microsoft is up and open to any competition that Open Source brings their way. He urged individuals participating in the session to share the common industry view that software users will continue to see a mixed IT environment of Open Source and proprietary products for years to come.

Jon Hall then took over and began by attempting to clear some misconceptions that people may have about Microsoft. After this he went on to make a presentation on a project he was undertaking. He explained that the aim of the project, 'Project Cauã' was to create sustainable computing jobs. This project began in Latin America and is currently targeting vertical markets such as healthcare, finance, retail, hospitality, real estate and point of sale. In the vertical market, each customer tends to share the same type of software even though there may be various brands of the software. The project is a free software community project and as such will look into the community to help define the possible vertical markets. This project according to Jon Hall would be done using what he calls a thin client. This thin client he says is a cellular modem which uses less electricity, does not make noise, does not

require a fan, has no moving disk, can be left on at all times and has a long life span. The thin client comes in three different sizes and supports Microsoft and apple software. The server is up to industry standard and is very easy to use.

### **PRESENTATION OF RESEARCH FINDINGS: FOSS AND ICT EXPENDITURE IN WEST AFRICA**

Mr. Eric Assiamah spoke about a project on FOSS and ICT expenditure in West Africa. He explained that the project looked at ICT use in the sub region specifically in Ghana, Nigeria, Cape Verde, Cote d'Ivoire and Senegal with a focus on software expenditure (i.e. the amount of money spent on software purchases) in government, private institutions and NGO's. The findings of the research showed that governments need to take ICT more seriously as the future and progress of the countries depend on this. According to him, technology is now very important and African countries need to embrace it in order to bridge the digital divide. Research findings also showed that cost is not such a major factor as they had thought it would be. What was rather needed was internal and external support to promote ICT in the sub region. Another problem that came out during the research which hinders the adoption of ICT in the sub region is the availability of software and the lack of infrastructure to both implement and sustain the use of ICT in these countries.

There were other challenges that the team faced during the course of the research. The major one the presenter stated was the language barrier. Different languages, English, French and Portuguese are spoken across the countries involved in the research and as such the researchers had to hire interpreters to help them overcome this barrier. He concluded by acknowledging all partners involved in the project.

## DAY TWO: WEDNESDAY MAY 19, 2010 – MAIN TRACK: REGULATIONS/STANDARDS/THE

### COMMONS

### MORNING SESSIONS

#### PLENARY SESSION: REGULATIONS/STANDARDS AND THE COMMONS FOR AFRICAN DEVELOPMENT

The sessions opened with a short introduction from Nnenna Nwakanma, Chair of FOSSFA, on what advisory regulations, standards and commons were. She stated that the Commons refers to governance, ownership and oversight by all. She explained that regulations were set to ensure that customers were given quality services and received value for their money. She added that regulations help us to know who actually ensures that service providers are held responsible when they do not deliver as promised.

Standards on the other hand are born out of the sheer will of interested stakeholders and therefore absence usually means that your interest will not be represented. Different nations have different standard boards and organisations seeing to it that proper standards are adhered to. She however noted that there are very few boards with technical committees on IT standards. Currently, there are only three African countries who are active participants in International Organization for Standardization (ISO) indicating that Africa still doesn't have a strong voice when it comes to international standards.

After the short introduction, participants broke out into two sessions. The topics discussed were 'Regulations' and 'Standards, Patents and Copyright'

#### SESSION 1: REGULATIONS

This session was chaired by Mr. Joshua Peprah from the National Communications Authority (NCA) of Ghana. Panelists included Alex Gakuru from the Communications Commission of Kenya (CCK) and

Ken Adu Amanfoh also of NCA, Ghana.

Mr. Alex Gakuru of CCK, made the first presentation. He talked about the regulations in Kenya and explained that generally regulations gave regulators the mandate to enforce these rules. His address stressed that without the regulations it would be almost impossible for regulators to act. He explained further that contrary to views held, regulations exist to promote public interest that is, it is meant to optimize on national interest. He touched on an example in Kenya. He stated that before regulations were enacted, they were released to the general public for their comments via e-mail after which a forum was held to discuss issues raised. Reviews were then made based on the comments and suggestions received. The speaker also spoke on media convergence also known as Networked Communications Environment. He explained that media convergence is the coming together of the various forms of media such as radio, internet and voice on a single platform.

Talking about the benefits and challenges of media convergence and speaking from the point of view of consumer protection, he noted that ICT disputes are not given fair hearings because the judges and lawyers are not conversant in ICT. To address this issue, he proposed that they should be trained in ICT to help them address issues concerning cybercrime appropriately.

The second presentation was made by Mr. Ken Adu Amanfoh of NCA. In his presentation he gave a background of National Communications Authority, touching on its primary objectives as an authority and its achievements so far. To protect the consumers, he stated that NCA had established a Consumer Affairs Directorate to ensure that consumers' complaints are addressed as quickly as possible. In terms of education he said that NCA also had plans to sponsor judges and lawyers in ICT policies so that they can properly address and handle issues concerning cybercrime.

