



Report on:

FLOSSWorld Africa Regional Workshop

Venue, Safari Park Hotel, Nairobi, 23 to 25 February 2006

Organised by

University of the Western Cape
&
Meraka Institute (CSIR, South Africa)



in association with Idlelo



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FLOSSWorld Participating Institutions:

- 1 UM NL: University of Maastricht – MERIT/Infonomics)**
- 2 OII UK: University of Oxford – Oxford Internet Institute)**
- 3 FUND ES: Government of Extremadura –FUNDECYT**
- 4 URJC ES: Universidad Rey Juan Carlos, Madrid**
- 5 USUA Argentina: USUARIA**
- 6 FVL Argentina: Fundacion via libre**
- 7 ISOCBG Bulgaria: Internet Society Bulgaria**
- 8 CERNET China: China Education Research Network**
- 9 CS2S China: China Standard Software Co., Ltd**
- 10 CDAC India: Centre for Development of Advanced Computing**
- 11 MIMOS Malaysia: MIMOS Bhd**
- 12 CSIR South Africa: Council for Scientific and Industrial Research**
- 13 UWC South Africa: University of the Western Cape**
- 14 MI2 Croatia: Multimedia Institute MI2**
- 15 CARNET Croatia: Croatian Academic Research Network**
- 16 ITI Brazil: ITI**
- 17 CAMP Brazil: University of Campinas**

Table of Contents

| | | |
|-------|--|----|
| 1 | Introduction..... | 4 |
| 2 | FlossWorld @ Idlelo2..... | 5 |
| 2.1 | Flossworld, Idlelo & the Millennium Development Goals (MDG)..... | 5 |
| 2.2 | Programme Blending..... | 6 |
| 3 | FLOSS and Government..... | 7 |
| 3.1 | Spectrogram..... | 8 |
| 3.1.1 | Propriety Software is the Answer..... | 8 |
| 3.1.2 | Pragmatic Group..... | 8 |
| 3.1.3 | FLOSS is the Answer..... | 8 |
| 3.1.4 | Solutions that would Enable the Uptake of FLOSS..... | 9 |
| 4 | The Developer Session..... | 10 |
| 4.1 | Spectrogram..... | 11 |
| 4.2 | Table of FLOSS Projects Active in Africa..... | 13 |
| 4.3 | Conclusion with Respect to the Developer Session..... | 14 |
| 5 | Education Breakaway Session..... | 15 |
| 6 | Recommendations and Conclusions..... | 15 |
| | Appendix 1: FLOSSWorld Africa Regional Workshop Agenda | 16 |
| | Appendix 2: FLOSSWorld Research Questions..... | 17 |
| | Appendix 3: Idlelo2 Programme Highlights..... | 18 |
| | Appendix 4: Attendees: Idlelo Applicants..... | 20 |
| | Appendix 5: Slides Prepared for FLOSSWorld @ Idlelo2..... | 32 |
| | Appendix 6: Presentation on Flossworld Africa Regional Workshop..... | 33 |
| | Appendix 7: Additional Slides and Documents Collected at Idlelo 2..... | 34 |
| | Appendix 8: ICT Policy in Africa..... | 35 |
| | Appendix 9: Go Open Source Task Team Conference 22-23 August 2005.. | 36 |
| | Appendix 10: Developer Projects in Africa..... | 37 |
| | Appendix 11: FLOSS in Education Strategy..... | 38 |
| | Appendix 12: Networking Activities..... | 39 |

1 Introduction

The FLOSSWorld Regional Workshop for Africa, was held in conjunction with Idlelo 2, the foremost conference on FLOSS in Africa which brought together people from across the continent (and the world) to assess current status and plot a way forward for FLOSS in Africa.

The Idlelo 2 conference was convened by FOSSFA¹. FOSSFA aims to develop local capacity and create jobs in Africa by developing a FLOSS market initially targeting the public sector in government, health and education, through:

- Encouraging change of policies in African governments to adopt its use;
- Research and Development;
- Product Development uniformly across Africa;
- Local Capacity Building which will translate into jobs creation.

Clearly there is a strong overlap of interests, and the idea was to combine our efforts and gain the advantages of a wider pool of participants (via Idlelo), and develop an international perspective on FLOSS Research and Development (via FLOSSWorld).

FLOSSWorld is a world-wide impact study of free/libre and open source software. At Idlelo 2 the aim was to extend its reach across the continent.

The Africa Regional FLOSSWorld workshop was blended into Idlelo 2 as indicated in Appendix 1: FLOSSWorld Africa Regional Workshop Agenda.

Idlelo 2 participants were invited to volunteer in assisting FLOSSWorld in meeting certain objectives, by attending FLOSSWorld specific sessions, sharing insights, and starting to build a network of researchers for future collaboration.

