CISR’s open source centre evolves

By Alastair Otter
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Almost two years after it was launched to promote the understanding and use of open source software in South Africa, the CISR’s Open Source Centre has been incorporated into the newly formed Meraka Institute and given a healthy financial boost. The Meraka Institute is now focused on the growth and promotion of ICT and technical skills in South Africa through the use of learnerships and partnerships with tertiary institutions. The new Meraka Institute has already secured around R50 million in funding for this year and is already looking to securing next year’s funds.

The new institute, formally known as the African Advanced Institute for Information and Communications Technology, was launched last week by communications minister Ivy Matsepe-Casaburri and department of science and technology deputy minister Derek Hanekom.

The new Meraka Institute will be primarily funded by government through the department of communications and the department of science and technology.

"Essentially Meraka has had a huge upgrade," said Nhlanhla Mabaso, open source centre manager. Mabaso, who led the CISR’s open source centre for past year and a half, says the new mandate gives the centre far greater scope in its work. He says the new focus of the institute will be on developing skills across the board and not just the advocacy of open source software, although given government’s public stand on OSS, open source will be a key component of the skills development programme.

Mabaso says the institute will be looking to strengthen ICT skills by promoting programmes that give learners hands-on experience. He says a typical problem facing the country is graduates of ICT institutions unable to gain work experience, making them less attractive to potential employers. One of the approaches the institute hopes to adopt is what Envir Fraser, Meraka business development manager, calls the "high throughput employment model". "Meraka’s role will be to define and lead the development of ICT systems than can contribute to solving the developmental problems in South Africa and we will take graduates and give them experience that will stand them in good stead as both entrepreneurs and employees."

But, says Fraser, the intention is not to duplicate or replace tertiary institutions but to work with them to extend the learning process.

Announcing the new institute, Matsepe-Casaburri said “the institute is regarded as a significant intervention in the South African ICT research and development space. It derives its mandate as a national strategic initiative from President Thabo Mbeki’s 2002 State of the Nation Address, in which he announced the concept of a university for ICT.”

Hanekom said “the strategy will outline a plan of action to create an
enabling framework and innovative environment for the advancement of ICT research and development and innovation, in a systematic fashion, within the context of the National R&D strategy. The vision is to make South Africa a vibrant, innovative, inclusive and accessible knowledge society. Our challenge is to create an environment where ICT-based innovation flourishes, originating from differing levels of society.

Although only just formed the institute already has a number of key programmes it is pursuing. These include Wireless Africa, human language technologies, the National Accessibility Portal, the Digital Doorway programme, the establishment of a centre for high-performance computing and of course open source software.

**Wireless Africa**

The Wireless Africa programme promotes research that will narrow the so-called digital divide. The programme has two core components:
- Social research that looks at projects in communities in South Africa, Angola and Mozambique in order to create sustainable, community-owned wireless infrastructure for applications in health, education and related service delivery.
- The removal of technology barriers to enable bottom-up creation of wireless access infrastructure. This includes mesh networking, low cost voice/messaging devices, low cost access points and antennas, and network security.

**Human Language Technologies**

The aim of the programme is to overcome the barriers posed by language, illiteracy or disability. A major long-term goal of the group's advanced research is the creation of automatic translation services.

**The National Accessibility Portal**

The National Accessibility Portal (NAP) is intended to assist and integrate disabled citizens into society through the use of ICT. Currently there are around four million South Africans with severe or moderate disabilities and less than 1% are employed gainfully and financially independent. The prototype of the portal uses open source software.

**The Digital Doorway**

The Digital Doorway is an initiative of the department of science and technology and the Meraka Institute to use minimally invasive education for large-scale computer literacy. Communities can teach themselves to obtain functional computer skills, through having free, 24-hour access to a robust, freestanding computer terminal with motivating content.

**Centre for high-performance computing**

A Centre for high-performance computing is currently being formed in collaboration with a number of higher education institutions. The aim is to provide high end computing and expertise for research, including the sciences, medicine, engineering and social sciences. Among other things, the centre will foster research to address challenges such as HIV/AIDS and climate change, and will grow computational research to support, for example, urban and regional planning.

**Meraka?**

Meraka is a Sesotho word meaning "common grazing", denoting sharing, mutual benefit and the potential for prosperity. The name Meraka is intended to represent the collaborative and open environment the institute hopes to foster.