At the end of his presentation, Mr. Adu-Amanfoh stated that NCA also has plans of acquiring a Quality Service Monitoring tool especially for all mobile operators. This, he stated would give consumers an opportunity to state and publicize their views online on the quality of telecommunication services thereby giving others the chance to make more informed choices.

### **PANEL DISCUSSION**

The discussion was chaired by Mr. Joshua Peprah of the National Communications Authority (NCA), Ghana. Questions, comments and suggestions were centered on the presentations made. The presentations and discussions provided an opportunity for discussants to put forward and cite examples that were occurring in their various countries. Some participants spoke on the ongoing regulatory measures in their countries.

A participant from Abidjan, Cote D'Ivoire talked about how complicated their regulatory system was. She explained that unlike Ghana and Kenya, it was the Ministry of Interior that fought against cyber crime and not the communications authority. She further explained that on the regulatory front, there were about five or more organizations that made up the telecommunications council. These organizations include the National Civil Aviation Authority, National Standardization Board, Information and Telecommunications Authority among others. Interestingly, in Cote d'Ivoire it is the Ministry of Interior that fights Cyber Crime and not the 'Communications Authority/Council.' In addition, the Ministry is in charge of all information that goes out of the country whilst the Ministry of Defense is in charge of information that comes into the country.

Like Ghana and Kenya, she believed that the issue concerning training judges and lawyers in ICT was a

case in point. Alhaji Abdul-Hakeem Ajijola of Nigeria made similar assertions about giving ICT training to lawyers and judges to enable them pass good judgments. He added that because Nigeria had the reputation for '419' e-mail scams, the authorities had put in place measures that would address this. He explained that an e-mail monitoring system had been set up to address these '419' mail scams.

A clear message that came out of the discussions and presentation was that the regulatory bodies in Africa had a lot to do in training lawyers and judges as there is a lack of capacity building programmes in ICT law.

## **SESSION TWO: STANDARDS, PATENTS AND COPYRIGHTS**

This session was chaired by Judy Okite, a Capacity Building Consultant from Kenya.

Dr. Shahid Ahktar, an International Development Consultant made the first presentation. According to Dr. Ahktar, it was important for users of the Open Source Software to know that even though the Software was freely accessible, users did not have exclusive rights over it. He stated that although the standards on Open Source Software stated that it could be freely used, it needed to be better defined. He explained that Open Standards are the foundation and this foundation should be free of encumbrances as it is supposed to be inclusive rather than exclusive.

He also gave a brief presentation on what a copyright is. He explained that copyrights gave the owner/developer of software, exclusive rights to promote the expression of his idea which is sufficient to protect the software.

On the other hand, patents give owners the right to prevent others from making, using or offering the product for sale. The protection that patents give is usually stronger than that of copyrights and it guarantees state monopoly. In his closing remarks, he noted that if Open Source is to be successful,

software patents would not be needed as patents could stall innovation.

Taking his turn, the second speaker Mr. Phillip Schmidt drew the attention of his audience to the fact that there were divergent views as to what patents are. He mentioned that there are two common views concerning patents, namely innovation and developmental myths. He stated that there was a need to address this as the link between patents and innovation is seriously flawed. He added that most developed countries today did not obey patent and copyright laws during their early years of development and advised that developing countries learn from them by not placing too much emphasis on patents and copyrights.

The third presentation was by Balthas Seibol, a Senior Project Manager of INWENT Capacity Building International, Germany. Taking his cue from the previous speakers, he stated that economic growth could be achieved through innovation and to that effect, Africa needed compelling innovative solutions. He ended by stating that innovation in his opinion was key to private sector development, therefore, putting too much emphasis on patent and copyright could hinder such progress.

Jon ‘maddog’ Hall, Executive Director of Linux International, explained the complexity of patents and copyright giving a brief explanation of what they are and their importance. He stated that copyrights exist to protect an individual’s invention whilst patents which are normally financed by the government are supposed to create limited monopoly, promote innovation and protect trade secrets of companies. He ended by stating that the issue of software piracy is wrong and should not be condoned in any form.

At the end of the presentations, participants were given the opportunity to comment and ask questions.

Most participants were interested in knowing what copyright and copyleft was. Jon “maddog” Hall explained that copyleft uses copyright law to free products and services.

At the end of the discussion, the conclusion was drawn that although patents and copyrights were important, it was equally important for software developers to operate without patents and copyrights as Open Access provided the unique opportunity for others to learn from what the ‘experts’ had developed.

## **AFTERNOON SESSIONS**

### **PLENARY SESSION: WE THE PEOPLE**

The plenary session which was led by Prof. Kwame Karikari, focused on the advantages of the new technology and its implications for Africans. He believed that the new technology could help in easing the pressure of manual labour in Africa. He stated that in as much as new technology had played an important role in accelerating technology, Africans still faced the challenge of finding ways of using ICT tools to advance the rights, freedom and socio-economic well being of citizens. He advised that Africa needs to boldly confront the cultural challenges that it faces. He ended by stating that Africans need to come together to work as a united front to ensure that the process of ICT integration are adopted into country policies.