1 The Free Software and Open Source Foundation for Africa: <http://fossfa.net>

2 FlossWorld @ Idlelo2

The FLOSSWorld Track participants, and others registered as FLOSSWorld collaborators blended into the Idlelo sessions, and each attended at least one of two dedicated FLOSSWorld sessions.

The pre-identified research questions listed in Appendix 2, were circulated for discussion, both in the dedicated FLOSSWorld tracks and, where possible, in the appropriate Idlelo sessions (i.e. sessions on e-governance, software development, and education/ capacity building, etc.). There was insufficient time to discuss all the questions, and a few were selected from each section which were expected to raise important FLOSS issues in Africa.

2.1 Flossworld, Idlelo & the Millennium Development Goals (MDG)

Central to the Idlelo theme were the Millennium Development Goals. FLOSSWorld is ultimately about impact, and FLOSS is an essential enabler for making accessible the knowledge required to meet these goals. The FLOSSWorld team was to engage in Session 8 (on MDGs) with a view to discussing the implications. The research questions (Appendix 2) applied, but with a broader perspective. For example, consider events such as Africa Source (Asia Source etc.) which bring together NGOs and developers for mutual learning. Such activities are implicitly orientated towards the MDGs.

Our task here was to listen attentively and record aspects of the discussions of relevance to FLOSS research, and pro-actively to raise the research questions where needed and relevant. The MDGs became an underlying theme of Idlelo rather than focussed sessions. Appendix 7 includes some slides related to the MDGs.

The rest of this section briefly describes the way in which the FLOSSWorld programme was blended into the Idlelo 2 agenda, and outlines some of the issues surfaced and related discussions.

2.2 Programme Blending

Appendix 1 presents the programme for FLOSSWorld @ Idlelo2 and indicates the blended approach whereby FLOSSWorld participants were required to attend at least one of two dedicated FLOSSWorld sessions, and to blend into the Idlelo sessions to explore the same issues where possible.

Appendix 3 indicates some of the attractions at Idlelo 2 which motivated the decision to blend the FLOSSWorld Africa Regional Workshop into the Idlelo programme.

The important sessions for FLOSSWorld (i.e. the FLOSSWorld-dedicated sessions) were planned as follows:

SESSION 5 (Friday 24th February, 8:30 – 10:30)

FLOSSWorld Research Track: developers, capacity building, education and survey localisation.

The research questions listed in Appendix 2 under “FLOSS Developers” and “Education/ Capacity Building” will be discussed for about an hour, followed by a discussion of survey localisation issues.

SESSION 7 (Friday 24th February, 14:30 – 16:30)

FLOSSWorld Research Track: e-government practices in Africa, surveys and localisation.

The first hour will cover the other questions above (under “e-governance”), synthesising discussions during Idlelo 2. The second hour will focus on localisation, African language/ culture and FLOSS development projects.

Note that not all of the original Idlelo speakers could make it, and the timing of sessions had to be adjusted to some extent on days 1 and 2.

Additional time was set aside on the Saturday for outstanding FLOSSWorld issues.

The following sections outline the FLOSSWorld activities and related discussions.

3 FLOSS and Government

The session started with an open discussion of FLOSS adoption in government as contextual background. In general, although much progress has been made in the last few years on ICT policy development in Africa, FLOSS still does not feature prominently in the ICT policies of most countries. South Africa is one of the exceptions and Appendix 9 (a report on an “Open Source Task Team Workshop” in Johannesburg, August 2005) provides some background to government policy and FLOSS in this country².

The participants were then split into small breakaway groups to discuss issues of FLOSS adoption in government using selected research questions as a guide.

Appendix 8 provides background extracted from some of the slides and documents in circulation at the Idlelo conference, and insights from the discussions including notes on the barriers to adoption identified by the participants.

The session was concluded with a “spectrogram”³ which involves participants positioning themselves physically along a line between two extremes, and then in turn justify their positions. While one person is stating a justification, others may reposition themselves if swayed by the arguments of speakers. The approach surfaced the most burning issues relating to FLOSS adoption in Africa. The section which follows outlines the main barriers mentioned in this session, some of which were reflections of comments made in others.

2 See also: <http://www.oss.gov.za/> (download the strategy document), and <http://www.naci.org.za/floss/> (Free/Libre and Open Source Software and Open Standards in South Africa: A Critical Issue for Addressing the Digital Divide).

3 variation of an approach frequently used in “Source” events (e.g. AfricaSource, AsiaSource, etc.) facilitated by Allen Gunn of Aspiration – <http://www.aspirationtech.org>

3.1 Spectrogram

The exercise started off with two stated extremes: “FLOSS will transform Africa, accelerate the African Renaissance, and lead to Africa's success in achieving the MDGs” vs “We need to be realistic, and so far only proprietary software has the answers for Africa, FLOSS has no real benefits”. The following clusters of opinions emerged, and suggested solutions to the issues raised⁴.

