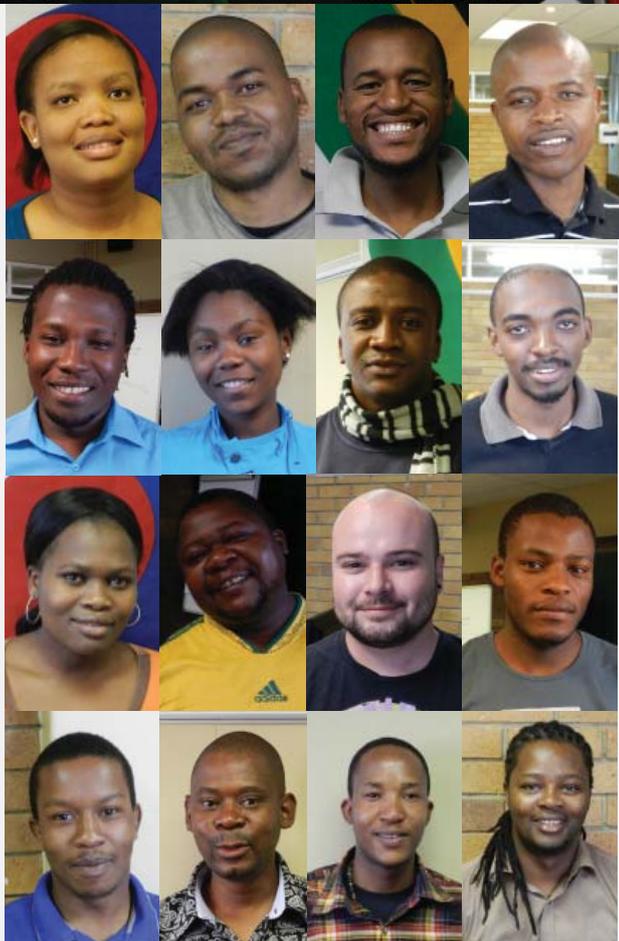


## Edition 4, 2012



- p1** Department of Communications hosts its first Annual ICT INDABA in Cape Town
- p1** Strengthening the e-skills collaborative partnership network
- p1** An e-skills knowledge production and coordination hub in Limpopo
- p2** Moving towards a local approach to promote e-inclusion and social innovation: Investigating the Living Labs methodologies
- p2** e-SKPCH events and contact details
- p3** Moving towards building e-skills capacity within government for effective service delivery
- p4** Gearing the required skills for South Africa's digital and knowledge-based economy
- p5** Preparing for mobile innovation application development: Blackberry Apps Lab launched at the Gauteng e-skills knowledge production and coordination hub
- p5** ICT trend words – gamification vs serious gaming
- p6** Partners in the Department of Communication's e-Skills Institute multi-stakeholder partnership collaboration

innovative  
responsive  
developmental  
enabler  
collaborative

The e-Skills Institute is a national catalyst, facilitator and responsive change agent in the development of SA, within the globally evolving information and knowledge-based environment, by leading the creation of key e-skills development strategy, solutions, practises and the implementation thereof, to benefit the total population. The e-Skills Institute focuses primarily on four components: research, teaching and learning, innovation and a monitoring and evaluation framework.

## Department of Communications hosts its first Annual ICT INDABA in Cape Town

Edition 4, 2012  
page 1

The Department of Communications hosted its first ICT Indaba from 4-7 June 2012 in Cape Town. The event was attended by international guests from Brazil, India, the ITU, international and local ministers, officials and delegates to craft a much-needed framework that will position Africa on a trajectory to sustainable socio-economic development through the effective application of ICTs.

### A connected future

Leaders committed themselves to a connected future where in the medium term they aim to fast-track broadband penetration to 80% of African citizens by 2020. This is a necessary action to ensure sustainable growth and prosperity, especially amongst the poorest of the poor and SMMEs in the country and the continent.

### Closing the skills gap

Other key areas of cooperation identified include that of closing the skills gap within the country and the continent at large. This is key in promoting sustainable socio and economic development through local innovation. The potential that ICT offers to developmental countries can only but reposition the continent to move away from being a consumer of technologies. The first step in this direction

is that of the local manufacturing of set top boxes for digital migration.

