

## Edition 9, November 2012



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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, practices 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.

## Preparing for national impact 2013 and beyond

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The second e-Skills Summit of South Africa 2012 and the International Telecommunications Union's (ITU) Global ICT Forum on Human Capital Development 2012 was held from 22-25 October 2012 in Cape Town.

It brought together local and international delegates from more than 50 countries, resulting in productive discussions with information willingly shared. This type of information sharing is essential for developmental states to inform planning and implementation of approaches for an ICT-enabled world.

### Taking the e-skills agenda forward

The discussions provided key issues for consideration:

- **The bottom-up approach:** There was a reinforcement that the main issue for an ICT-enabled future is the need to focus on people and their perspectives, needs and capacity, regardless of levels of formal education.
- **The top-down approach:** There is a need for a nationally-coordinated policy framework to deliver on the social appropriation of ICT for local benefit. It is considered an essential component for success.
- **The inside-out approach:** For innovation to flourish, the panellists reinforced the need to 'think outside the box' and to develop new approaches for delivery.
- **An outside-in approach:** The discussions strongly endorsed the need for the development of formal collaborations across stakeholders – business, government, education, civil society and organised labour. This translates into the aggregation of both supply and demand.

In summary, the direction of the South African e-skills agenda is towards a combination of approaches – top down, bottom up, inside out and outside in. This translates into formal collaboration with all stakeholder groups with the focus on agreed goals.

South Africa's goals have been developed and are expressed in the Medium-Term Strategic Framework 2009-2014 Plan and the longer-term National Development Plan 2030. The key issues involve addressing inequity and building a socially inclusive and globally competitive economy – goals clearly shared by other developmental states.

### The core for e-skills: e-Social Astuteness

Much of the discussion was around the digital divide and digital dividend, particularly in relation to the rollout of digital TV and the associated mechanisms for making set-top boxes available to deep rural and peri-urban environments. The questions highlighted more than just the provision of hardware. The primary issue was in relation to how people can best make use of this opportunity to deal with their real-life issues, in other words, e-Social Astuteness.

Not only was e-Social Astuteness strongly endorsed at the Summit but it is integral for both the ITU's Global ICT Forum for Human Capital Development and the e-Skills Institute (e-SI) of South Africa. It talks directly to the concepts that the Minister of Communications highlighted at the recent Innovation Africa Summit and that the Deputy Minister of Communications outlined in the Opening Address at



*Dr Harold Wesso (e-Skills Institute/ Department of Communications), Mr Brahim Sanou (ITU), Ms Stella Tembisa Ndabeni-Abrahams (DoC), Charmain Houvet (Telkom), Mr Walter Folotalu (Solomon Islands)*



*Delegates at the e-Skills Summit of South Africa 2012 and the International Telecommunications Union's (ITU) Global ICT Forum on Human Capital Development 2012*

### Key messages from the e-Skills Summit 2012

Following are the key messages from the second e-Skills Summit of South Africa 2012:

- Formalised multi-stakeholder collaboration
- Government-led
- Knowledge society
- Leadership
- Entrepreneurship
- Innovation and creativity frameworks
- Aggregation (measurement)
- e-Social Astuteness
- M-society
- M-learning

the Forum/Summit.

e-Social Astuteness recognises opportunities in an ICT-enabled world for all people regardless of their formal education, employment status, location, age, gender or physical disablements. Capable e-users are fundamental to the success of new ICT-enabled approaches to service delivery.

Consequently, it is in the best interest of government, business and education to effectively resource its human capacity base. The e-SI is working with government processes to establish an e-Readiness Fund that will enable contributions to this essential matter.

### Continuing with its mandate: the e-Skills Institute

The e-SI was established to guide South Africa in socially appropriating ICT for local benefit for equitable prosperity and global competitiveness. This involves coordinating and developing a unified approach to building local human capacity that results in effective users and developers of technology.

The basic pillars for the e-SI approach were strongly endorsed at the Summit and Forum. The e-SI provides the policy framework for formal collaborations across stakeholder groups (business, government, education,

organised labour, civil society and global development partners) to build e-Social Astuteness in South Africans so that efforts in service delivery across business, government and education can be maximally adopted.

