

Feedback / Report on South Sudan 'open systems strategies' research trip November 2013

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In Mid-November Stephen Kovats and Clemens Lerche of the Berlin, Germany based r0g_agency for open culture and critical transformation gGmbH, a non-profit organisation working with and developing open source and open systems methodologies in post-conflict development visited South Sudan (primarily Juba and Kuajok, the capital of Warrap State) as a primary follow-up to the MEDIA & MAKERS Open Knowledge and Sustainable Media Forum, that took place in December 2012. The timing of this trip was established after an 'Open Systems' background documentation visit was made to Warrap State by our partners in South Sudan, the Community Empowerment for Progress Organisation (CEPO Juba) and the Kapital Movie Industry Corporation during the summer 2013. It was thus taken primarily to further our research, continuing the dialogue on Open Systems Strategies for Peace and Development begun with our South Sudanese partners, and engaging in the more precise discussions on education, development, security and empowerment issues that could lead to an actual production and implementation of the resource potentials available through Open Systems. The trip was undertaken independently but also in collaboration with, and on the invitation of, the Government of Warrap State, to whom we are grateful for the opportunity given to visit and speak to your citizens. As such we are immensely thankful to the support given to our research and collaboration by H.E. the Governor of Warrap State, Nyandeng Malek Dielic, and to the members of her staff in particular Mr. Angelo Maduth Agoth who organised our excursion to Warrap and to Mr. Gabriel Yak Majok who accompanied us in Kuajok and introduced us so generously to his hometown and state.

This report is divided into 5 segments, which can be seen as individual chapters, but which, at the same time also correspond to and interact with one another as a comprehensive review and proposal for an Open Development scenario in South Sudan:

- 1.) #OSWARRAP - Open Systems Strategies for Peace and Development in Warrap State**
- 2.) #OpenCRC - an 'Open Cultures Resource Centre; network for South Sudan**
- 3.) #OSBACK - South Sudan's Self-Reliant Open Server Backbone**
- 4.) Four Ideas for Short-Term, rapid-implementation workshop and seminar models**
- 5.) Higher Level / Professional Training in Open ICT4D in South Sudan**

1.) #OSWARRAP - Open Systems Strategies for Peace and Development in Warrap State

The intention of the brief four-day trip to Kuajok was to gauge the role that FOSS, open data, OERs, open technologies and open governance mechanisms can play in Warrap State, in line with the previous discussions held with Governor Nyandeng Malek Dielic in Berlin, Nov. 2012 and at the UNESCO WSIS +10 Review conference Paris, February 2013 with numerous partners including the German Federal Foreign Ministry. Meetings were held in Warrap State with a broad range of government policy makers, students and civil society groups active in the state, and as guests of the Warrap Council of Ministers, we were taken to numerous sites in and around Kuajok to also get a sense of the capital city's scope in general. Governor Nyandeng has pledged her political support to developing and applying 'open systems solutions' as a means to help lead her people, in particular the vast majority of pastoralists and ex-combatants, 'into the 21st century' of peace, stability and

prosperity. Key elements of this research trip were to:

- hear directly from the line ministries in detail the challenges they face
- hold exploratory / introductory discussions as to how open methodologies, that may range from information accessibility issues to the creation of community-based knowledge bases (crowdsourcing, witness/experience mapping, media literacy etc), from capacity building to developing community-based open energy solutions, can help mitigate individual challenges and benefit the community at large
- assess technical resources, infrastructures and potentials for rapid implementation of open solutions, including public radio and networking of available communications infrastructures
- assess potential skills and interest in ICTs, especially of students, technical support staff, as well as youth and community leaders
- discuss and assess the feasibility of considering FOSS, open license and e-pub publishing models, OERs, and other open resources for schools, ministries, and points of public access to information and knowledge (incl. their economic and sustainability aspects)
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Within the Warrap leadership we held in-depth talks in particular with

- Hon. Gen. **Acuil Tito Madut**, Minister of Local Government
- Hon. **Joseph Lual**, Minister of Animal Resources
- Hon. **Victor Atem Atem**, Minister of Education
- Hon. **Muardet Majol**, Acting Dir. Gen. of the Ministry of Information and Telecommunications
- Hon. **Victoria Bimo Tito**, Minister of Social Development
- Hon. **Akec Tong Aleu**, Deputy Governor