### Attaining the Millennium Development Goals

Delivering broadband to every citizen on the continent, coupled with skills capacity development, will accelerate the attainment of the Millennium Development Goals.



Points in the article were drawn from the Minister of Communications, Ms Dina Pule's speech at the ICT Indaba.

## Strengthening the e-skills collaborative partnership network

Two additional collaborative partners have committed to e-skilling South Africa for equitable prosperity and global competitiveness. These include the Core Group, which is responsible for Apple in South Africa, and Neotel.

### The Core Group

The Core Group has been working in South Africa promoting the use of technology in education. They have been running pilots in the Eastern Cape and elsewhere in the country and will now develop local relevant mobile applications in collaboration with the e-Skills Institute.

### Neotel

Neotel and Department of Communications through its e-Skills Institute (e-SI) have entered into a collaborative partnership to address the e-skill challenge facing South

Africa. A Memorandum of Understanding has been signed with Neotel as part of the efforts to deliver on the mandate of e-SI.

The purpose of this agreement is to provide the basis for a collaborative working relationship between Neotel and the e-SI to identify areas of co-operation in the development of advanced e-skills (ICT) in areas needed for the information society and knowledge economy including that of research and evaluation across the full spectrum of South African society (especially in the education, IT, BPO, finance, banking and insurance industries).



Sunil Joshi, Managing Director & CEO of Neotel

## An e-skills knowledge production and coordination hub in Limpopo



The Department of Communications through its e-Skills Institute (e-SI) have partnered with the University of Limpopo to establish a provincial e-skills knowledge production and coordination hub.

### The hub focus

The hub will focus on e-health, starting with an environmental scan of all e-skills related activities in the province. The scan will be done in partnership with LIMDEV, the local development government agency in the province, and the Provincial Government of Limpopo.

## Initiating a collaborative approach to building e-skills for effective service delivery within an information society and knowledge-based economy

Based at the Durban University of Technology, the KwaZulu-Natal e-skills knowledge production and coordination hub's primary focus is on e-enablement of government services to improve service delivery and access to service. On 31 May 2012, the hub hosted a breakfast workshop with key stakeholders including surrounding municipalities. The intention was to create awareness of the Department of Communication's e-Skills Institute (e-SI) and of the work of the KZN e-skills hub with its research and curriculum development around e-enablement of government services.

The workshop also entailed collaborating with the municipalities, key stakeholders, to start the journey of finding methodologies that will align and improve e-enablement of government services, develop e-skills competencies and strengthen the ability to leverage technology to improve service delivery and stimulate socio-economic growth. The dialogue created at the workshop was based within understanding that the long-term goal is to improve South African lives through promoting equitable distribution of wealth and building an inclusive information society and knowledge economy.

### Awareness and participation

Professor Bawa, Vice Chancellor of DUT and responsible for e-skills activities in the Province opened the event and highlighted the need for e-skills capacity development

Professor Ahmed Bawa, Vice Chancellor of DUT



The workshop group



and the smart use of technology. Dr Harold Wesso, Deputy Director General of the e-SI (of the Department of Communications) and acting CEO of the National Electronic Media Institute of South Africa (NEMISA), and Mymoena Sharif of the e-SI also presented, contextualising the need for South Africa to be part of a knowledge-based economy and the role that the e-SI plays within this space.

It is the age of technology and South Africa needs to be part of the universal language of data, broadband and connectivity. Three steps have to be followed in order to meet government's target to have an e-literate nation by 2030. These include getting the nation e-ready (which means introducing the e-skills initiative to average citizens and sparking interest), empowering thought leaders to further drive the initiative, and lastly capacitating all citizens (including women, youth and CBOs, NGOs), businesses (including SMEs), education (public and private institutions), and government departments (local, provincial and national) to use technology to their advantage.

Results of the KZN hub's environmental scan were presented with an emphasis on addressing the identified e-skills gaps. The role of research and the national research network for e-skills (ReSNES) was explained in terms of ensuring the quality and appropriateness of the programmes that are developed.