At the end of his address, questions were raised to find out why most Africans were not being innovative and were also unable to produce content which was important to drive us forward.

To answer this question, a participant, Mr. Hawker explained that content was not too difficult to make, what Africans needed was the courage to do it. Another participant, Mr. Alex Gakuru, added that many partners in the industry are committed to champion the course of Open Source.

Mr Jojo Imbeah from Ghana gave an example of an ongoing project known as ‘Kasahorow’- an open specifications project for shaping a common set of resources upon which African language technology can be built. He explained that so far about 50 languages have been submitted on the project.

Another participant wanted to know what governments were doing to encourage the production of these technologies. According to Prof. Karikari, many governments face enormous challenges especially in the area of prioritisation of policies. For this reason, he advised individuals and organisations to develop clear-cut policies which address specific issues.

Mr. Remmy Nweke, a journalist from Nigeria asked how the media could optimise the use of Open Source technology in Africa. To this, Prof. Karikari said that they need to embrace it fully and explore the diverse ways in which it could enhance their work.

In her final words on the topic the director general urged professionals present to inform their colleagues about the Free and Open Source Software.

### **SESSION 1: MASS COMMUNICATION, EDUCATION, MOBILISATION AND ADVOCACY**

This session was chaired by Dr. Ojo Johnson of the African Academy of Languages (ACALAN)

First Speaker: Henry Addo – Developer Ushahidi project, Ghana

The first speaker Henry Addo gave an address on Ushahidi and what Ushahidi is all about. He explained that Ushahidi is a Swahili word which means testimony. According to him, the web based application was initially developed during the Kenyan election crisis in 2008. Ushahidi is an Open Source project in Africa used primarily in monitoring crises and elections. Ushahidi started out in collaboration with Kenyan citizen journalists during the Kenyan election crisis. It is a free web based tool to help people outsource information. This information is obtained from reports submitted via the

web or through text messaging on mobile phones. The information collected is verified and placed on a map on the web to help in visualisation.

This same application was put to use during the Haiti earthquake. Two hours after the earthquake struck, the application was set up and local people on the ground sent information through a local line that was obtained. One hundred and seventy volunteers were needed to act on all the incoming information via SMS and micro blogging. All the mass information received was verified and made sense of before it was put on Ushahidi to show on the map. CNN utilised this information during the Haitian earthquake by sending it out to disaster relief teams to help in relief efforts. In a nutshell Ushahidi is a tool to map and monitor crisis.

The next speaker was Solomon Gizaw of the Localization Research Centre, University of Limerick, Ireland. He spoke about localising free and Open Source software in Africa. According to him, localisation is the process of adopting a product and its accompanying materials to suit a target market's locals. After the globalisation and internalisation of technology, the next step is localisation in order to bridge the digital divide especially in Africa. Africa and Asia lag behind in technology and in order for technology to be embraced on these continents, the software must be linguistically and culturally appropriate.

The speaker for the next session was Cliff Schmidt, Executive Director of Literacy Bridge, USA. He talked about the 'one laptop per child project' in Ghana. In his opinion, the Ministry of Education in Ghana did not have enough money to support and to make this project a reality. According to Mr. Schmidt, his organisation, Literacy Bridge had built a programmable audio computer called the talking

book which is an affordable durable audio device designed for people in rural areas used to store information on topics such as agriculture, health, literacy and stories. The device was built using cheap electronics and it is suitable for local experts who want to spread knowledge reliably and easily with no information loss. Local teachers for example complement their lessons with interactive applications and the talking book. The device was built with free and Open Source software. He ended by stating that the project was all about getting information back to the people in their own language.

Joojo Imbeah of the 'KASAHOROW Project', ANLoc, Ghana was next in line. He explained that the 'KASAHOROW' Project is a language project with technology geared at solving the problems of globalisation and localisation. Most software do not take into consideration the different languages that exist across the continent and as such do not suit the needs of the people. According to Joojo Imbeah, software should adapt to the people and not otherwise and that is exactly what the KASAHOROW project is seeking to do.

At the end of the discussion, a participant wanted to know where localisation occurs i.e. whether it occurs during software development or later after the software has been developed. Solomon Gizaw answered him by saying that there are prepared manuals for localisation models for some languages which also provide keyboard layouts for software developers as such, localisation can be incorporated during software development.

Another participant stated that not many Africans are literate in their own languages, in the sense that they may be able to speak them but not necessarily have the ability to read and write in them. He added that the development of such software may not be very helpful to locals as they may not be able to use them. One participant suggested that a language policy should be introduced into the West African sub region for example where students should be educated in their local languages. He also called for a

change from the term local language to national language since these languages are the languages of the nationals of the country.

A participant wanted to find out if Ushahidi is just used to monitor disasters and crises. According to Henry Addo, Ushahidi is not just used to monitor disasters but its use is limitless. He said it was used to monitor elections in Togo where there was no disaster. As long as the information is related to location, Ushahidi can be used to monitor it effectively.

## **SESSION 2: NON-PROFIT ADMINISTRATION**

This session was chaired by Milton Aineruhanga, IT Program Manager, Women of Uganda Network, Uganda.