Key issues raised across all ministries included the need to

- 'upgrade' the minimal or informal training many people already may have in the fields they are actively working in
- create mechanisms through which teachers, leaders and policy makers can access information and contribute knowledge as 'their neighbours' do (most ministries, including Info/Telecommunications have no internet access)

Take advantage of existing mobile technology use - even if minimal, to create more effective means of communication to address issues such as:

- access to, as well as better understanding of medicine and veterinary practices in cattle ranching
- training payam leaders to explore the benefits of cattle raising, milk production and further forms of economic development that a framework of peaceful stability can allow
- create channels of community exchange based also on common cultural values, practices as means to help reduce violence and inter-tribal conflict
- facilitating nomadism as a viable means of life and economic potential
- increasing literacy and numeracy, including via story-telling and secure exchange or discourse mechanisms (moving from passive to more active forms of education and collaborative dialogue, i.e. forums and special interest 'cluster' meetings that can share stories, experiences across and between communities)

Besides the discussions within ministries, we also held a 3 hour public seminar with open Q&A on open systems that was attended by ca. 30 local students and ca. 10 key local ministry officials, as well as representatives from the Warrap Women's and Youth Organisations. The intention of the session was to allow us an opportunity to 'introduce ourselves' in as public a manner as possible, and to meet a broader range of people than would have been possible with the ministerial meetings alone. We introduced and discussed the concepts and reasonings behind open source software, and how this relates to a number of other areas and practices, that span from DIY

technologies (i.e. open hardware farming machines to power supplies) to the notion of 'up-cycling' (increasing the value of discarded materials by re-integrating them into practical use in other, more valuable or innovation ways) to community wireless networks and their relationships to radio and telecommunications structures.

The session was held in a small juggle of languages between English, Arabic and Dinka - which was an extremely interesting and important experience for us, as it gave us an opportunity to judge first-hand the general level of english comprehension within this specific community. What was also interesting was the mix and comprehension of the concepts and ideas we were discussing. Kuajok has a large population of returnees from (Northern) Sudan whose english comprehension is not so high - but whose level of training, education or vocational skills may in some cases be stronger as people more 'native' to the region. This presents a very interesting opportunity for integrating and managing skills and experience, where language is perhaps the key barrier, not training or literacy itself. We hope that local government and society at large will take advantage of the skills of these (North) Sudan returnees in building the new state together!

As part of our brief seminar we also introduced and demonstrated three pieces of 'open technology' as live examples of the things we were talking about. We did this at a number of our meetings, and was surprisingly well received. Considering as least two of these 'technologies' are neither new nor particularly inaccessible, we were positively surprised both by the engaged interest in them and at the fact that this is not being promoted more widely by the traditional 'development community':

r0g_solar.mini: a simple home-made 5V solar power charger suitable for any mobile phone. Made by a small group of students in Berlin who are also part of the international 'open source ecology' network the r0g_solar.mini is a fast and powerful pocketbook size charger that also simultaneously charges 4 x AA ni-cad batteries. Although there are numerous mobile solar power chargers on the market, the r0g_solar.mini was developed as a test and demo model of a charger that, with a small amount of training, can be built by anybody and uses common components that are readily available. The design the r0g_solar.mini is also open source, so it's copying, use and distribution - including development and marketing by anybody is both allowed and encouraged.

Ubuntu OS: is the world's leading desktop operating system alternative to Microsoft Windows. A Free and Open Source (FOSS) operating system developed in South Africa, Ubuntu does anything MS Windows can ... and more - in part because it is open source. As such it is also always updatable at no cost to its users, meaning that users will never be either in infringement of its (free and open) user license and can always use the most up-to-date, most secure and most stable platform available, thus reducing the risk of viruses, data-loss or damage to other parts of your system. Computers that are bought free of MS Windows, with Ubuntu installed, automatically cost \$50 - \$100 less per unit as there are no licensing fees included in the purchase price. We demonstrated the platform, and immediately after the workshop we also installed Ubuntu upon request on a machine in the IT office of the Warrap Ministry of Finance. Ubuntu provides the most logical operating system solution to public administrations, schools and management structures - free, secure and without the use of cracked or outdated software, and with cost savings when implementing computers and IT systems that frees up financial resources that can be used more effectively elsewhere, for example building schools.

