GLOBAL INFORMATION SOCIETY WATCH 2018

Community Networks

Global Information Society Watch

2018

Global Information Society Watch 2018
Community Networks

This edition of GISWatch came into being alongside a brand new baby boy. Welcome to the world, Ronan Diga!

UGANDA

CONNECTING ISOLATED COMMUNITIES IN UGANDA

BOSCO Uganda
Tonny Okwonga
www.boscouganda.com

Introduction

Battery Operated Systems for Community Outreach (BOSCO) Uganda has been standing by isolated communities for the past 10 years, providing information and communications technology (ICT) connectivity and training in northern Uganda. One prominent observer once called this region the worst place in the world to be a child: remote, war-affected, culturally scoured, and deeply isolated over more than two decades of brutal insurgency. Being rooted in a tradition of solidarity with suffering people throughout these conflict years, there is a need to prevent technology from acting primarily as a conduit for unbridled social forces without concern for their impact on communities.

Technology in service of these forces carries the risk of simply amplifying the loudest social message, communicating to emerging global citizens that they are really just backward and poor Western consumers. We watch this threat unfold with the rise of institutions such as sports betting among the youth in northern Uganda, and the loss of cultural practices and norms.

We show that this does not have to be the case.

Background

BOSCO Uganda is a non-profit organisation under the trusteeship of the Archdiocese of Gulu. Back in 2006, many thought that the new technology that began to rock northern Uganda would deprive people of their traditional culture. Yet providing internet and voice over internet protocol (VoIP) telephony and solar-powered PCs to rural areas helped to both connect people and preserve culture.

Since 2006, BOSCO has supported many isolated, rural communities in gaining connectivity through ICTs and helped them become part of a broader networked community. Now, as one of Uganda's leading NGOs in the area of information and communications technology and development (ICT&D), it helps to carefully integrate ICTs into local community needs, leapfrogging missing technical infrastructure and working in areas indispensable to sustainable development, such as mentoring, e-learning for adolescent refugees, renewable energy, entrepreneurship, and research development. All these efforts attracted international attention and BOSCO received the inaugural Breaking Borders Award[1] in the technology category from Google and Global Voices.

BOSCO's historical competency lies in rural ICT connectivity and training, but our unique focus is using that technology for community building. BOSCO has provided a high-speed intranet to connect users with one another across regional communities, and then connected the network to a modest, shared internet connection. The network is powered by solar energy. The goal is to enable once-isolated peoples to leapfrog over not just missing technical infrastructure but, importantly, over the social infrastructure that is missing in war-affected rural villages and, thereby, build new foundations for emerging together into sustainable, globally participatory futures.

For instance, the small community networks, mushrooming amongst the brown ant hills in places like Pagak, Jengari, Unyama, and the Pabbo Parish and Catechist Training Centre, not only enabled the internet to bring news of events from elsewhere in Uganda and the world, but also fostered local pride. These communities have different abilities, yet travelling along different paths they can arrive at the goal of rural communities built around shared cultural values, such as shared land ownership and peace-building traditions. In short: connecting people, preserving culture.

The craft of building a cyber-catalysed community is a new manifestation of a lost art. It is pressed into contemporary expression both by the desire to overcome ever-widening disparities among peoples, resulting from the near-runaway pace of global change, coupled with unprecedented opportunities for collaboration created at the technology edge of that change. BOSCO's mission is precisely to leverage this frontier using ICTs for building international

---

1   BOSCO Uganda. (2010, 7 May). Archbishop Acceptance Speech – "Breaking Borders Award". boscouganda.com/2010/05/07/archbishop-acceptance-speech-breaking-borders-award

partnerships – both organisation-to-organisation and person-to-person – in support of the emergence of once-isolated communities into new forms of participatory global citizenship. But the fruit of these international collaborations must be bridging the traditional with the sustainable, along pathways that transform, rather than replace the old with the new.

BOSCO's integrated community approach: The case of CE3

BOSCO's immediate future is focused on developing connected, entrepreneurial and sustainable ecosystems with access to electricity in the communities we serve, to turn isolation and dependence into self-advocacy. Traditionally, many development projects follow a one-pronged approach, focusing time and resources on effecting change through singular pin-point interventions. For instance, take the case of education. Like many approaches, BOSCO includes computer education suited to the needs of the communities and the realities of global interconnectivity: a Web 2.0 collaborative approach with e-agriculture, educational outreach, e-government and others as well as computer-based entrepreneurial training. However, BOSCO's CE3 project integrates ICTs for the purpose of education with a new "eco-electrification" model. Inspired by Accenture's corporate citizenship values[2] on "Skills to Succeed" and "Environment", CE3 uses the collective impact of entrepreneurial education, energy, and connectivity to drive sustainable economic growth in rural communities.

The CE3 project adopts a community-focused and impact-driven approach to economic development, and was created after close discussions with rural unconnected communities and NGO partners operating in northern Uganda. Like many rural communities throughout rural Africa, our rural unconnected communities face limited economic opportunities daily. It is an environment where the youth mature in isolation without access to the internet, students complete their education and graduate with few local employment opportunities, culture discourages risk and entrepreneurship, and basic infrastructure such as electricity is unavailable – further limiting the development of education, ICT access and productive entrepreneurial ventures.

Over 50% of children in the developing world go to primary school without access to electricity – affecting over 291 million children worldwide. The lack of electricity at these schools limits students and teachers from being offered basic teaching and learning tools such as ICTs or e-learning solutions, as well as infrastructure such as lighting to study at night or electric water pumps for drinking and cooking. Often these schools are in close proximity to communities and business owners who also have a strong demand and willingness to pay for reliable energy, enhance their business and entrepreneurial skillsets to improve their current businesses or start new ones, and participate in the education and mentorship of students.