Taking his turn, the first speaker Mr. Ben Konrath from the Gnome Foundation gave a brief presentation on his organisation. He explained that the foundation has two separate platforms; a development platform and a desktop platform. For the purposes of the Conference, he concentrated on the desktop platform. He stated that the desktop platform is made up of many features which include notifications systems, list of applications such as instant messenger, games, and a desktop where one can create and store files among others. He added that the interface for Gnome will soon be changing explaining that the features of the interface will basically be the same but with a different design. He stated that Gnome organises itself around its users, contributors, and teams which is comprised of several interest groups. Contributors are people interested in promoting the work of the foundation and are welcome to apply to be members if they make significant contribution towards the foundation.

To end, he spoke briefly about the governing structure of Gnome. He explained that the structure of Gnome starts from the bottom with the community which is made up of everyone contributing to Gnome in whichever way or form. Second is the board of directors which is made up of fifteen active

members. Next is the executive director who happens to be the only employee and last is the advisory board which is a critical part of the structure. It is made up of companies and non-profit organisations who have invested in Gnome.

The second speaker was Pierros Papadeas of Fedora, Greece. He explained that Fedora is a global project that has about 5000 contributors around the world. Fedora seeks to develop, maintain and operate a desktop system of translation and other services. This project started in 2006 and it engages people all around the world. Fedora is proud to say that as of now, their desktop operating system is the best operating system in LINUX.

Explaining why Fedora was so sure of its success, he stated that it had an active community and a whole a lot of passion for their project. Fedora possesses an adaptive governance model which is made up of individuals, special interest groups, sub-projects, steering committees a board and a leader. These special interest groups are formed for short periods of time to resolve specific problems. Sub-projects are strictly structured to ensure that projects are actually running properly with strict documentation.

He stated that the steering committees are elected by the members of the sub-projects and usually accept what the sub-project says. The board is made up of five members who operate within a strategic community. Currently, Fedora has about 4000 active contributors.

The third speaker Alex Gakuru, Chairman of the ICT Association of Kenya was the third to make his address. His address focused on the need for advocates of Open Source to encourage people to use the Open Source Software through illustration. He added that they needed to play an active role in monitoring the work of government in ensuring the promotion of Open Source in all sectors of the economy.

After the presentations, a participant wanted to know how LINUX users could receive adequate training on the use of Desktop and Graphic designing. To this, a representative from Fedora explained that there are Open Source tools that provide adequate information on these activities. Fortunately, accessing these tools was fairly easy and the information is quite comprehensive. On how people can be engaged in these projects, the panelists recommended that people should visit the websites for the necessary guidelines.

### **SESSION 3: MEDIA PRODUCTIVITY AND SUSTAINABILITY**

This discussion session was chaired by Katim Touray, an International Development Consultant from The Gambia. Discussants included Thomas Bastian from Deutsche Welle Television, Germany; Brenda Zulu, a Zambian ICT Reporter; Rebecca Wanjiku a Development Journalist, Remmy Nweke, a Nigerian ICT journalist; Keutlwile Leso of Molemi NGS; Patricia Sampson of the Ministry of Communications, Ghana and Collins Awuku a Ghanaian broadcast journalist.

The focus of this session was to find ways in which media organizations and media persons such as journalists could promote the Open Source Software. In his opening statement, Remmy Nweke, a Nigerian ICT journalist, stated that he hoped that Ghanaian journalists would have shown more interest in this session in particular. Nevertheless, he hoped that whatever was discussed will be made accessible to them so that this information would urge those in the regulatory sector to provide training for journalists. One fact that resonated as the discussion went on was the need to train journalists on FOSS so that they can in turn spread the benefits of FOSS as and when the need arose. Brenda from Zambia also suggested that there was the need for FOSS executives to make themselves available to the media. She added that the directors themselves needed to be trained on how to communicate effectively

with the journalists. To this end, it was suggested that FOSSFA should create a monthly newsletter which will capture the attention of journalists and provide them with the needed information. Based on this, it was recommended that, FOSSFA will need to elect a publicity secretary or a press liaison who will address issues in this regard. Brenda Zulu suggested that FOSSFA needed to come out with stronger reasons why a journalist for instance should use the Open Source Software and not the proprietary software.

In his closing remarks the chairman recommended that at the next IDLELO conference, there should be a session that focused on actual case studies; focusing on the benefits and challenges that the media houses and journalists have faced so far using the Open Source Software.

**THURSDAY MAY 20, 2010**

**HIGH-LEVEL BUSINESS KEYNOTE---- JON "MADDOG" HALL.**

In his keynote address, 'maddog' spelt out some of the characteristics of a successful business. These include a comprehensive business plan, and the identification of a suitable market among others. Another important factor is to identify what value the business will add to already existing services.

If we as business people consider Open Source as a means to create successful businesses, we must bear in mind that those who produce the software have the right to make a profit for being innovative. After this however, such software should be free because people are more interested in services than in products. The cost of the Software is in the value and the opportunity it offers individuals to be creative on their own terms.. What makes free software unique is that it allows for modification to meet specific customer needs.