The e-SI recognises that social media and mobile devices challenge the way in which people want to interact with every facet of the world they live in. Consequently, the organisation is moving quickly to cement them into established practice in a planned and formal way.

Along with its stakeholders, the e-SI has developed a model which is fit for purpose in South Africa. This model has been tested and is now ready to scale with the consequent substantive impact in South Africa.

### Measuring impact and developing policy

Key e-skills concerns are how to measure impact, develop evidence-based policy that is responsive to rapidly-changing circumstances, and to create a suitable praxis to support this. To accomplish this goal, the e-SI has established the national Research Network for e-Skills (ResNeS).

ResNeS provides an active base to bring together the best researchers in South Africa in collaboration with like international researchers. The aim is not only to contribute meaningful concepts to the discourse but also to grow the capacity of South African researchers within the e-skills environment.

### Global recognition

Within the context of the national e-Skills Agenda for South Africa 2012, the ITU Forum took note of the achievements made in promoting the e-skills agenda in South Africa with specific reference to:

- A clear alignment within South African government development strategies
- An internationally-recognised South African coordinating platform that engages government, education, business and civil society in addressing the lack of e-skills
- A legitimate platform to increase awareness of current practices and development of e-skills capacity in South Africa and across the African continent
- A roadmap to advance e-skills development in South Africa for equitable and global competitiveness

The ITU Forum also urged other countries to emulate the example set in South Africa and implement similar e-skills programmes for their people. It urged the ITU to support governments in developing national e-skills agendas.

The South African Department of Communications (through the e-SI) and the ITU have agreed to formalise a close working relationship with the ITU Telecommunications Development Bureau. This includes the newly-launched ITU Academy, a global platform for capacity development that seeks to develop and deliver high-quality training in all ICT-related fields.

### NeSPA 2012

The second NeSPA 2012 will be ready for stakeholder comment before the end of the year.

### Some of the Twitter feed during the e-Skills Summit 2012 and the ITU Forum 2012

- jacqui\_batch: #eskillsSummit12 the idea of MOOC not viable for Africa yet - Why not?
- DocZA1: #eskills Find out more about the e-Skills Institute here: <http://t.co/mGcef99b> or follow the Summit on Twitter @eSkillsSummit12
- Click4Koru: @eSkillsSummit12: "Learn from the past. Prepare for the future. Perform in the present." ~ Gary Mack"
- karitz: How do you teach creativity? By thinking outside the box. What is a box? #eskillssummit12 (Doing things differently = out of the box doing)
- pauljconnolly: #eskillssummit12 new business models are required to support eCoaching which will be a catalyst to turning knowledge into capacity
- miconyango: Building e-capacity to respond the country's-SA national strategic developmental strategies and policies, #eSkillsSummit12 @tandaaKENYA
- mbotwice: Shafika Isaacs (UNESCO): Mobile phones are critical for the learning environment for addressing systemic failures #eSkillsSummit12
- DeonHalls: What role can FET Colleges play? The have Open Learning Centres that could also serve as CKCs #eSkillsSummit12

# Highlights from the Deputy Minister of Communications Ms Stella Tembisa Ndabeni-Abrahams' speech at the e-Skills Summit 2012

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*Ms Stella Tembisa Ndabeni-Abrahams, Deputy Minister of Communications, South Africa*

To successfully address inequity in the 21st century, Ms Stella Tembisa Ndabeni-Abrahams, Deputy Minister of Communications, noted that it will need to involve the social appropriation of ICTs for local benefit; that the new approaches must recognise that social and cultural aspects are vital. Furthermore, to make this Africa's time she commented that it is necessary to move past the 'doing to' and the 'doing for' paradigm into a 'doing with' approach and that the new forms of ICT can facilitate.

### Aggregation

To make use of opportunities, the Deputy Minister promoted the aggregation of policy and efforts across traditional government service departments, education, business, civil society and organised labour, as well as the need to establish and provide a collaborative aggregation framework at the community level to achieve a positive impact against national goals.

### Building e-Social Astuteness

The focus needs to be on building local e-Social Astuteness and responding to people's needs regardless of formal

educational qualifications and regardless of the complexity of government service delivery options.

