area. Digital radios also contain GPS (Global Positioning System), enabling tracking on map-based platforms, and have the capability to send text messages. All these functions contribute to enhanced security for aid workers in the field.

An initial partnership for humanitarian emergency response has been established between the Government of Luxembourg and WFP in its position as lead of the ETC. Together these partners are working on the design and roll-out of a new solution called ‘emergency.lu.’ This new approach will include prepositioned satellite bandwidth to cope with the increasing demands of the response community. A further key element will be a new version of the fly-away kit with ‘voice over internet protocol’ (VoIP) technology enabling voice calls to be provided at lower cost. By early 2012, these new kits will be prepositioned across the globe for deployment in emergencies.

Corporate organisations, in particular those within the IT and telecommunications fields, are increasingly participating in the development of new solutions as part of their corporate and social responsibility (CSR) initiatives. Ericsson Response, for example, has been working closely with the ETC in the design and development of ‘WIDER’ (Wireless LAN in Disaster and Emergency Response), a mechanism designed to enable humanitarian workers to access the internet from any suitable device in any emergency-affected area. Functioning in a similar way to Wi-Fi registration procedures at a hotel, for example, WIDER will allow the ETC to better manage access to the network, addressing the challenge of increased bandwidth requirements, and ensuring users are provided with the best services possible.

The last decade has witnessed unprecedented growth in IT and telecommunications in terms of both technology available and services provided in the field. While advances in these areas have enabled new solutions to be applied in emergency response operations, they have also placed greater demands on the ETC to provide more robust services for tools that were not even available in the past.

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Technology in aid of learning for isolated refugees

Petra Dankova and Clotilde Giner

The lack of higher education opportunities for refugees, many of whom flee before being able to complete their education, is a widely acknowledged problem.

Taking advantage of new computer technologies and improved internet connectivity across Africa, the Jesuit Refugee Service’s initiative Jesuit Commons-Higher Education at the Margins (JC-HEM) has since 2010 piloted access to tertiary education in refugee settings, linking university teachers in the US with students in refugee camps in Kakuma in Kenya and Dzaleka in Malawi. JC-HEM enables refugees to study in English, for a Diploma in Liberal Studies via the internet.

Approximately 30 students a year enrol in each of these online learning programmes. The principle is simple: volunteer university teaching staff from several Jesuit universities in the US act as instructors for the students, providing online advice to help with coursework and grading assignments. The American system of credits gets around the problem of ‘permanent temporariness’ that refugees face. For every eight-week course, students get credits that can be transferred to other universities.

The technology

Each site is equipped with a computer lab and internet connectivity, and supported by a resident IT officer (drawn from the programme’s staff) and a refugee IT assistant. It is a daily challenge to ensure smooth operation without power cuts due to technical problems or breakages but initial procurement of computer equipment included purchase of spare units in order to help deal with this reality.

In Kakuma a reliable internet connection is provided by WiMAX from a local Kenyan provider; this is cheaper than satellite, previously the only solution available in such remote locations. Kakuma refugee camp is located in a semi-arid area of north-western Kenya, approximately 95km south of the Sudanese border. Temperatures range from 30 to 40 degrees Celsius and dust storms are common. To protect the equipment, computer labs need glass windows (uncommon by local standards) and air conditioners to regulate the temperature in the computer and server rooms.

“This always reminds me that I am still in the camp where things cannot be totally changed overnight.”
(Maurice, 35-year-old student in Dzaleka, from DRC)

In Dzaleka a system of solar panels was installed to provide a constant renewable energy supply but this was unfortunately damaged by a power surge. Without local technical expertise on solar power, the damaged piece had to be sent to South Africa for repairs and the programme had no reliable source of electricity for more than two months.
Organisations interested in setting up a similar programme should be aware of the investment required by online learning initiatives. Modern computers and secure buildings, a constant supply of electricity and fast internet are all essential requirements, as is appropriate technical expertise in country.

In Dzaleka a small internet cafe with 12 computers is meant to cater for the needs of more than 14,000 refugees. Some are lucky enough to have an internet-enabled mobile phone but calling from a mobile phone is very expensive and the network is also slow and frequently not available.

Required readings and videotaped lectures are downloaded to a local server during low traffic times, mostly at night. Students can also search the internet or use Regis University’s online library for research, and communicate with their teachers. Because there are no scheduled lecture times and students can access study materials at their convenience, students have more flexibility and are better able to juggle their academic responsibilities with volunteer work within the camp, their family duties and the often all-consuming effort of daily life in a refugee camp.

Learning
The majority of students in the programme had rarely used computers or the internet regularly before enrolling for the online Diploma. Despite a ‘bridge course’ at the beginning of the programme designed to give students basic computer skills while also improving their English language and academic writing skills, the learning curve for students during the course of the diploma was particularly steep. Students have had to familiarise themselves with online interfaces; their difficulties highlighted the need for an on-site tutor. The experiences so far show the importance of gaining solid computer skills before embarking on teaching of other content.

JC-HEM students only had experience of face-to-face teaching before joining the programme. Incoming students were concerned about whether this was ‘real’ education and how relationships could be built without physical interaction. Surprisingly, after the first few months of instruction, feedback indicated that one of the most valued features of the experience so far was the ability to build relationships online both with the teachers and other students.

Students all praise their online instructors for “making a real effort to understand difficulties students may be having with their work”. From the experience of the first cohort, it seems that it is important to exchange information, photographs and videos to help both students and teachers understand each other’s environment.

After these first courses, it has become obvious that it is not only the students who benefit. Some of the teachers observed that teaching the refugees has changed their way of looking at certain texts and topics and has challenged them to adapt the curriculum to the particular experiences and learning interests of refugee students, who draw on life experiences which are very different from students who typically enrol on such online programmes in the US. Teachers reported that these experiences will influence the way they teach their American students too.

Future programmes
Students in Dzaleka report increased self-esteem and energy levels, and also that “use of the internet allowed us to increase our status in refugee society” (Joel, 40-year-old Rwandese student in Dzaleka). An over-arching feature of the JC-HEM programme is the focus on using education to benefit both the students and their communities. As explained by Vincent, 31-year-old Congolese student in Dzaleka, “This education remains a great opportunity for me to help and assist different people from different communities.” Those involved in the programme are currently looking at ways to enable students to give something back to the community, such as tutoring secondary school students and helping computer students to use the internet.

Online higher education programmes aim to empower refugees who have been placed at the margins by virtue of their exile. It is therefore crucial to ensure that refugees women take part fully in online learning initiatives. Only two students out of 30 in Dzaleka and seven out of 35 in Kakuma currently enrolled in the Diploma programme are women. For the next intake, programme staff are working to reach more women; getting more women involved in higher education programmes requires ensuring access to crèche services for young mothers, as well as organising awareness-raising events targeting women.

The use of technology to bring tertiary education to refugee camps is not a solution to protracted refugee situations but is nevertheless a welcome tool to assist refugees in continued education and development of their human potential in exile.

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1. A similar programme for urban refugees is underway in Aleppo in Syria.
2. WiMAX (Worldwide Interoperability for Microwave Access) is a wireless broadband access technology that provides fixed and mobile internet access.