### Collaboration on the curriculum

With the national agenda of e-skilling 10 million South Africans over the next five years and within the scope of e-enablement of government service delivery, the KZN hub is advocating, planning, researching, conceptualising and delivering curriculum around e-enablement of government services.

A draft curriculum to train middle and upper management government employees was researched in partnership with Provincial Government of KwaZulu-Natal, UNDP including the World Bank, CISCO and Enterprise Ireland and developed by the hub and this was presented at the workshop and was welcomed by the members. The content was interrogated by participants and recommendations proposed. A number of the municipal employees from the audience asked to be in the pilot course to be delivered in July this year.

The KZN hub's mandate to provide the e-enablement of government services process will be scaled up to encompass national scalability. An e-enablement of government services road show, to take the programme to local municipalities, will be the next step in the process

### Engagement

Guests included participating local municipalities, provincial government officials, industry partners and other local universities (UNISA and the University of KwaZulu-Natal). To move towards the goal of improved service delivery, the process was consultative, collaborative and bottom up. There was clear engagement through the various municipal levels and with other partners.

## Moving towards a local approach to promote e-inclusion and social innovation: investigating the Living Labs methodologies

From 15-16 May 2012, a two-day workshop on Living Labs in South Africa was held at the Western Cape e-skills knowledge production and coordination hub (WC e-skills hub) based at the University of the Western Cape. The WC e-skills hub's mandate is that of e-inclusion and social innovation.

### The Living Labs concept

Living Labs refers to studying the use of technology, such as mobile or digital, in a real-life environment. The focus is on studying the behaviour of people around technology, from appropriation and domestication to alternative uses and identifying gaps.

Innovation is also a strategic goal of Living Labs. Often the manner in which technology is used is different from its intended purpose and this is particularly so in Africa. The Living Labs concept allows gaps (such as skills) and opportunities to be identified, among other research areas. It addresses the needs of communities while simultaneously focusing on improving e-skills.

The purpose of the workshop was to gain clarity on the Living Labs methodology and its place within the e-skills agenda and within the context of South Africa. With South Africa's developmental environment, adaptation may be necessary.

### National and international examples

Guest speakers included Professor Pieter Ballon, Director of IBBT-iLab.o of Belgium which sets up test and experimentation platforms and performs Living Lab research for achieving policy and business goals using

stakeholder co-design. Living Labs in South Africa (LLISA), a programme by the CSIR and funded by the Finnish Embassy, made a number of presentations that included perspectives and lessons learnt from the various Living Labs in the provinces.

Further case studies and presentations looked at how the Living Labs methodology has been implemented in a number of countries, in some cases following the European model and in others adapting the methodology to the environment. Other key speakers included representatives from the World Bank. The City of Cape Town was also represented and will be a stakeholder in future programmes.

### Way forward for South Africa

The workshop culminated in a brainstorm on the way forward for South Africa within the e-skills agenda. It is clear that South Africa presents a different model to that of Europe (for example the nature of our communities and the grassroots community drive) and this needs to be taken into account.

### Pilot project

The Western Cape e-skills hub will be conducting a pilot project and the intention is to use the methodology within the smart knowledge production centres (which have been an integral part of the e-SI agenda). The model will take into account rural, peri-urban and urban areas across South Africa. It will fall under the research component of the smart centres.