Deputy Minister Ndabeni-Abrahams noted that the concept of 'e-Social Astuteness' is at the heart of the e-Skills Institute's efforts as a catalytic, responsive, collaborative and innovative leader in building our human capital for equitable prosperity and global competitiveness in an increasingly ICT-enabled world. It is also necessary for universities and FET colleges to become more engaged with developing, monitoring and evaluating e-Social astuteness.

### Other key points

Other points centred around strengthening research capacity to influence policy formulation and Government leadership using a 'hands off' approach.

### Multi-stakeholder collaboration

The Deputy Minister concluded with multi-stakeholder collaboration: "We are building a unifying entity that can bring together the best abilities across Government, Business, Education, Civil Society and Organised Labour; one that can catalyse collaborative effort; one that can interact with our partners across Africa and in the developmental world; one that can build new approaches to evaluating impact against the real challenges we face in dealing with inequity; one that looks beyond the technology to the social appropriation of ICT and one that builds 'e-social astuteness' across the full spectrum of our society."

*Some of the speakers at the second e-Skills Summit of South Africa 2012 and the International Telecommunications Union's (ITU) Global ICT Forum on Human Capital Development 2012*



### Recognising the strength of the multi-stakeholder partnership

The e-SI's journey over the last four years has been challenging and time consuming. Key stakeholders need to be recognised for their assistance:

- business partners in South Africa and internationally (particularly CISCO and Telkom)
- international agency partners (particularly the UNDP)
- educational partners (particularly our university partners, the University of Pretoria, University of the Western Cape, Durban University of Technology, Walter Sisulu University and the Vaal University of Technology).

The e-SI currently has Memoranda of Understanding with more than 50 institutions across South Africa and internationally and thanks them all for their cooperation and support. For without their trust and inputs, the e-SI could not have developed its model which is fit for purpose in South Africa.

## Developing e-skills strategies for Creative Industries to promote job creation

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Understanding the concept of Creative Industries and how it is positioned digitally within a South African context is an important element of the e-skills agenda. Knowledge economies place greater emphasis on using ICTs to creatively generate new ideas, concepts, products and services to derive greater efficiencies and economies of scale.

Skilled and well-trained people and the ICTs they use will be a key resource for attracting investment. As such, Creative industries has been earmarked as an area of growth that will not only strengthen the economy and combat unemployment but position South Africa globally.

### Creative Industries colloquium and workshop

The Gauteng e-Skills Hub in collaboration with the national Research Network for e-Skills (ResNeS) and the Western Cape e-Skills Hub held the first 'Creative Industries in a Digital Economy' Workshop and Postgraduate Colloquium on 26 October 2012. The event took place at the University of Western Cape following on the e-Skills Summit 2012.

Attended by more than 40 delegates from government, industry, civil society and education, there were also visiting scholars from the Faculty of Creative Industries at Queensland University of Technology (QUT), Australia. (Dr John Banks is the Programme Coordinator for QUT's Master of Creative Industries and Dr Ruth Bridgstock is also involved in the Master's programme with a focus on the Creative Workforce.) At the postgraduate colloquium five post-graduate students presented abstracts from their Masters and PhD work.

### Collaborative creativity and inter/trans disciplinary

Two of the prevailing principles that emerged from the workshop and that are of significant benefit to South Africa were the notions of collaborative creativity and inter/trans disciplinary. Global trends show that there is a gradual departure from individual creativity to collaborative creativity. It is here that inter- and transdisciplinarity is of critical importance.

Interdisciplinarity involves the combining of two or more academic disciplines into one activity (such as in a research project). It is about creating something new by crossing

boundaries, and thinking across them.

Transdisciplinarity illustrates areas that cross many disciplinary boundaries to create a holistic approach. It applies to efforts focused on problems that cross the boundaries of two or more disciplines, such as research on ICT for healthcare, business and development.

Transdisciplinarity can also refer to concepts or methods that were originally developed by one discipline, but are now used by several others.

The tensions that exist at the boundaries of different disciplines are often perceived to be a problem, yet are opportunities for creative ideas.

### Understanding Creative Industries professionals

There are spillovers from the Creative Industries into the creative economy from two angles: Creative Industries professionals who are embedded in the economy and those who are specialists.