3.1.1 Propriety Software is the Answer

- According to about 40% of delegates in this half of the spectrum, FLOSS has 0% or no impact, Microsoft has the answers
- Approximately 60% of the group were moderate in their attitude toward FLOSS. According to this group only if government acknowledges the role of FLOSS will it reach its potential.
 - This group believed that technology alone cannot make a difference but it rather depends on what humans make of technology for e.g. in order for technology to transform society an enabling environment is required with all sectors of the society contributing to this viz. gender, civil society, government etc.

3.1.2 Pragmatic Group

- Another subgroup at the 50% level, could be considered the pragmatic group, stating when a client wants a thing now, why not offer them a proprietary solution if it's there.” This group highlighted, advocacy, infrastructure, capacity building and support as the major challenges.

3.1.3 FLOSS is the Answer

- Some stated that FLOSS could transform everything. According to this group FLOSS has the potential for transforming Africa because it empowers the users. In this scenario, FLOSS allows a change from consumer to producer. This group believes that FLOSS can revolutionize the world.

⁴ Note that the approach is not regarded as a rigorous technique for producing objective results, but rather a way of surfacing issues in the minds of participants and facilitating discussion.

3.1.4 Solutions that would Enable the Uptake of FLOSS

With participants moving along the line as views changed, the following insights towards solutions were shared:

1. Awareness campaign- leadership to management
2. Cost
 - 2.1 Increased governments funding
 - 2.2 Adopting FOSS solutions e.g. Uganda
3. Support
 - 3.1 capacity building enhances, especially on technical aspects.
4. Development of sector strategies - awareness on benefits
5. Change of roles and training
6. Resistance to change
 - 6.1 Awareness of benefits
 - 6.2 change of roles and training

Interestingly, there is some overlap in terms of challenges for ICT policy in general in Africa. See Appendix 8.

4 The Developer Session

The developer session started by informing the group about FLOSSWorld and its activities and pointed out that one of the stated aims of the project is to determine how FLOSS activities in Africa compare to that of Asia, Europe and the Americas. An additional aim of FLOSSWorld is to start building an international network of FLOSS researchers. FLOSSWORLD is one of the first EC funded projects to include non-European countries (in this case South Africa via the UWC and the CSIR).

Previous findings⁵ were briefly reflected upon, namely:

- Main reason to join community: “to learn and develop new skills”
- Money is not a main reason to join a community... but 30% earn income directly from FLOSS
- 20% earn income indirectly from FLOSS
- Most community developers are not very active (<5 hours per week; 1 - 2 projects)
- <10% developers most active, >20 hours per week, write >70% of all software code
- Members learn many technical skills, basic as well as advanced, and
 - learn many non-technical skills (legal, management/teamwork, general – e.g. English)
- They think they learn most things better from FLOSS community than from formal courses, and
- think employers may accept proven FLOSS participation in favour of a formal degree
- Firms that use FLOSS are more positive about skills learnt from FLOSS communities, but... even firms that don't think FLOSS is important think many skills are learnt better in FLOSS communities than in formal courses
- Both types of firms think that proven FLOSS participation could be accepted if the potential employee has no formal degree (e.g. “wrote a driver for Linux kernel” proves practical knowledge better than University computer science degree?)

The participants as a group did not strongly identify with these findings (perhaps as there were relatively few code contributors among them), but were keen to discuss projects in Africa. Appendix 10 presents a summary of the projects described.

⁵ See for example flosspols.org

Although we did touch on localisation issues, with Ethiopia coming out as a leading country in Africa on localisation, in depth discussions on localisation were left to the dedicated track on this topic led by Dwayne Bailey (translate.org.za – slides available on request, or see Appendix 6).

4.1 Spectrogram

The session closed with a spectrogram⁷ with the two extremes: FLOSS will have a significant, completely transforming impact on the ICT and software industry in Africa, with Africans becoming the most sought-after contributors to FLOSS” vs “FLOSS will have no significant impact”.

Three clusters formed: about 30% felt that there would be no impact (group 1), about 50% felt there could be an impact if we address certain issues (group 2), and about 70% believed that FLOSS has the potential to transform Africa in the way described (group 3). All groups believed that FLOSS has the potential to make such an impact – the variation was a product of their perceptions of the magnitude of the challenges and confidence in Africa being able to meet them.

For example, in group 1, a participant stated that change in Ethiopia is difficult as the country has not accepted opportunities like FOSS, and hasn't been good at grasping them. They will have to work harder to ensure that opportunities are taken.

In group 2, a participant added that it is hard to believe that one solution would change everything as there are other factors that would contribute a great deal as well. These include competition and tactics of proprietary software companies, lack of support and capacity, political will, etc.