Raspberry Pi: is an open source credit-card-sized single-board computer developed in the UK with the "intention of promoting the teaching of basic computer science in schools", but which can also be used to build and develop completely self-contained computers and learn various forms of programming. While we didn't expect everybody (or anybody for that matter) of knowing what this thing is, it provided a very useful vehicle to illustrate the power of open innovation and design. While the Raspberry Pi emerged out of a high-level university research program in the UK, it has now sold over 1.5 million units, at a cost of ca. \$35 / unit. What is essentially

a fairly powerful computer stripped down to its most 'bare essentials' the Raspberry Pi has the potential to, for example - if a young South Sudanese with no knowledge of computers, but with an entrepreneurial spirit, were to pick one up - create South Sudan's first homegrown computer industry. More importantly, it illustrates that the most cutting edge and innovative technologies are ALSO within the reach of South Sudan's emerging young generation. They're keen to learn, and they understand what these things are (even if they have never seen or heard of them before) and if given the chance to have simple and straightforward access to information and open resources they can join and compete with their peers across the continent - regardless of where in South Sudan they live.

2.) an 'Open Cultures Resource Centre; network for South Sudan (#OpenCRC)

As part of the conclusions or observations that followed our discussions in Warrap State, as well as in Juba, was the recurring notion that there is simply too little access to valuable, available, and in most cases, free and public domain information regardless of the availability of internet services. We concluded that there could be great potential for the development of a mechanism that can effectively and as a 'community-owned' resource, impart information, services and training in open systems solutions that are aimed specifically at enabling and securing peace, stability and development. The idea of an '**Open Cultures Resource**' *centre, or hub or support base* located within communities as a form of open resource 'extension services' facility to cater to all sectors could be such a place, and may indeed be an immensely strategic investment to aid training and development in a wide variety of fields across the country. In key urban centers such as Juba such an Open Cultures Resource facility could be the an embryonic focal point for what could become an independent open innovation hub, or young entrepreneurs oriented 'maker lab'. In more rural areas it can provide information, resources and interaction with other groups, communities, services, government or NGO agencies ... doing so with mobile telecommunications as well as through 'offline' means. The Open Cultures Resource Centre (code-named **#OpenCRC**) would be a community oriented service and information point, based on general framework or 'kit' which can then be easily designed to cater to the appropriate and specific contexts where it would be implemented. It would 'serve' and provide a channel of access to open solutions for a range of needs from education (OERs and beyond), to medical information and material (i.e. resource databanks, info-video services on medical and health care practice), to community and 'home based' energy creation, to providing straightforward entry level training and skills in Open ICTs / internet resources as well as providing basic access to information and data on any number of issues that could of be use and of interest to local communities. The #OpenCRC could act as a key linking mechanism to major national hubs and points of reference, such as the National Bureau of Statistics (i.e. to help facilitate or even expand its High Frequency Household Survey HFSSS) or the development of the National Archives and Museum of South Sudan Cultures. It can act as a connector between communities, helping to create various forms of cultural, economic or political dialogue and serve not only as an access and dissemination point, but create a location for active input and interaction between such groups, communities, governments and civil society organisations.

The #OpenCRC could be developed as a space and place of interface and interaction, where traditional knowledge, the histories of storytelling and claims to cultural heritage and ownership (i.e. as regarded within the treaties on 'intangible cultural heritage') can be linked to new media, ICTs and empowerment technologies for the development of strong and valid hybrid cultures. The space would advise - also based on relevant traditional practices and cultures, how to innovate, i.e. through up-cycling of known and available resources, creating added value - and using that knowledge to develop new business and cultural models.

Even in the short time we have now spent in South Sudan, in conjunction with the high level of debate and discussion that came out of the MEDIA & MAKERS Forum in December 2012, we have seen that the skills, the

interests and the structures exist in such a way as to initiate the development of such a resource network in the country, to make it function sustainably, and to help communities develop their own destinies.

As such the #OpenCRC sets goals to:

- support, help develop and supplement current curricula and schools, especially using OERs
- develop content and interest in learning by collaborating with and within communities (enabling special interest groups, such as women, youth, students with specific interests)
- include mobility as a key element in order to take teaching and knowledge interaction to remote or nomadic communities, using both online and offline resources to do so
- help develop education management, coordination and resource sharing systems between counties, states, and regions
- act as local outreach - and truly community interactive - nodes for getting the work and resources of new centralised national institutions such as the national archives or national museum out into the population beyond Juba (and feeding input from communities into the archives and museum)
- create meeting, discussion and distribution spaces for cultural and educational events, gatherings etc. that use the net to share information and knowledge (i.e. screenings, concerts, shows etc. of South Sudanese (and other) sound artists, dancers, filmmakers, traditional craftspeople, etc.)
- breaking the lingering barriers to digital culture and technology by introducing hands-on interaction with science, technology and computing for all members of society, including young children, women and marginalised groups (i.e. applying DIY / DIWO methodologies, up-cycling and other forms of localised tech innovation)
- create trust and self-determination building: how to translate independence into innovation
- help address civil society development issues (i.e. 'citizens against discrimination', de-tribalising / demilitarizing society, ex-combatant integration etc.)