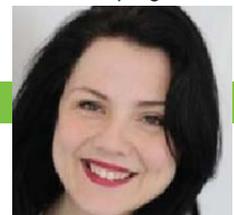
The main focus of attention is often on the specialists who create artefacts that we identify with, such as arts, crafts and music. The other group doesn't often receive much attention yet holds greater promise for South Africa in dealing with unemployment, that is, the embedded group. These are the creative industries professionals working in different non-creative industry sectors creating new innovations within those sectors. A global example is the Apple founder, Steve Jobs.

### Scoping the Creative Industries in South Africa

The first step in developing this sector is to create essential baseline studies against which further development is measured. The study will assist in defining the nature and scope of the Creative Industries and its effect on the digital economy of South Africa.

Further information on the outcomes of the workshop and colloquium will be given once the report has been finalised.

*International visiting scholars from Queensland University of Technology, Australia: Dr John Banks and Dr Ruth Bridgstock from QUT's Master of Creative Industries programme*



*(Below) Delegates at the 'Creative Industries in a Digital Economy' Workshop and Postgraduate Colloquium*



## Australia and New Zealand collaboration to support NeSPA 2012

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Post the e-Skills Summit 2012, the South African National e-Skills Plan of Action (NeSPA) moves into its second phase. The focus is on the development of e-skills for a knowledge economy with the intention of impacting the lives of 10 million people over the next three to five years.

The e-Skills Institute (e-SI) model is premised on multi-stakeholder collaboration and combining the resources and talents of academics, industry, government, education, organised labour, civil society and the international community. With respect to this collaborative framework and with the intention of supporting NeSPA 2012, the e-SI and some of its stakeholders recently visited Australia and New Zealand from the 2-18 November 2012.

The focus was on a shared understanding of how the e-skills activities in Australia and New Zealand can further strengthen NeSPA 2012 for scalability and impact. There were also specific discussion areas:

- The approach in accelerating e-skills and content capacity development for impact in business, government, education and civil society for the rollout of Australia's National Broadband Network (NBN).
- Tackling issues such as skills capacity development and underpinning adoption practices across the socio-economic spectrum with the focus on job creation and new job opportunities.
- Relationships between government, business and education in the adoption of ICT for job creation and innovation.
- Approaches being used to stimulate innovation and creative industries, especially within a rural and peri-urban context.
- Frameworks and approaches being used to develop relevant integrated evidence-based research and monitoring and evaluation agendas for the information society and

knowledge-based economies.

- Opportunities for collaborative research and establishing ongoing organisational relationships.
- Possibilities for studentships, postgraduate research, exchanges, sabbaticals in Higher Education (including Technical and Further Education), government, business and civil society arenas.
- Relevant curriculum development in Higher Education (Including Technical and Further Education).

There will be more information on the visit in the next edition.

### Organisations visited

- The National ICT Australia (NICTA)
- The University of Technology, Sydney
- The Department of Broadband Communications and Digital Economy (DBCDE)
- The Australian Government Information Management Office (AGIMO)
- The Department of Innovation, Industry Research and Tertiary Education (DIISRTE)
- The Prime Minister and Cabinet DPMC
- Broadmeadow Global Learning Village Hume City Local Government
- Innovation and Business Skills Australia (IBSA)
- The Department of Business and Innovation
- Swinburne University
- The University of Tasmania (UTAS)
- The Tasmanian Department Premier and Cabinet
- The Department of Science, Information Technology, Innovation (DSITI) and business partners
- The Department of Education and Training (DET)
- Queensland University of Technology
- Auckland University of Technology: Creative Industries
- The Ministry of Economic Development (MED)
- The Wellington Institute of Technology (WIT)
- The Industrial Research Lab (IRL)



## Gaining an understanding of mobile applications development in South Africa

The e-Skills Institute (e-SI) is working to gain a better understanding of the current mobile applications development landscape in South Africa. This is being done through its Gauteng Knowledge Production and Coordination Hub which focuses on the national thematic area of creative industries. Multi-stakeholder collaborators include Cisco, RIM, Apple (Core Group), UNDP/UNCTAD, Kenya, Rwanda and the Queensland University of Technology (Australia).