## e-SKPCH events

KZN e-SKPCH events	Gauteng e-SKPCH events	Western Cape e-SKPCH events
<b>June 2012</b> <ul style="list-style-type: none"> <li>Monthly Stakeholders Forum on the fourth Wednesday</li> <li>e-Skills Enablement for Government Services iNdaba</li> </ul>	<b>May - June 2012</b> <ul style="list-style-type: none"> <li>Incorporating multimedia Blackberry mobile apps course</li> </ul>	<b>August - September 2012</b> <ul style="list-style-type: none"> <li>13-17 Aug: e-Skills workshop – cohort 2 – face-to-face</li> <li>20 Aug-14 Sep: cohort 2 – online phase</li> </ul>
<b>July 2012</b> <ul style="list-style-type: none"> <li>Monthly Stakeholders Forum on the fourth Wednesday</li> </ul>	<b>July and October 2012</b> <ul style="list-style-type: none"> <li>Gauteng e-SKPCH stakeholder meetings</li> </ul>	<b>October - November 2012</b> <ul style="list-style-type: none"> <li>8-12 Oct: e-Skills workshop – cohort 3 – face-to-face</li> <li>15 Oct-9 November: cohort 3 – online phase</li> </ul>
<b>August 2012</b> <ul style="list-style-type: none"> <li>Monthly Stakeholders Forum on the fourth Wednesday</li> </ul>	<b>April - December 2012</b> <ul style="list-style-type: none"> <li>Regular presentation of e-skills courses for entrepreneurs and in the creative industries</li> </ul>	
<b>September 2012</b> <ul style="list-style-type: none"> <li>Monthly Stakeholders Forum on the fourth Wednesday</li> </ul>	<b>July – December 2012</b> <ul style="list-style-type: none"> <li>Incorporate Blackberry mobile apps development as part of a BCom (Honours) Informatics course and in Usability Testing</li> </ul>	
<b>October 2012</b> <ul style="list-style-type: none"> <li>Monthly Stakeholders Forum on the fourth Wednesday</li> </ul>	<b>July – August 2012</b> <ul style="list-style-type: none"> <li>Host a distinguished international academic as a visiting professor</li> </ul>	
<b>November 2012</b> <ul style="list-style-type: none"> <li>Monthly Stakeholders Forum on the fourth Wednesday</li> </ul>		

**Contact details for the e-Skills Institute**

- Mymoena Sharif,  
[mymoena@doc.gov.za](mailto:mymoena@doc.gov.za)

## Gearing the required skills for South Africa's digital and knowledge-based economy

Edition 4, 2012  
page 4



On the 5 April 2012, 21 delegates graduated from pilot training in embedded systems. This is the first training of its kind in South Africa and is an element of South Africa's preparation for a digital and knowledge-based economy.

As part of the national e-skills agenda, the e-Skills Institute (e-SI) of the Department of Communications (DoC) piloted e-skill courses that are facilitated, in collaboration with local universities, further education and training (FET) colleges and corporate schools, to impact on the employment readiness of learners.

This course will now become part of mainstream education and structures are being put in place to build new e-skills (ICT) capacity within the country to offer such a course. Currently over 60 delegates have been trained and the programme is in the process of being accredited.

Some of the delegates from the first embedded systems pilot training

### Strengthening the e-skills base

The experiential-based embedded systems training came about through a memorandum of understanding (MOU) between the e-SI of the Department of Communications and the Ministry of Public Administration and Security of the Republic of South Korea.

As part of the agreement, the South Korean Government funded a state-of-the-art Embedded Systems Laboratory at the Telkom Centre for Learning in Olifantsfontein. This is a multi-stakeholder collaboration that involves the e-SI, its provincial e-skills hubs, Telkom and the Republic of South Korea.

With the intention of collaborating on knowledge exchange and skills transfer, an MOU was signed between Konkuk University of the Republic of South Korea and the e-SI of the Department of Communications. Representatives from partner universities, Vaal University of Technology and Walter Sisulu University, underwent an

advanced and accelerated Train-the-Trainer programme in South Korea. The trained delegates have been running the pilot courses in embedded systems training thus strengthening and growing the e-skills base in South Africa.

### e-skilling for entrepreneurial development

Embedded software is integral in consumer electronics including robotics, portable devices, DVD players, GPS receivers, printers and set top boxes. With the government endorsement of the Digital Migration Standard (DBV-T2), there is an opportunity for local entrepreneurs to develop set top boxes for the retail market using the skills of the embedded systems developers.

Below are representatives from partner university, Vaal University of Technology, who underwent an advanced and accelerated Train-the-Trainer programme in South Korea.