3.) #OSBACK - South Sudan's Self-Reliant Open Server Backbone

secure your future – own the keys to your data, information and knowledge ...

The #OpenCRC would benefit of the proposal to develop a Self-Reliant Open Server Backbone for South Sudan (#OSBACK). This is an integral part of a comprehensive South Sudan Open Systems Strategy based on Open Source technologies and methodologies, using renewable and self-sustaining energy sources.

To be developed and administered under the auspices of the South Sudan National Bureau of Statistics, in collaboration with the international Open Source Ecology network, in a potential consortium that may include UNESCO, the Faculty of Engineering and ICT at the University of Juba, the South Sudan Ministry of Information and Broadcasting, the South Sudan Ministry of Telecommunications, and other organisations involved in Open ICT development.

#OSBACK will form a fundamental point of infrastructure to:

- secure, manage and disseminate South Sudan's sovereign data and information
- allow reliable 24/7 access to information independent of existing energy delivery systems
- enable increased citizen participation in the development of the country's social and economic narratives
- locally seed and network further points of public internet access through all 10 federal states
- assuring transparency of information allowing universal access to public national archives and open educational resources (OER)
- train and build capacity in open ICT structures and management

“Owning” your data, and having control over your technology to enable access to information for knowledge creation is a crucial – and largely unrecognised – cornerstone in securing South Sudan’s future and independence. Open Source and related open technologies solutions which use public domain licenses, sharable and freely distributable software and hardware are economical, and both rapidly adaptable and implementable – while leaving the full autonomy and ownership of the system and its contents in the hands of its users (in this case, the Republic of South Sudan through the stewardship of the NBS). Self-reliant open source hardware server solutions exist today that can be adapted for the special needs of extreme environment, self-contained, self-powered contexts, such as those that create the primary challenges to implementing a functional server backbone in South Sudan.

In conjunction with the infrastructure created by the High Frequency South Sudan Survey (HFSSS), a program being implemented by the NBS and managed by the World Bank to deliver immediate, high-frequency, and high-quality data on the social, economic and security conditions in households across the country, #OSBACK would act as the nation’s information ‘facilitator’. Currently operating in four of the country’s state capitals – Juba, Malakal, Rumbek and Wau, the HFSSS would provide the preliminary logistical nodes from which the #OSBACK network can be developed. Built of a series of independent units at each NBS / HFSSS location, the proposed #OSBACK South Sudan Open Server Backbone would optimally be expanded to have at least one server node in each state, creating a mesh-type structure with enough redundancies to function as a whole, yet grid-independent system round-the-clock.

One similar form of server unit was built and developed to run on its own in the Antarctic for 6 months in 2006 – but there are numerous possibilities. Such servers are not necessary expensive or complex, and many open source initiatives and organisations that develop such systems favour Open Source and ‘appropriate’ technologies solutions over exclusively ‘off-the-shelf’ proprietary technologies – especially those that are not necessarily suitable for the extreme conditions and peculiarities of South Sudan’s post-conflict society and infrastructure. What are the main challenges facing the creation of an ‘Open Server’ in South Sudan?

- hot, wet, dusty climate ... need for strict controls to ensure hardware protection from the elements
- energy security - reliance on diesel is unstable, building self-reliant power must be assessed individually for each location (although this is also advantageous in some areas)
- currently web and server systems are managed in Norway ... expertise and content will have to be 'brought home', then a sustainable and training based development and maintenance scheme will have to be created - and funded

However, such a system should be seen as a capacity building tool in itself, and thus linked to a comprehensive national ‘open ICT’ strategy that will have an impact on education, vocational training and economic development. The #OSBACK should therefore, perhaps in collaboration with the ICT department of the University of Juba, serve the purpose of training and knowledge development in Open ICT systems and solutions. The concept was initiated through discussions with David Chan Thiang, Director of Economic Statistics of the NBS during the MEDIA & MAKERS Sustainable Media and Open Knowledge Forum, Juba, December 2012, and followed up through consultations with leading Open Hardware and infrastructure developers. The proposal is now being assessed by the NBS, in a process begun in Juba in November 2013 following concept development meeting with David Chan Thiang and Labanya Margaret Mathya Ugila, Director General for Administration and Finance at the NBS.