The speaker also touched on licensing and technological advancements with the passage of time. He

explained that with time, the demand for technology will grow and this will give the Open Source technology the opportunity to properly package their services and market them in the most attractive manner.

He concluded by saying that although there are huge challenges in the Open Source community, the fact still remains that Open Source offers its customers unique opportunities that proprietary software does not.

### **SESSION 1 - SUCCESSFUL CASE STUDIES ON AFRICAN FOSS BUSINESSES**

This session was chaired by George Nyambuya, Coordinator, ICT@innovation.

The first speaker, Mr. Brian Ssenogo of Linux Solutions, from Uganda started his address by briefing his audience about his company, Linux Solutions. The organisation was formed in the year 2000 and currently has a total of 15 staff members. It was formed at a time when there was little knowledge on FOSS in Uganda, but with time, it has overcome most of its difficulties and is making significant progress in its quest to popularise the use of Open Source Software.

He explained that the main challenges Linux Solutions faced stemmed from the relatively small size of the company as the companies it sought to do business with had been taken by the bigger service providers who had already carved a niche for themselves in the industry. He concluded by saying that Linux Solutions needed a strong web presence to make significant impact in the near future.

The second to make an address was Keutwile Leso of Future Soft, South Africa.

According to him, FutureSoft was founded in 1998 but started active work in 2008. The company carries out research and development work in Africa which includes website development,

customisation among others. Just like any other SME, he mentioned that the organisation has its own challenges it faces. To this, a participant commented and advised all present to learn to take advantage of these challenges and use them for their benefit. Another participant contributed by saying that business people in the Open Source must learn to use their monetary returns as a tool for advocacy.

## **SESSION 2 - BUSINESS MODELS THAT WORK IN FOSS**

This session was chaired by Dorcas Muthoni, CEO, OPENWORLD Limited, Kenya.

Panellists included Jon “maddog” Hall, Executive Director of Linux International, Christian Roland of Club des Hommes et Femmes d’Affaire de Libre en Afrique (CHALA), Florence Sereki, CEO of OMATEK, Nyimbi Odera, Google Nigeria and Tigist Awoke

What came out of the presentations was that, Businesses that use Open Source have a head start as compared to those that use proprietary software. The panelists spoke about experiences they have had using FOSS in their various businesses. Open Source as a business tool has many advantages. CHALA for example has come a long way since it started six years and its success can be attributed to the use of Open Source software.

Businesses however do face some challenges. Hardware producers for instance suffer when there is a reduction in production costs. One of the panelists recommended that there should be adequate training of individuals especially on the Linux operating system so that the options they seek to offer will not be in vain. OMATEK for instance is striving to achieve affordability and to encourage people to have options.

It also came out that there is a huge demand for services but providers are unable to meet this demand.

Open Source, according to one of the panelists can actually take advantage of the current situation since it is relatively cheaper than the proprietary software. The success of Open Source lies in its

receptive nature and the opportunity it offers its users to be able to give back to society serving as a transformation tool in Africa.

Currently, Google is embarking on a programme known as the Google University Access Programme which is aimed at providing Internet access to all students in Africa. The programme commenced three months ago and has covered about 70,000 students so far.

Talking of advantages of FOSS, it was stated that:

- The software does not have to be developed from scratch
- The software gives good feedback
- Programmes are more responsive to individuals.

Some disadvantages are:

- The software usually answers the developers' needs and does little for the user's needs
- It is also not always possible to buy support for the software
- There is the likelihood of developers losing their software due to the lack of absolute control.

It was also stated that Open Source has however had a lot of positive impact on many economies. It has created jobs, increased competition and led to massive economic savings. It was concluded that, FOSS will be a better option if the disadvantages could be managed.

When given the opportunity to interact with the panelists, one participant commented on the need for Africans to feed our own interests as we partner with Google to encourage the use of the Open Source option. A member of the panel then added that Africa must take the bull by the horn and start creating its own content. OMATEK for instance plans to get other stakeholders, such as the banks, on board in

order to reduce cost. Other panelists contributed by adding that Open Source is a system of realisation and it gives users the opportunity to check the validity of their ideas and create inherent social networks. It gives business people the head start and the competitive advantage due to its cost which is near zero. At present, there is no governing model that determines how much Open Source providers can charge for their services meaning that charging is solely based on the value that an individual contributes to the software.

The chair then chipped in stating that it was necessary to have more players on the playing field and those already there should scout for opportunities for partnerships in the midst of all the challenges. She concluded by hammering on the need for collaboration and interdependency so as to be able exploit all the options that are available to us in the Open Source society.

#### **AFTERNOON SESSION**

#### **STATE OF THE UNION ADDRESS - NYIMBI ODERO – GOOGLE NIGERIA**

Nyimbi Odero of Google Nigeria, started his address by giving some statistics about computer and Internet usage in Africa. According to him, just about 3% of people in Africa have seen or used a computer and 2% of people in sub-Saharan Africa have used the Internet. The amount of data put on the Internet by Africans is 0.1%. He explained that for most people in Africa, Internet is read only. They do not add anything; theirs is to just download information. The question he raised is that looking at this statistics, how many Africans would have even heard about Open Source much more used Open Source.