The state-of-the-art Embedded Systems Laboratory at the Telkom Centre for Learning in Olifantsfontein



## Preparing for mobile innovation application development: BlackBerry Apps Lab launched at the Gauteng e-skills knowledge production and coordination hub

Edition 4, 2012  
page 5

On 30 May 2012, the BlackBerry Apps lab was officially opened at the Gauteng e-skills knowledge production and coordination hub based at the University of Pretoria. This came about through a Memorandum of Understanding between the e-Skills Institute (e-SI) of the Department of Communications and Research In Motion (RIM) which owns the BlackBerry brand. It is positioned as part of the e-skills agenda to close the e-skills gap.

### Focus on mobile applications development

The BlackBerry Apps lab focuses on mobile applications development and is part of the innovation application factory attached to the Gauteng hub. The lab will provide local developers, including University of Pretoria students, faculty and staff, local start-ups, social-entrepreneurs and others, with access to industry-leading resources in development, marketing, sales and training to help them expand their ideas and business opportunities. RIM will work with developers to create locally and regionally relevant applications for BlackBerry smartphones, the BlackBerry PlayBook and the upcoming BlackBerry 10 platform.

This Lab is part of RIM's developer programme which spans throughout Africa and includes countries such as Egypt, Kenya and Nigeria. The aim of this programme is to encourage developers to create locally and regionally relevant applications using the BlackBerry platform. The programme provides institutions with materials and content to teach mobile application development, and covers a network of 640 institutions across 113 countries.

### Economic growth and delivering services

Noted guests and speakers that attended the launch include Director General of the DOC, Ms Rosey Sekese; Professor Stephanie Burton, Vice-Principal of Research

and Postgraduate studies at the University of Pretoria, and RIM Africa MD, Bob Bose. Mr Bose noted that African economies are expected to rise by an average of 6% in the coming year, and that RIM believes this will be facilitated by the unprecedented adoption of mobile technology which is driven largely by the demands of the African youth and business communities.

The BlackBerry Apps Lab is equipped with state-of-the-art technology, in the form of computers, internet access and a BlackBerry Enterprise server. Developers in the lab will be encouraged to create apps that positively impact the South African economy by providing mobile data solutions for key services such as health, education and commerce.

### Building local innovation capacity for the mobile sector: BlackBerry Train the Trainer

Prior to the opening of the BlackBerry Apps Lab, a Train-the-Trainer workshop was hosted at the University of Pretoria for the lab managers. With the massive uptake of mobile technology in Africa, increased mobile applications development will open up more markets and stimulate the economy. The train-the-trainer programme allows for the scaling up of this e-skills initiative as well as making the development environment more conducive to localisation.



Professor Stephanie Burton,  
Vice-Principal of Research and  
Postgraduate studies at the University  
of Pretoria

## ICT trend words – gamification vs serious gaming

e-Skilling is part of a world that is continually evolving with new concepts developed constantly. To keep up with the latest trends, the e-Skills Institute brings you the debates, new ideas and the latest technologies. In this edition, we look at the difference between gamification and serious gaming.

### Gamification

'Gamification' was second in the Oxford Dictionary's word of the year last year. It refers to "the application of typical elements of game playing (e.g. point scoring, competition with others, rules of play) to other areas of activity" according to their definition. It has also been included in Gartner's hype cycle, which is a graphic representation of the maturity, adoption and social application of specific technologies.

The applying of game mechanics, such as leveling up, has been used for a long time. Take the example of advertising at an exhibition where you can get gold, silver or platinum sponsorship. In essence, gamification uses entertainment and competition to increase engagement.

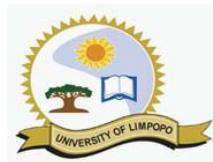
### Serious games

'Serious games' is a term applied to using games with a purpose other than entertainment, usually to apply problem-solving techniques to real-world challenges. It has a serious subject with serious goals – such as teaching workers a certain job procedure. The approach allows for a complex context to be understood within a simpler gaming framework. It can be used for training, education, health, public policy and strategic communication objectives, among other uses.

## partners in the Department of Communication's e-Skills Institute multi-stakeholder partnership collaboration



education



government/South Africa



civil society



business



global developmental  
partners

Please note that this list will be extended as there are Memorandums of Understanding in progress across all sectors.

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