4.) Four Ideas for Short-Term, rapid-implementation workshop and seminar models

With reference to our recent research trip, working with local students, officials, NGOs and other members of the

community, in addition to the more broad, and introductory or in-depth training in 'open systems solutions', four small workshops 'types' or 'units' are being proposed in collaboration with the Office of the Embassy of Canada. These can be scaled and implemented in a number of different scenarios, and directly reflect interests and education / training related questions and challenges that were brought up during our recent discussions with local stakeholders, and governments.

Each is based on specific element of Open Systems principles or tools, and aimed at knowledge and creative resource development that can reach a broad spectrum of people with varied levels of skills. We list this roughly in order of preference and quickest implementability, although all are highly worthwhile, doable and relevant:

a.) Warrap Wikipedia Sprint (Open Source / Open Knowledge training)

A 'Wikipedia sprint', 'wikisprint' about Kuajok or Warrap State, with the Kuajok youth organisation would aim to draft the first comprehensive and community created (i.e. local experts and residents) Wikipedia entry in Warrap State (and perhaps South Sudan). With a sprint, besides introducing people to Wikipedia (and a number of related 'Open Knowledge' resources) we address other key skills including researching, writing, editing - and doing this together as team work. Some very basic IT skills, information about the vast realm of online knowledge resources, as well as how to have fun with your history, your future and your 'image' in the world are also 'products' that can emerge from such a workshop. The results can be presented publicly as an evening event along with film or video(s) about the area featuring local music and musicians (that, at best, are included in the wikipedia entry itself). Such a workshop, which would help put Warrap, and South Sudan 'on the map' could also act as a catalyst for an Open Cultures Resource Centre in Kuajok, and would help illustrate the fundamental value of developing better online infrastructures and resources, especially vis-a-vis the education system.

Some more info about the background or standard methodology behind sprints can be found here:
[http://en.wikipedia.org/wiki/Sprint_\(software_development\)](http://en.wikipedia.org/wiki/Sprint_(software_development))

In 2011 the Kitchen Budapest arts, culture and tech organisation hosted a Wikisprint to celebrate the 100th anniversary of Marshall McLuhan's birth, and created an improved article about the Canadian media pioneer's life and work in the Hungarian language edition of Wikipedia. <http://mcluhan100.kibu.hu/wikisprint/?lang=en>

b.) Konyo Konyo Market Data Expedition (Open Resource Mapping / Open Urbanism)

Data Expeditions, as practiced for example by the 'School of Open Data', are "quests to map uncharted territory and discover hidden stories" in the world around us. In a hands-on manner they can help answer questions, conduct on-site research, uncover resources or simply learn about specific places and contexts. These are done as group work, using collaborative research and mapping methodologies as a 'learn by doing' process employing real time and live variables ... such as those found in the complexity of Konyo Konyo Market.

Using the simple photo/voice/GPS tagging FOSS platform **ojoVoz** which employs a methodology to engage communities in the creation of collaborative, audiovisual knowledge bases using (even old) Android mobile devices, we would do a **Konyo Konyo** market resource expedition to mark, plot and describe products available for selected or specific sectors, i.e. electronics, IT ... or the best fruits and vegetables. The ojoVoz platform helps teach people about how to record, document and explain elements about their world using Open ICTs in an easy to use, and easily distributable manner. It requires no formal literacy skills, and is 'omni-lingual' meaning that there is (virtually) no reading or writing skills necessary to run the system, and can be conducted in any language as the data input is a photo made by the user, followed by a short spoken text or localised background sound/noise. The individual 'data packets' are automatically GPS location tagged and uploaded as soon as the

mobile devices are brought back to base where they can be connected online. Once uploaded the recordings are sorted in a simple blog-type structure, are archived according to date, tag, team or place. In addition to being able to share the recorded bits of input between all users of the project and the rest of the world, a map based on the GPS coordinates that also localised the recordings is automatically created.