Group 3 tended to be more optimistic, “where there’s a will there is a way” but change will not take place over night. They also stated that FLOSS has worked well in libraries and should address the issue of open access for journals. According to Tanzania it won’t be quick as there are no business drivers in Tanzania.

According to the delegate in Ethiopia, Ethiopia is totally different to other African countries especially in terms of language so customization is always required. In addition, the country is very poor and can’t afford to do this kind of customization thus FLOSS should play an important part here.

According to Neil Blakey-Milner, a well known FLOSS developer in South Africa, even if FOSS isn’t the thing that provides the final solution, it can act as a catalyst. FLOSS can help proprietary people focus on African issues as proprietary isn’t 100% incompatible with FLOSS.

In group 3 were a few extremists (100% impact), Both Joris Komen and Bob Joliffe believed that proprietary products have solutions but they aren’t systemic. They argue that in Africa we need systemic solutions. According to Guido Sohne, we are experiencing a progression of regression. In other words future FLOSS impact depends on change of consumption/ production patterns.

The tables below list some of the projects mentioned in the discussion.

4.2 Table of FLOSS Projects Active in Africa

| No | Name | Country | Project | Type Of Funding | LOCAL/GLOBAL | Sector |
|----|----------------|--------------|-------------------------|-----------------------------|-----------------------|------------------------|
| 1. | Enver Ravat | South Africa | AVOIR | Private sector | Local & Global | Education/medical/Bus. |
| 2. | Bob Jolife | Kenya | Care2x | International donor funding | Local & Global | Health |
| | | Tanzania | | Not sure | Local & Global | Health |
| 3. | Joesph Sevilla | Kenya | HR localization Project | Private University Funding | Local | Education/hr/internal |
| 4. | Paul Bagyenda | Uganda | GP Billing platform | ISP Infocom Uganda (ISP) | Local and continental | Telecoms |
| 5. | | Uganda | Celtel Web2SMS | Celtel | Local and continental | Telecoms |

Additional projects mentioned include:

| <i>Project</i> | <i>URL/Comment</i> |
|---|---|
| OpenLab | http://www.getopenlab.com |
| Ubuntu | http://www.ubuntu.com |
| Edubuntu | http://www.edubuntu.org |
| tuxlabs | http://www.tuxlabs.org |
| Education Out of the Box | http://www.developer-roadshow.org/wa/wiki/EducationOutOfTheBox |
| IMPI Linux | Localisation of Ubuntu (South Africa) |
| Localisation: OpenOffice, etc. | http://www.translate.org.za |
| Localisation in Ethiopia is comprehensive | Dawitt Bekele |
| Knowledge Tree: | http://www.ktcms.org |
| Coefficient | http://coefficient.sourceforge.net |
| Kewl.NextGen | http://avoir.uwc.ac.za |
| Free GIS work at UWC (AVOIR) etc. | http://fsiu.uwc.ac.za/gis/ |
| Plone and Zope CMF hosting | http://www.upfrontsystems.co.za |

| <i>Project</i> | <i>URL/Comment</i> |
|--|---|
| LinuxChicks | http://africalinuxchix.org/ |
| Open Content for learning to use OpenOffice. | http://openicdl.org |
| Open Content for learning to use GNU/Linux. | http://learnlinux.org |
| Freedom Toaster | http://freedomtoaster.org |
| Digital Doorway | http://www.digitaldoorway.co.za/ |

4.3 Conclusion with Respect to the Developer Session

Although there are many exciting developments in Africa, the number and scale of initiatives is relatively small. Coordination and developing synergies across Africa is crucial if we are to realise the ambitious visions expressed at Idlelo 2. The trends observed internationally are not clearly apparent yet – perhaps the FLOSSWorld surveys will reveal patterns we don't expect.

5 Education Breakaway Session

Some of the FLOSSWorld team have a specific interest in education and capacity building. The FLOSSWorld project itself states implications for capacity building and learning via the approaches common in FLOSS developer communities. Appendix 11 summarises this session for future reference when we start drawing conclusions that may have implications for education, learning and capacity building.

6 Recommendations and Conclusions

Clearly there is a lot of isolated development in Africa on political, national levels and on the ground among developers with some amazing development projects.

However, the challenges in Africa are significant (e.g. competing issues such as health and poverty, and practical issues such as access to electricity, computers and connectivity, and capacity building for support and FLOSS development).

Nevertheless Africa has a great opportunity in that there is no entrenchment of technologies and approaches, leaving the doors open to adoption of new technologies and innovative approaches.

There seems to be strong consensus that FLOSS is the most appropriate approach for Africa given the current context, and the continent is keen to learn and develop in this direction – rising to the challenges.

Appendix 1: FLOSSWorld Africa Regional Workshop Agenda

See FLOSSWorldProgramme-Appendix-1.pdf attached.