**The e-SI is calling for organisations and individuals to participate in an online survey to assist with the research.** Whether you are a user, developer or trainer, please go to [www.get-apped.co.za](http://www.get-apped.co.za) and complete the survey. It will take 15 minutes of your time.

## FET sector: crucial for building the e-skills base in the country

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The South African government has stressed the importance of the role of the Further Education and Training (FET) sector. In August 2012, Minister Blade Nzimande, signed agreements with all FET college principals for the allocation of R2.5 billion from the National Skills Fund (NSF) for the expansion and capacity building of FET colleges.

In a recent statement, the Department of Higher Education and Training (DHET) noted: "These are some of the key interventions government has made to ensure that FET colleges are strengthened, the quality of teaching improved, adequate facilities and equipment is available and student support services are augmented."

FET colleges are set to play an increasingly important role in the new education landscape in South Africa, and numbers enrolled in the FET sector are expected to rise to four million in 2030.

The e-Skills Institute has been at the forefront of the drive to improve e-skills in the FET sector and has signed MOUs with some 27 FET colleges around the country to this end.

### The Professional Development Programme for FET College ICT lecturers

During the course of 2012, the Eastern Cape e-Skills Hub delivered the Professional Development Programme for FET College ICT lecturers to 17 lecturers. The lecturers were from four Eastern Cape FET Colleges:

- Buffalo City College
- East London East Cape Midlands College

- Uitenhage Ikhala FET College, Queenstown
- King Sabata Dalindyebo College, Mthatha.

This 20-credit programme on NQF Level 7, which has been accredited by Walter Sisulu University, equips the participants with the background, theory and principles of education which are critical for success in further education and training. It is also designed to be hands-on and firmly grounded in the ICT field.

The programme enables ICT lecturers in FET to engage critically with their teaching practices, continuously evaluating and developing these in order to strengthen the quality of teaching and learning.

Fourteen of the ICT lecturers have successfully completed assignments and have been evaluated on their teaching practice to qualify for the programme. It is hoped that the credits obtained will articulate into one of the new Higher Certificates that the DHET is planning for the pedagogical development of FET lecturers.

### Meeting industry needs and mass mobilisation

This intervention is a response to addressing the poor performance of FET students on the NC(V) IT and CS programmes. It is a direct acknowledgement of the importance of well-prepared ICT graduates from the FET colleges who can meet industry's needs.

Programmes such as this one – specifically aimed at training-the-trainer – are of great importance since they can directly contribute to the mass mobilisation of e-skilling the FET college community.

## e-SKPCH events

### National e-SKPCH events

#### December 2012

The e-SI is holding an 'e-skills for broadcast digital migration (DTT)' workshop aimed at developing a curriculum for DTT e-skill training to ensure courseware certification and career pathing. The outcomes of the workshop will be a consolidated curriculum which will be accredited through the relevant accreditation authority and to develop an action plan for the delivery of a curriculum for a successful digital migration. It will be held on 4 December 2012 at Casa Toscana in Pretoria.

### KZN e-SKPCH presentations

#### November 2012

Colin Thakur of the KZN e-Skills Hub gave the keynote address, 'Digital democracy: using e-voting to empower nations. Is it 'on' or 'off'?' at the ZAWWW 2012 14th Annual Conference. Hosted by Mangosuthu University of Technology, the national conference ran from the 7-9 November 2012. The overall aim was to provide an opportunity to describe and discuss novel Internet, Web and intranet applications and developments, and to exchange ideas on applying the Web for teaching and research purposes.

### Gauteng e-SKPCH events

#### April - December 2012

Regular presentation of e-skills courses for entrepreneurs and in the creative industries

#### July - December 2012

Incorporate Blackberry mobile apps development as part of a BCom (Honours) Informatics course and in Usability Testing

### KZN e-SKPCH events

#### November 2012

Monthly Stakeholders Forum on the fourth Wednesday

### WC e-SKPCH events

#### November 2012

The Western Cape e-Skills Hub is holding a colloquium on 'Demystifying e-Skills: Why should business, government, academia and civil society take e-skills seriously?'. Occurring on 23 November 2012 at UWC, it is aimed at unpacking the concept of e-skills, clarifying its relevance for the various sectors as well as exploring ways of how we can and should contribute towards recognising this basic human right.