The ojoVoz platform will also be used in our 'Open Systems Strategy' work in Warrap State on community dialogue, interaction and ICT literacy development.

more about ojoVoz:

<http://sautiyawakulima.net/ojovoz/en/index.htm>

more about data expeditions:

<http://schoolofdata.org/data-expeditions/>

c.) Juba Innovation Lab Community Media Workshop (Open Media / Open Innovation)

Across Africa innovation labs and hubs, such as the iHub (Nairobi), iceaddis (Addis Ababa) or ActiveSpaces (Cameroon) among many others are being developed as technological, cultural and educational focal points, aimed at strengthening and increasing the access to knowledge and information for local communities, as well as providing locations for free expression and collaborative, peer-to-peer learning. Such hubs, acting as incubators and networked within a global community of like organisations promote the culture of innovation allowing for the development of new ideas, products and services. Often they establish and promote 'start-up culture' where none has existed before, and become catalysts for local economies.

Juba's independent 'Kapital Movie' collective, a group of young designers, film makers, IT professionals and artists has proposed the establishment of kHUB, a non-profit, community-based technology, innovation and learning hub with a vision to defeat the many impossibilities challenging South Sudan's future. Tapping the hopes, aspirations and dedication to create a new future beyond conflict the young kHUB community, whose members hail from all of South Sudan's regions and ethnic groups, aims to transform these challenges into creative business and vital training opportunities relevant to South Sudanese youth as well as forming new partnerships and networks, both regional and international.

The workshop would bring representatives from neighbouring regional hubs together for a first ever, and hands-on development workshop aimed at establishing a 'modus operandi' and exploration of the means with which ihubs operate, how to actively go about setting up such an organisation and how to create a network of collaborative enterprise between the broader international hub and lab community.

Lagu Stephen Samuel and local medical student and film maker, who established the Kapital Movie collective participated at a gathering of African innovation hubs in Berlin, May 2013, and the core idea would be to bring this knowledge and community now to Juba, potentially in collaboration with initiatives such as AfriLabs and the UNICEF Youth and Technology programme.

<http://afrilabs.com/>

<http://www.ihub.co.ke/blog/2013/05/global-gathering-of-innovation-hubs-at-republica/>

d.) HackIDemia / Kids and Technology Open Hardware workshop

HackKidemia is a globally active and mobile invention lab aimed at students and younger kids that enables future changemakers to learn hands-on and solve specific challenges by developing and testing creative solutions by enabling creative making for social impact. Hackidemia has organized workshops worldwide with kids in schools, hospitals, in favelas, museums, in parks and even in a stuck train in cities such as Bucharest, Sofia, Austin, Sao Paulo, Lagos, Dallas, Las Vegas, San Jose, Berlin and Bangalore.

Children have an amazing capacity to invent things and to see solutions in places where adults may even have forgotten to look - and do this no limits of age, education or social context. HackKidemia bring hands-on technology, creation and working together to young people ... who enter a whole new world of creativity, fun and educational exploration that may stay with them the rest of their lives. Such workshops can also help develop curricula for science education and show ways in which, using very limited resources very big ideas can be created!
<http://www.hackidemia.com>

5.) Higher Level / Professional Training in Open ICT4D in South Sudan

i.e. Empowerment Technologies

creating a curriculum of Empowerment Technologies either in conjunction with Juba University and/or other partners that may include CEPO (Community Empowerment for Progress Organisation) among others

- basic training in media and communications cultures
- internet platforms as tools of literacy and learning
- mapping, tinkering, up-cycling
- technology and empowerment for numeracy
- extending physical / oral expression: self-determination, independence, self-reliance

This seminar or workshop series intended to introduce relevant areas of open source and open systems as basic and essential capacity building tools that cross many fields and disciplines, and that are intrinsically linked to issues of social environment, cultural interaction, security and community communication, and a number of aspects regarding methodologies for innovation and sustainable development.

Such seminars can range across topics such as:

- basic and practical tenets of open source as powerful and accessible tools for everyday use and applications (incl. general media literacy and technical numeracy)
- applying open source tools for innovation, entrepreneurship and sustainable development
- accessing, developing and implementing OER (Open Educational Resources) for libraries, curriculum, e-learning and knowledge development systems
- social media and open platforms for transparency and accountability (incl. open gov't and processes of democratisation)
- social media and open systems solutions for social change
- open systems for empowerment of women, children and marginalised members of society (incl. issues of violence, security, conflict mitigation)
- development of community, shared experience and open knowledge base creation tools and methodologies
- Open ICT in agriculture, design and urban development
- open data, open source, mobile technologies and citizen journalism
- community radio, media and open networks (terrestrial and online)
- open hardware, critical making and collaborative technologies
- open source applications for energy and power generation (solar, wind, hydro)
- basic tenets of community wireless networks and off-grid communications structures
- up-cycling, re-appropriation and re-purposing of technology (incl. DIY methodologies, playful / creative hacktivism)