Appendix 2: FLOSSWorld Research Questions

See [FLOSSWorldResearchQuestions-Appendix-2.pdf](#)

Appendix 3: Idlelo2 Programme Highlights

The following indicates selected items on the Idlelo2 programme which contributed to the decision to blend the FLOSSWorld Africa Regional workshop into Idlelo. The suite of speakers and topics provide an excellent contextual background for FLOSSWorld, and some of the sessions provide additional forums to discuss issues of interest to FLOSSWorld.

- Remarks by FOSSFA Secretariat (Nhanhla Mabaso (CSIR), Milton Aineruhanga (WOUGNET), Bill Kagai (Circuits & Packets Communications Ltd)
- Review of feedback from Mailing Lists (Nicholas Kimolo - FOSSFA Consultant)
- Key note addresses by leading FOSS Activists (Pierre Ouedraogo - Francophonie, Fatimata Seye Sylla – DFI)
- Rishab Ghosh - Maastricht University, Aida Opoku Mensah – UNECA
- Keynote addresses (Mr. Abdulie Janneh Assistant Secretary General, Executive Secretary, ECA, Sir John Daniel - Commonwealth of Learning, Mr. Mark Shuttleworth - Canonical/Ubuntu, Balthas Seibold - InWEnt), Dr. Richard Stallman - FSF, Dr. Juma Oketch, Secretary, eGovernment Directorate, Kenya)
- Official opening by His Excellency The President of Kenya, Hon. Mwai Kibaki.
- Plenary on Delegates Expectations (Moderated by Prof. Henry Thairu-Jomo Kenyatta University)
- Break out sessions on:
 - FOSS & E-Government (Sponsored Session) (Dr. Juma Oketch – e-Govt Kenya, Mr. David Sawe – e-Govt Tanzania, Mr. Nhlanhla Mabaso - CSIR, South Africa)
 - FOSS & Health (Sponsored Session) (MD, Kijabe Mission Hospital, Kurt Brauchli, Frere Hospital, Nicholas Kimolo, Circuits & Packets Communications Ltd, Margret Nyambura, Afri Afya)
 - FOSS & Education (Sponsored Session) (Ms Shafika Isaacs - Schoolnet Africa, Joris Komen - Schoolnet Namibia, Hilton Theunissen - Shuttleworth Foundation, Prof. Derek Keats - UWC, AVOIR, John Walubengo – KCCT)
 - FOSS & Local Entrepreneurship (Sponsored Session) (Mugge Van Staden – Obsidian, James Lunghabo - Linux Solutions - Uganda, Dimo Calovski - UNCTAD, Thierry Amoussougbo – UNECA).

- Break out sessions on cross cutting themes:
 - FOSS Localisation (Dr. Twaakyondo - University of Dar-es-salaam, Dwayne Bailey - Translate.org, Hande BayraktarUbuntu)
 - Challenges on IPRs & Copyrights (Sponsored Session) (Heather Ford - Creative Commons, Denis Nicholson - Witwatersrand University)
 - Making Civil Voices Heard (Sponsored by Hivos) (Margreet Van Doodewaard - Hivos, Anriette EstherHuysen - APC, Caroline Nenguke - One World, Edna Karamagi - Brosdi Uganda)
 - Challenges on African FOSS Local Entrepreneurship (Sponsored by INWENT) (Christiane Weber - InWEnt, Ben Akoh - OSIWA, Makane Faye - UNECA, Roland Christian, President of CHALA).

Note that not all of the speakers above could make it, and the agenda needed to be adjusted to some extent on both of the first two days.

Appendix 4: Attendees: Idlelo Applicants

The following is a list of all Idlelo2 Applicants. Although a high proportion of these actually attended, much smaller numbers specifically requested to be involved in FLOSSWorld. A shorter list is presented at the end of this Appendix, though it does not include all the FLOSSWorld session attendees.

| Country | Lastname | Othernames | Organization |
|------------------------------|---------------|-----------------|-----------------------------|
| Belgium | | | |
| | Nkundabagenzi | Fabien | Congo Museum |
| Cambodia | | | |
| | Sola | Javier | Open Fourm of Cambodia |
| Canada | | | |
| | Butcher | Neil | Commonwealth of Learning |
| | Daniel | John | Commonwealth of Learning |
| | West | Paul G. | Commonwealth of Learning |
| Cote D'Ivoire | | | |
| | Christelle | N'CHO Zita | AAUL |
| | Nwakanma | Nnenna | ACISIS |
| | Roland | Christian | AAUL-CHALA- AI3L- ASSIST |
| Democratic Republic of Congo | | | |
| | eugénie | shabani mangaza | RTNC (Radio Television |
| | Mbula | Nadia | ACOULL (Association |
| Ethiopia | | | |
| | Aleme | Girma Mitiku | Menelik II Pre-College High |
| | Bekele | Dawit | University of Addis Ababa |
| | Faye | Makane | UNECA |
| | Hector | Paul | UNESCO |
| | Hussein | Ahmed | EFOSSNET |
| | Mohammed | Sultan | |
| | Opoku-Mensah | Aida | UNECA |
| | Tsegaye | Zemene Adgo | UNECA |