Africans according to the speaker do not seem to have any compelling reason to acquire technology. For them, it is either not relevant or inaccessible. The penetration of Open Source in Africa is very low and he attributed this to the limited means of distribution of the software. He added that because the

software was available for free some people had taken it upon themselves to download the software with the aim of selling it to others. He explained this is very easy for them to do because a good number of computer literate people on the continent have no idea about Open Source and what it is.

The presenter concluded by saying that it was time Africans took up the challenge of solving their own problems. He also added that there should be more data available about where to obtain Open Source software. Africans should also make it a point to explore the Internet and find out what they can use it for instead of just reading. He said that people needed to change their attitudes towards computing and Internet usage.

#### **SESSION 1: CLOUD COMPUTING: WHAT IS IN IT FOR AFRICA?**

Panellists for this session were Dr. Sola Afolabi from the ECOWAS Secretariat; Paul Scott from Chisimba Developer from the University of Western Cape, South Africa; Alhaji Abdul-Hakeem Ajijola ICT Consultant, Nigeria and Ernest Ofori from the Ghana-India Kofi Annan Centre of Excellence in ICT (AITI). The session was chaired by Ms. Dorothy Gordon, Director General of the Ghana-India Kofi Annan Centre of Excellence in ICT.

The presentations and discussions educated participants on what Cloud Computing is about. From their presentations, it came out that Cloud Computing involves delivering hosted services over the Internet. It also facilitates knowledge transfer and saves cost in that users do not pay for what they do not need. A cloud service is sold on demand and as such users pay for as much or as little as they need to use within a specific time period. South Africa started using Cloud Computing and it has now been picked

up by other African countries. Cloud Computing promotes collaboration and it is a new way of using technology.

Participants were given the opportunity to make comments and ask questions when the panellists were done. One participant raised the point that since Cloud Computing promotes collaboration it would be very interesting and beneficial if Africa had an African Internet exchange which could be shared and used by the whole continent. Another participant asked about the ownership of the Cloud and who has jurisdiction over it. It was explained that users do not have control over the cloud but then the same thing occurs when using a route so there is not much difference.

It was concluded that Cloud Computing is a technological solution and as such should be made available for the people of Africa to use because resources can be centralised and which will be beneficial in the long run. Attitudes will however need to be changed to promote this. Africans must be confident and prepared to embrace change.

## **SESSION 2: APPLICATIONS FOR MOBILE TECHNOLOGY**

Panellists for this session were; Joeri Poesen of Drupal Expert, Senegal, Derrydean Dadzie, Chief Doer, DreamOval Limited, Ghana, Nii Okai Quaye, Developer, Ghana and Samer Azmy of Geek2Live, Egypt.

In this session, the panellists discussed the use of various applications on mobile technology and their benefits. They stated that, mobile technology has many benefits and in-use characteristics. It is portable, mobile, easy to use and can be used in any environment. The added services in mobile technology apart from voice include mobile entertainment, mobile commerce and mobile health. Mobile phones can thus be used for a whole lot more than just making and receiving voice calls.

In addition, mobile technology can fuel innovation. It is also available and easily accessible especially in rural areas. A panellist gave an example of software that he worked on where mobile phones were used by mid-wives in rural areas to attend to pregnant women. This software enabled the pregnant women to receive information needed in the comfort of their homes without having to step out. Another panellist made mention of Open Source Software for mobile devices. The software are mostly run on SMS applications.

Participants who contributed after the panel discussion noted that there are lots of mobile devices around and developers needed to take advantage of this in order to develop more software that could be used in mobile technology. An example was given of how mobile technology was being used as an election monitoring tool. He made mention of how mobile technology played a major role in the Ushahidi project in monitoring Kenyan elections as well as the earthquake in Haiti.

### **SESSION 3: GEOGRAPHIC INFORMATION TECHNOLOGY: WHERE NEXT?**

This session was chaired by Ms. Dorothy Gordon, Director-General of AITI-KACE, Ghana. Panellists for this session were Nico Elema, Director, GIS Global Image and Founder, Government Open Source Resource Center, South Africa, Keutlwile Leso – Business IT Professional, South Africa and Paul Scott, Chisimba Developer, University of Western Cape

In this session, panellists talked about what Geographical Information Systems were and what they are used for. Geographical Information Systems (GIS) utilise maps in analysing geographical data. The power of the GIS lies in the amount of data and information available. Without the required data, the software is virtually useless. The panellists spoke of their experiences with GIS. The software

according to them links locations and as such if information on these locations is not available, the software cannot be used.

GIS enables mobile users to access maps from their phones and can also be used in tracking, for example tracking a fleet of buses. GIS makes it possible to create information on geographical areas of interest and mobile phones can be used to obtain this information.

Participants were given the opportunity to interact with the panel and one participant wanted to know if any of the panellists had been approached by law enforcement agencies to help in their work. Paul Scott said he has had the opportunity to work with law enforcement agency using GIS and it proved to be extremely useful in the Ushahidi project during the Kenyan elections where law enforcement agencies were able to act on reports of violence they obtained using the Ushahidi Software. Another participant wanted to know if GIS could be used in project management. Nico Elema said it is very possible to use GIS in project management but then it will have to be customized and adapted for that purpose.