The CE3 project aims to equip communities with solar energy, Wi-Fi connectivity, entrepreneurial training and mentoring to create businesses and jobs that are more efficient, more diverse, and more lucrative – an economic ecosystem "in a box". To do so, the CE3 model comprises three interrelated pillars that build on one another.

The first pillar develops entrepreneurial skills using a blended learning approach: students work through a computer-based, self-paced, six-module course with assistance and guidance from a course facilitator. Designed for CE3, this interactive course walks students through the process of starting a business, and guides them through the development of a business plan, an output of course completion. After completing the course, entrepreneurs enter the mentorship programme, where they receive face-to-face, one-to-one mentoring from a local business professional and virtual one-to-one mentoring from an Accenture volunteer to help bring their business plan to fruition. Local mentors are comprised of community businessmen and women who have built successful businesses and offered to coach young programme graduates.

The skills acquired by programme participants under the first pillar enable them to leverage the energy and ICT components of the model to build businesses and grow the local economy.

The second pillar is energy. In each site location, the solar energy system is located in partnership with an institution that co-invests in the system setup, has built a secure facility to house the system and has agreed to pay for a certain percentage of the power.

Once power is available, each site is equipped with internet connectivity, enabling the site to participate in web-based activities such as entrepreneurship training. ICTs enable the programme to reach a significantly larger number of current and aspiring entrepreneurs and provide access to information that would not be available through traditional skills-building programmes.

2   Accenture is a partner on the project. See: https://www.accenture. com/us-en/company-corporate-citizenship

Building a community means more than just building ICT centres

Although our focus is still on implementing ICT and development centres, our activities go far beyond the provision of computer training. BOSCO engages in developing and providing long-term solutions for the social-economic development of the vulnerable population with whom we work.

Consider the example of expanding the scope of our work to reach out to the adolescent refugees and host communities in Adjumani and Arua, near the South Sudanese border. Between them, these regions host over half a million refugees from South Sudan and the Democratic Republic of Congo (DRC). BOSCO Uganda has built access points from locally available recycled oil drums (or in some cases metal plates), which makes them durable. These boxes (or "centres") are equipped with low-power-consuming netbooks and/or thin clients (both computer set-ups were used) that provide access to pre-loaded educational content called "KOLIBRI". However, to make these facilities relevant to the young people at the settlements, BOSCO staff members always interact and discuss the intervention with field-workers, such as case workers and caregivers, who are both refugees and nationals working in the child-friendly spaces and the early childhood development centres managed by Save the Children[3] and World Vision[4] and funded by UNICEF and other stakeholders. As a result, the learning content becomes integrated into the support offered to refugees in order to meet their needs in the most appropriate way. For example, a vulnerable teenage mother will, through content provided, learn skills such as catering, and with the support of her mentor, set up a small baking business.

Through the ICT centres, people living in the refugee settlements have the opportunity to connect to family and friends currently living in other settlements or still in the conflict zone. This could be achieved either through social media platforms or through software applications such as Skype, or similar applications pre-installed on each computer by us.

Although the primary beneficiaries of the intervention are youth living in the refugee settlements, the centre is also open to the general community living around the area. This encourages the possibility of stronger interaction between the Ugandan community and the South Sudanese refugees.

Expanding networks and infrastructures

Funded by AFRINIC under the FIRE Africa Grants[5] we launched a new project called "Expanding BOSCO-Uganda Internet/Intranet Network Access to the Rural Remote Communities in Northern Uganda". The project is focused on expanding the BOSCO solar power and internet infrastructure to remote areas by using long-distance wireless that connects rural areas to a central server station and to the world wide web at minimal running costs. The system is powered by solar energy, and offers VoIP telephony and an intranet which connects all stations through an internal high-speed network and a central server for easy information sharing amongst the users. The BOSCO expansion plan goes beyond borders: in the future we also want to promote ICTs on a non-profit basis outside Uganda and especially in the war-affected areas in South Sudan.

Action steps: Our vision for the future

Our vision for the future is based on our experiences and our achievements. The last 10 years have shown us that when you dream big, big things can happen. In this fast-changing world it is often challenging to define a single future for an organisation like BOSCO Uganda. We will continue to work in our three key areas of renewable energy, entrepreneurship and mentorship, and research and development. Specifically:

- We will be strengthening our ICT backbone and entire infrastructure, for instance, by erecting towers.
- We need funds to support the acquisition of internet bandwidth to help scale up our network in remote areas.
- We need more capacity building in policy and advocacy to help the unconnected get connected in a way that they can afford.

---

3   https://uganda.savethechildren.net
4   https://www.wvi.org/uganda

5   https://www.fireafrica.org

Community Networks

THE 43 COUNTRY REPORTS included in this year's Global Information Society Watch (GISWatch) capture the different experiences and approaches in setting up community networks across the globe. They show that key ideas, such as participatory governance systems, community ownership and skills transfer, as well as the "do-it-yourself" spirit that drives community networks in many different contexts, are characteristics that lend them a shared purpose and approach.

The country reports are framed by eight thematic reports that deal with critical issues such as the regulatory framework necessary to support community networks, sustainability, local content, feminist infrastructure and community networks, and the importance of being aware of "community stories" and the power structures embedded in those stories.

IDRC | CRDI
International Development Research Centre
Centre de recherches pour le développement international

Canada