| | | | |
|---------------|------------|----------------------|----------------------------|
| | Zewdu | Zerihun | EFOSSNET |
| France | | | |
| | Ouedraogo | Pierre | INTIF |
| Germany | | | |
| | Seibold | Balthas | InWEnt - Capacity Building |
| Ghana | | | |
| | Annan | Samuel | FFCWI, ACSIS GHANA |
| | Kofie | J | |
| | Osiakwan | Eric | |
| | Sohne | William Guido | sohne.net |
| Guinea Bissau | | | |
| | Filinto | Dabana | REDECO/eRiders Guine |
| India | | | |
| | Krishnappa | Jalajakshi Chintrila | TERI |
| Kenya | | | |
| | Gakiria | Andrew | EGOV |
| | Ikua | Evans | Linux Professional |
| Association | | | |
| | Jin | Yusuf | University of Nairobi |
| | Kaburu | Vincent Victor | Scubamum |
| | Kagai | Bill | FOSSFA |
| | Kimolo | Nicholas | FOSSFA |
| | Kinyanjui | Ms. Lucy Wanjiku | Kenya ScollNET |
| (KesNET) | | | |
| | Kiprotich | Kipchumbah John | Citizens Coalition for |
| Constit | | | |
| | Limo | Andrew | EGOV |
| | Misoi | Irene Chepngetich | Catholic University of |
| Eastern | | | |
| | Mugo | Lucy | International Business |
| | Muhunyo | Gladys | Computer Aid International |
| | Musya | Michael | C&P |

| | | | |
|-----------|-----------|-----------------------|-----------------------------|
| | Musyimi | Catherine | Strathmore University |
| | Ndegwa | Jonah Munyua | FOSSFA |
| | Ngeera | Daniel Koome | M.K.I |
| | Njeru | Edith Roseline Nginya | KBC |
| | Njoroge | Brian | Circuits & Packets |
| | Nthigah | Silas Wachira | Kenya School of |
| | Oketch | Juma | EGOV |
| | Oketch | Auka | PACT KENYA |
| | Omondi | Lorna Ayako | Linux-chix |
| | Orwa | Ambrose Onyango | e-Government Directorate, |
| | Wachira | Josphat Kabinga | USAID |
| | Walubengo | J | Kenya College of Comm |
| | Walyaro | Constance Georgina | Oxfam International Youth |
| | Wamalwa | Maurice Wafula | kenya bureau of standards |
| | Wamalwa | MW | |
| | Wanyonyi | David Wafula | jkuat |
| Lesotho | | | |
| | Mosala | Matseliso | CISCO ACADEMY |
| Malawi | | | |
| | Banda | Clement Khalika | Malawi Government- |
| | Butao | Millicent Ndichitenji | University of Malawi |
| | Chikumba | Patrick Albert | University of Malawi - The |
| | Chinguwo | Dickson Daniel | University of Malawi, The |
| | Chirwa | Clara | University of Malawi |
| (Polytech | | | |
| | Chirwa | Faustace Namushani | National Women's Lobby |
| | Hiwa | Grace | Dept of Info Systems & Tech |
| | Kaipa | Florence Achiwa | CISCO ACADEMY |
| | Kayange | George, Mwika | TakingITGlobal Malawi |
| | Kuntiya | Kumbukani | Tasha Communications |
| | Lakudzala | Derek P | BUMAS International / it@ab |

| | | | |
|------------|--------------------|-------------------------|----------------------------|
| | Machika | Patrick Mapata Likhungu | Department of Information |
| | Maliwichi | Priscilla | University of Malawi - The |
| | Manda | Tiwonge Davis | Univaersity of Malawi- |
| | Monawe | Maganizo | University of Malawi - The |
| | Taimu | Thomas Banda | Malawi Social Action Fund |
| Mali | | | |
| | Sagara | Cheick Oumar | Centre Linux et Logiciels |
| | Tahouri | Romain Roland | |
| Mauritius | | | |
| | Nilmadhub | Manisha | CISCO ACADEMY |
| Mozambique | | | |
| | Chamba | Nelson Romao Elias | CIUEM |
| | Deus Manica Venica | Cecilia Cesaltina de | CISCO ACADEMY |
| | Maganlal | Kauxique | Ministry of Eductiona and |
| | Masite | Charles Noel | it@ab Member, Matrix |
| Group | | | |
| | Muchanga | Alberto | ITAB |
| | Muianga | Lucrecia Jaime | CISCO ACADEMY |
| | Taca | Ricardo Mario | Centre for Informatics of |
| Namibia | | | |
| | Komen | Joris | SchoolNet Namibia and |
| | Matanga | Cecilia Rudo | SADC Parliamentary |
| Forum | | | |
| | Mukaiwa | Clyde | ITAB |
| | Naholo | Sharon Nambata | CISCO ACADEMY |