After the session, Dr. Braimah of the Kwame Nkrumah University of Science and Technology was given the opportunity by the chair to talk about the use of FOSS in his institution. According to him, although universities are fertile grounds for the growth of FOSS, but most ICT training in Ghanaian institutions of higher learning focus on the use of proprietary software. He however said that there are two institutions, one in Accra and the other in Ejisu that are training students in the use of FOSS.

Based on the presentation, the chair then made some recommendations for FOSSFA.

- FOSSFA should urge its donors to consider using FOSS before looking to proprietary software.
- FOSSFA appears too technical. The organisation should make efforts to reach out to other communities such as students studying geography in universities who they can work with.

- FOSSFA should identify problems that need to be tackled and put it out there and see who can solve them. After a period of about a year, the solution to these problems should be made freely available for everyone to benefit from.

**FRIDAY MAY 21, 2010**

**MAIN TRACK: FOSS IN AFRICAN EDUCATION**

**PLENARY KEYNOTE- REPORT CARD BY DAVIDE SORTI (UNESCO).**

Mr Davide Sorti started his keynote address by outlining some of the goals and objectives of UNESCO. These included peace building, spread of education and ultimately the eradication of poverty. He stated that to achieve these goals, UNESCO had established a communication and information centre. The main aim of this Centre was to promote the free flow of ideas using words and images.

He stated that the World Summit on Information in Society (WSIS) had promoted the idea of using software to create and diffuse information for societal use. The ICT in Education Programme is a core activity of the organisation. Many publications have been submitted in this area with varied themes ranging from the formulation of policy to learning.

He explained that the organisation is currently looking for avenues to promote an open suite strategy. UNESCO hopes to push the Open Educational Resources initiative by establishing many more relevant resources and developing a better platform that will allow for better standards to be set. There is also the Open training platform which is made up of an online directory of about 3500+ e-learning courses. This particular platform has many other UN partner agencies which include UNEP, WHO, UNU and ILO

UNESCO is presently revamping its FOSS portal so as to create a space for diving into specific themes that will lead to fostering the exchange of opinions and ideas. Currently UNESCO is supporting India in transforming their public administration system by providing accessibility software and guidelines. It is also striving to move the non-FOSS UNESCO software to FOSS related software. It plans to ride on its strengths of dedicated teamwork, steady budget and unique mandate to make this a reality.

In conclusion, he stated that a team of IT professionals are looking to leverage UNESCO in order to promote FOSS and advocate for its openness.

After the session, the floor was opened for questions and comments. A participant raised concern about donor pulls that obliged developing countries to use proprietary software and the current publicity about UNESCO signing up with some proprietary software providers. The presenter mentioned that the agreement was not actually related to software but rather teaming up with the providers to scale up certain projects. Mr. Akhtar chipped in and suggested that the policies of UNESCO should be clear enough to prevent misconceptions.

Mr. Sorti concluded by saying that UNESCO is committed to its goal of promoting education in freedom and will adopt the best means possible to see that this goal is materialized.

## **FRIDAY MAY 21, 2010 ----- FOSS IN AFRICAN EDUCATION**

### **SESSION 1: FOSS IN AFRICAN EDUCATION**

Chairman- Boubarkar Barry, Association of African Universities

The first to make an address was Mr. Phillip Schmidt, founder of Peer to Peer University. He stated that Peer to Peer University (P2PU) is committed to ensuring a paradigm shift in ideas about education on the globe. The current model of higher education is broken into cost, quality and access. He added that

education has not necessarily changed in the past years but the use of computers and other technologies has created new opportunities for students.

P2PU creates study groups online to serve as a learning option for students. The institution does not replace already existing educational institutions but rather complements them.

Mr. Schmidt appealed to all players in the industry to help build this promising institution by helping it to build a proper curriculum and help endorse certificates.

The second speaker was Milton Aineruhanga of Fixed in Uganda. He explained that Fixed in Uganda is an online programme which is being locally developed to serve as an educational tool for the local community. Many developers are contributing to ensure the success of this project but there is still a lot more that needs to be done if the project is to see immense success.

According to him, the project needs a well spelt out curricular which will aid in the FOSS education as well as its utilisation. Foss is unpopular on the continent because people hesitate to contribute. An issue of security is another reason for its unpopularity and to top it all, most people have little knowledge of it.

Fixed in Uganda is currently undertaking some specific projects to broaden its popularity base and requires increased participation of all players in the industry. He hoped that the idea will be adopted by many more African countries in future as he believed that the foundation is already in place for others to build upon. It can only be made better with collaborative work and excellent documentation. He urged all players to put their hands to the wheel to ensure the success of the project.

Next was Jon 'maddog' Hall. He started his presentation by outlining the goals of education which according to him includes the creation of analytical minds that will lead communities, societies and countries. This, according to him will ensure that the industry will survive and create a lifetime of

knowledge. Education also creates research and for the country, jobs and eradicates brain drain. It makes for a better balance of trade and ultimately ensures security.