There are many more areas, and into further sectors for specific groups, where open systems solutions and resources in the form of educational and professional capacity training can be effectively developed, used and implemented. Especially where written literacy is low the use of (open) technologies can be an effective means to gain functional literacy skills with people can better share, develop and implement new ideas. There is great potential to effectively develop and implement strategies for 'open culture' in South Sudan, as a means of both securing its future and giving it an equally new and strong voice among the community of nations.

i.e. The Architecture of Peace - Juba (exhibition, seminar, workshop, international exchange)

#AoPJUBA (Architecture of Peace - Juba) is an urban research, development and education project being proposed in collaboration with the University of Juba (Faculty of Architecture and Engineering), icebauhaus (Weimar) and the ARCHIS Foundation (Amsterdam) to address the issues of post-conflict urban development. #AoPJUBA addresses the rapid disappearance of public space in post-conflict areas and attempts to identify spatial problems within urban development as well as jointly compose innovative resolutions that operate with regards to the conflict's specific dynamics. The aim of #AoPJUBA is sustainable and cultural policies that contribute to peace building and the establishment of democratic frameworks. #AoPJUBA supports the increase in the quality of life of civilians and in the security of urban areas by serving as a facilitator for political and public awareness and as a trigger of community action.

#AoPJUBA brings together active participants from the government, aid agencies, architectural organizations, community services and development cooperations to share knowledge and experiences and to promote the recovery of the local community through sustainable reconstruction of the city. Simultaneously #AoPJUBA both introduces new technologies and also works with local partners in culturally rooted methods to creatively and effectively reach a large national and international audience. It aims at creating a lasting contribution to concrete problems in urban development and in the establishment of peace building initiatives.

Key initial #AoPJUBA gatherings may be in the form of two workshops; one taking place during the africa:reload convention in July 2014 in Weimar – initiated by icebauhaus Weimar – the other taking place at the University of Juba in September 2014. These will lay the groundwork for a broader conference in Juba that invites political authorities, international agencies and civil society groups into the discussion.

Both workshops address the notions of Open Source Urbanism and the use of, and access to, Open Educational Resources (OER) in both planning and development. These areas of activity form parts of the Millennium Development Goals (MDGs) set by the United Nations and advanced through the work of the UNESCO. The project seeks to apply the MDGs to the reality of sustainable urban development and existence by supporting the reconstruction of urban zones in post-conflict zones on the basis of community interactive and Open Source methodologies and the ideas inherent to participatory Open Development solutions.

Base material for the project comes from the existing AoP (Architecture of Peace) exhibition by the ARCHIS Foundation, which will be expanded further in a Juba segment and end in the conference in Juba after the second workshop. AoP is an international project that includes case studies, interventions, university research, debates, exhibitions and publications that support the reconstruction in post-conflict areas, the improvement of intercultural dialogue and the preservation of peace. Workshops and conferences held by #AoPJUBA will be catalysts for action in political and public awareness, facilitate precise strategies for civil and administrative structures and encourage individual initiatives. Concept and toolkits can also be transferred to other post-conflict areas.

With our partners and networks within and beyond South Sudan, we would be delighted to produce, further develop and effectively implement any or all of the recommendations and ideas in this report!



Stephen Kovats
Berlin, Dec 04, 2013
(attachment: detailed schedule and meetings list)

For further information, documentation or references to the points in this report, please see:

our Warrap State Radio Interview by Santino Madut Ayuel, at the Ministry of Information and Telecommunications, Kuajok:

https://soundcloud.com/r0g_agency/oswarrap-interview-by-santino

a short video produced by Juba medical students and film makers Lagu Stephen and Dratu Richard:
kLAB - an Open Innovation Lab for Juba?

<http://www.youtube.com/watch?v=dlhcBBWCCd4>

our Flickr photo documentation:

http://www.flickr.com/photos/r0g_agency/

further video clips, from MEDIA & MAKERS JUBA, Dec 2012:

<http://www.youtube.com/channel/UCItWt9b8GG07LKdmnQGhqvg>

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