| | | | |
|-------------|------------|-------------------|--------------------------|
| Netherlands | | | |
| | Ghosh | Rishab Aiyer | UNU-MERIT |
| | Kotterink | Bas | OpenSea V.O.F. |
| Nigeria | | | |
| | Adeyemo | Adeyinka | FOSSFA |
| | Akanni | Olukayode | KnowledgeHouseAfrica |
| | Akinwande | Deborah | Fantsuam Foundation |
| | Bello | Aderonke Abosedo | SchoolNet Nigeria |
| | Dada | John | Fantsuam |
| | Haidome | Lawrence | Coseo Ltd/Fantsuam |
| | Nwakanma | Mba | Equinox Technologies |
| | Oaiya | Omo | Nigerian Linux Users |
| Group | | | |
| | Okugbo | Edwin | Perfect Soft Systems |
| | Olajide | Oni Joshua | AVENIR NEPAD |
| | Olutuase | Oluwafemi Ayobami | KnowledgeHouseAfrica |
| | Solomon | Musa Odole | Nigerian |
| | Theophilus | Ekpon | Youth Initiators Nigeria |
| Pakistan | | | |
| | Bajwa | Fouad | |
| Rwanda | | | |
| | Mmasi | Rapahel | |
| Sawaziland | | | |
| | Mkhonta | Matty Jane | CISCO ACADEMY |
| Senegal | | | |
| | Dandjinou | Pierre | UNDP |
| | Seye Sylla | Fatimata | Bokk Jang 2B1-SN |
| | Toure | Seydou Baba | Seydou Baba |

South Africa

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|---------------|-----------------------|------------------------------|
| Adesemowo | Kayode | PGWC |
| Adrian | C | |
| Badimo | Anna | Linuxchix Africa |
| Bailey | Richard Dwayne | Translate.org.za |
| Blakey-Milner | Neil | KnowledgeTree |
| Brandjes | Denis | Openlab International |
| Butcher | Neil David | NBA |
| Chetty | Pria | Buys Inc. |
| Day | Bob | Non Zero Sum Development |
| Farelo | Maria Natalia | Department of Public |
| Fischer | Karl | AgileWorks |
| Ford | Heather | Creative Commons |
| Fortuin | Gary | Impi Linux (Pty)Ltd |
| Gumede | Nondzwakazi Zamokuhle | Dept of Science & Technology |
| Holcroft | Edward | NetDay Association |
| Isaacs | Shafika | Schoolnet |
| Jordaan | Nicolas Jean | Upfront Systems |
| Keats | Derek | University of Western |

Cape

| | | |
|-----------|------------------|---------------------------|
| Mabaso | Nhlanhla Michael | Meraka Institute, CSIR |
| Mangesi | Kofi Joshua | FreeCulture |
| Mcongwane | T | |
| Mkhonza | Anna Thembi | CISCO ACADEMY |
| Mogaswa | Thabo | Mohwiti Technologies |
| Mokhathi | Neo | Government Information |
| Njenga | James Kariuki | University of the Western |

Cape

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| Otter | Alastair | Tectonic |
| Ramasodi | Mushi Lorraine | CISCO ACADEMY |
| Theunissen | Hilton | |

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|-------|------------------|-------------------------|------------------------|
| | Tucker | Kim Cunningham | CSIR, Meraka Institute |
| | Venter | Andries Jan-Albert - AJ | OpenLab International |
| Spain | | | |
| | Casas Luengo | Luis | FUNDECYT |
| | Ramasamy | Pop | FUNDECYT |
| | Vaquez de Miguel | Luis Millan | Extremadura Regional |

| | | | |
|-------------|------------|-----------------------------|-------------------------|
| Sudan | | | |
| | Habbani | Nasra | |
| | Isamil | Rifaat Abdin | Sudanese Open Source |
| | Khair | Asim Abdelaziz Ali M. khair | 3000 |
| | M.Ahmed | Salma Ahmed | University of Khartoum |
| | Sabir | Ahmed | MolIC |
| Swaziland | | | |
| | Anbu | John Paul | |
| Switzerland | | | |
| | Chonia | Gideon Hayford | Univ Zurich |
| Tanzania | | | |
| | Kimaro | Clara Peter | CISCO ACADEMY |
| | Larsen | Ragnvald | Tanzania Wildlife |
| | Luhaga | Darius | Board of External Trade |
| | Machange | Joseph | Tanzania Govt |
| | Mgaza | Mboni | CISCO ACADEMY |
| | Nfuka | Edephonce | University of Dar es |
| Salaam | | | |
| | Nguzo | Balthazar | Agumba Computers |
| Limited | | | |
| | Niemi | Mauri | ELCT |
| | Ole Mokoro | Mike Peneti | Ilkisongo Pastoralists |
| Initiat | | | |
| | Rweyemamu | LeoPold Mutayawa | DataCom Africa |
| | Warioba | Wilfred | Commission for Human |
| rights | | | |
| Togo | | | |
| | Yabouri | Nahmsath Palabe | ATULL (Association |
| Tunisia | | | |
| | Ouerghi | Mohamed Said | dfsa |