Answering the question what different training does Open Source offer students, he explained that students in Open Source do not need to be retrained over and over again. The best way is what Open Source offers- the good code. The FOSS model is not just an operating system but one that provides many more options, liberates the individual and gives him enough room to be innovative. He added that it was not surprising to find that most modern ideas are first being explored on Open Source.

Dr. Joseph Sevilla of Strathmore University, Kenya, gave the next address. According to him, most IT systems in university management are still very limited and do not offer the best service possible. The three main systems that most universities require are; Library Systems, Learning Management Systems and Quality Management Systems. Under Quality management the university may require others such as financial management systems and hostel managements systems. Most of these universities acquire their systems from local and international vendors who sometimes offer these services to them at exorbitant prices.

He stated that FOSS presents mature applications which are developed and maintained by experts worldwide at virtually free prices. What makes the system even more interesting is the fact that there is massive support available for its use.

The University of Strathmore, Kenya has adopted various forms of Open Source Software which have been working efficiently. They include the Kuali Financial System, Koha Library System and Moodle for E-learning.

As a result of this, the university has made massive savings. In his closing remarks, he urged other

educational institutions to explore the option of Open Software in the management of their institutions.

Envar Ravat of African Virtual Open Initiatives and Resources, South Africa gave the next address. He explained that the sole objective of this project is to bring dispersed pockets of skills within a common space and to create an ecosystem where creativity thrives. The project is operated by some important principles which include collaboration, coding and implementation. It is also looking at focussing on other important areas of society apart from education.

Geraldine Bastian briefly spoke on ICT@innovation. She explained that ICT@Innovation is contributing to the Open Source society through education with the aim of building a major mass of people who will have practical hands on experience in their fields.

After the presentations, a participant wanted to know how easy it was for projects such as P2PU and Fixed in Uganda to get recognition and accreditation. To this Phillip answered in the affirmative. However, he stated that it is fairly easier for the developed world to embrace the idea than it is for the developing world.

Another issue that came up was whether certification was more important than competence. To this panelists suggested that we actually need both although more focus should be placed on competence. Jon Hall added that certification is just a brand and all that is needed is to take note of the objectives so that you can learn without necessarily paying money.

At the end of this session, it was agreed that more support in education is needed for the Open Source family to grow.

## OFFICIAL CLOSING CEREMONY

To close the ceremony, Ms. Dorothy Gordon recapped all the activities that had taken place over the past few days. She urged participants to continue to spread the word concerning FOSS in order to help make the Open Source dream come true.

Recommendations and comments gathered include the following:

- FOSSFA should consider a broader base for its policy formulation
- Procurement policies of governments must be monitored and structures must be put in place to see to it that some of these policies are actually put into motion.
- FOSSFA needs to do much more to be spotted as an active organisation for the promotion of Open Software.
- Documentation and training is to be encouraged and other migration sources should be identified
- A control portal should be set up for Open Source projects in Africa.
- There should be advocacy and the strengthening of more of the grassroots movements so as to portray the FOSS community as a more active one.
- An avenue should be set up to track the research work of students to aid in the awarding of sponsorships for such important conferences.
- In future conferences, exhibitions should be more vibrant
- An avenue should be created so as to allow other players to benefit from deliberations of this sort

- Projects which need support to be completed must also be looked at.
- ECOWAS is looking to work with FOSS to increase awareness in the sub-region
- The timing of the conference should be revised so as to allow much more participation.

### **FINAL COMMENTS FROM NNENNA NWAKANMA, CHAIRPERSON, FOSSFA COUNCIL**

The Chairperson, Nnenna Nwakanma, started by introducing the newly elected council executives of FOSSFA. She remarked that Kenya and Nigeria have submitted bids for the IDLELO5 and bidding was now officially closed. On the other hand the bidding for IDLELO6 was now officially opened.

She mentioned that FOSSFA as an organisation will work hand in hand with the media and schools to promote Open Source technology. The organisation will also encourage the participation of women in IT. She added that most people need hands on training on Open Source and FOSSFA will continue to advocate for FOSS.

### **MR. SOZINHO FRANCISCO MATSINHE (EXECUTIVE SECRETARY, ACALAN- AFRICAN UNION COMMISSION)**

Mr. Sozinho expressed gratitude to all who had made this conference a success and for the opportunity to comment at this closing ceremony. According to him, what will make Open Source accessible is linguistic equity. We must ensure that we use language that the people can understand and identify with.

We must therefore think of language as an important tool for the dissemination of information. In his words, “the challenge is to make sure that our Information Technology tools are accessible to many of

our people so that our sustainable development will be a reality.”

## **CLOSING REMARKS**

In her closing remarks, Ms Dorothy Gordon, Director General of AITI-KACE, Ghana expressed gratitude to everyone especially staff of AITI-KACE for making the conference a success. She urged everyone to come together to contribute to the Pan-African Idea of Freedom and Justice. She encouraged everyone to continue to work tirelessly in order to promote the work of FOSSFA.