| | | | |
|-----------|--------------|----------------|-----------------------|
| Uganda | Achom | Ruth | Kampala International |
| | Aineruhanga | Milton | Wougnet |
| | Ayoo | Philip | |
| | Bagiire | Vincent Waiswa | CIPESA |
| | Bitwayiki | Constantine | Uganda Govt |
| | Kagolobya | Prossy | Makerere University |
| | Kakinda | Daniel Lugudde | SchoolNet Africa |
| | Kakonge | Daphne | Women Of Uganda |
| Network | | | |
| | Karamagi | Edna | Brosdi |
| | Lunghabo | James | LinuxSolutions |
| | Namara | Evelyn | Linux Solutions |
| | Nsubuga | Martin Herbert | Nakaseke Community |
| | Odong | Prossie | Southern Business |
| Solutions | | | |
| | Otim | Samuel job | Makerere University |
| UK | | | |
| | Ariwa | Ezendu | London Metropolitan |
| | Bayraktar | Hande Morkoc | Ubuntu |
| | Davis | Claire | Canonical |
| | Grimshaw | David J. | Practical Action |
| | King | Helen Louise | The Shuttleworth |
| | Oladimeji | Dapo | African Century |
| | Roberts | Tony | Computer Aid |
| | Shuttleworth | Mark Richard | Canonical |
| | Silber | Jane | Canonical |
| Unknown | | | |
| | Clement | Sinyangwe | |
| USA | | | |

Bhorat

Zaheda

GOOGLE

Cooper

Danese

INTEL

Zambrano

Raul

UNDP

Zambia

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|-----------|-------------------|-----------------------|
| Chirambo | Emmy Kalonga | Community Education |
| Kaate | Oscar Chiyoba | CHAZ |
| Kapata | Estella Musonda | CISCO ACADEMY |
| Mwembeshi | Consuela Simukali | it@ab |
| Nenguke | Caroline Senzia | OneWorld Africa |
| Phirir | Rodgers , George | University of Zambia, |
| Sepiso | Shalala Oliver | Rescue Mission Zambia |
| Tembo | Patricia | CISCO ACADEMY |

Zimbabwe

| | | |
|----------|--------|-------------------|
| Dhlamini | Nodumo | AFRICA UNIVERSITY |
| Dziruni | Muroro | Connect Africa |

The table below lists individuals with a specific interest in FLOSSWorld. The list is not exhaustive as the sessions were attended by others on the spur of the moment in the somewhat flexible agenda at Idlelo2.

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Also: Dawid Bekele, University of Addis Ababa, shared background on localisation in Ethiopia, which must surely be one of the leading African countries in this respect.

Appendix 5: Slides Prepared for FLOSSWorld @ Idlelo2

See attached: [FlossworldAgendaOverviewForAfricaRegionalWorkshop.pdf](#)

These are slides covering the FLOSSworld Agenda at Idlelo2, and background to the FLOSSWorld project.

Appendix 6: Presentation on Flossworld Africa Regional Workshop

See Flossworld-AfricaRegionalWorkshop-finalforBrussels.pdf attached.

These slides were presented in Brussels.

Appendix 7: Additional Slides and Documents Collected at Idlelo 2

Register at FSIU, log in, go to the Idlelo workgroup and download:
FLOSSWorldAtIdlelo2.zip

<http://fsiu.uwc.ac.za/>

Appendix 8: ICT Policy in Africa

See attached: [govt-ict-policy-Africa.pdf](#)

Appendix 9: Go Open Source Task Team Conference 22-23 August 2005

See attached (GOSS_TTC_final1p14.pdf) report on the event in Johannesburg which includes the Declaration on the South African National Strategy on free and open source software and open content (“National Open Source Strategy”).

URL: http://wiki.go-opensource.org/wg/Main_Page

Appendix 10: Developer Projects in Africa

See attached: FlossDevelopmentProjectsAfrica.odt

Appendix 11: FLOSS in Education Strategy

Developing a coordinated strategy to support the use of FLOSS in African Education.

See attached FLOSSEducationStrategy.pdf

Appendix 12: Networking Activities

In addition to the activities above, a list of people interested in FLOSS research was obtained at the Africa Source 2 workshop, held at Kalangala, Uganda in February 2006.