## A multi-stakeholder approach to delivering on goals

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*Class photo of the 2012 students - The Post-Graduate Diploma in Software Development*

This diploma [Postgraduate Diploma in Software Development] reflects the e-Skills Summit 2012-endorsed model of aligning multi-stakeholder needs through a combination of approaches – top down, bottom up, inside out and outside in.

The Post-Graduate Diploma in Software Development is presented by the Western Cape e-Skills Hub and the Department of Information Systems, University of the Western Cape. It is done in consultation with the ICT industry in the Western Cape along with CITi1000.

This diploma reflects the e-Skills Summit 2012-endorsed model of aligning multi-stakeholder needs through a combination of approaches – top down, bottom up, inside out and outside in.

The aim of the programme is to re-skill unemployed or mis-employed graduates in non-IT disciplines as software developers. The redeployment of graduates into the ICT sector is a response to the needs and aptitudes of the graduates, reflecting a bottom-up approach. The aggregation of demand and supply – the outside-in approach – is seen in catering to stakeholder needs, such as business, to grow the pool of software developers within a sought-after skill base.

It also caters to South Africa's need for developers and the government policy direction of growing scarce ICT skills and increasing employment. This was referred to as the top-down approach at the e-Skills Summit 2012.

The innovative and responsive framework which takes non-IT graduates through an intensive course to provide them with scarce skills that then make them employable is very much thinking outside the box – defined as the inside-out approach.

### Re-skilling for the ICT sector

The Post-Graduate Diploma in Software Development began in March 2012. Prior to this, there was an intensive eight-hour selection workshop. Entry requirements consisted of a minimum of any non-IT related bachelor's degree and that the applicant had been unemployed for a

minimum of six months (or mis-employed) and was under 30 years of age.

Thirty-two students were accepted for the programme which consists of 14 weeks of immersive eight-hour days of instruction. Students sit at terminals and write code in much the same way as they would be expected to do by their future employers.

An individual software development project is part of the assessment framework. There is also a six-month internship at a software development company. Learners are taught mark-up languages, C language, object-oriented java programming, Web applications using the Java and .NET Web technologies (including relational databases and SQL), and mobile applications.

### Successful results

The pace, workload and pressure were commensurate with a commercial environment. As a result 15 students remained after the first 10 days of instruction. They completed the programme and successfully obtained internships.

Feedback from interning organisations (ranging from government through to private sector) has been very positive with numerous comments on the high standard, commitment and abilities of the students.



*Facilitators, Grant Hearn and Johan Breytenbach*

## Towards the development of e-entrepreneurs

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There are a number of approaches to developing entrepreneurs and entrepreneurial skills. International and national discussions and results offer up much for debate. However, what is not debatable is that entrepreneurs are critical for economic growth, particularly within a developmental context.

Due to its exploding growth and its critical nature within the knowledge economy, the ICT sector is ripe for e-entrepreneurial development. Johan Breytenbach, a PhD student at the Department of Informatics, University of Pretoria, and a researcher aligned to the Gauteng e-Skills Hub, has been conducting research wherein one of the components is the development of entrepreneurial potential within the ICT sector.

### Competition to drive ICT entrepreneurship

The Mobile Application Development (MAD) Challenge 2012, presented by the Gauteng e-Skills

Hub and the Department of Informatics at the University of Pretoria, was designed to introduce grade 10 and 11 secondary school learners to mobile technology as a stimulator of entrepreneurial potential and interest in ICT as a career and study choice.

The project was structured as a competition. Based on each learner's individual application form and academic performance, 50 promising learners from nine schools were invited to take part.

The competition-like nature of the MAD project, together with the high entry requirements, distinguished this project from other education-driven projects. This was not just another charity/development initiative – this was a real competition, with mobile development as challenging subject matter, against real peer group challengers from the schools next door.

The school learners were guided through the basics of BlackBerry Java application development during six two-hour tutorials on Friday afternoons. After six weeks of tutorials and another four weeks in which to apply their new knowledge, 29 learners completed the 2012 MAD Challenge. Sixteen applications were submitted – 13 pairs, and three individuals.

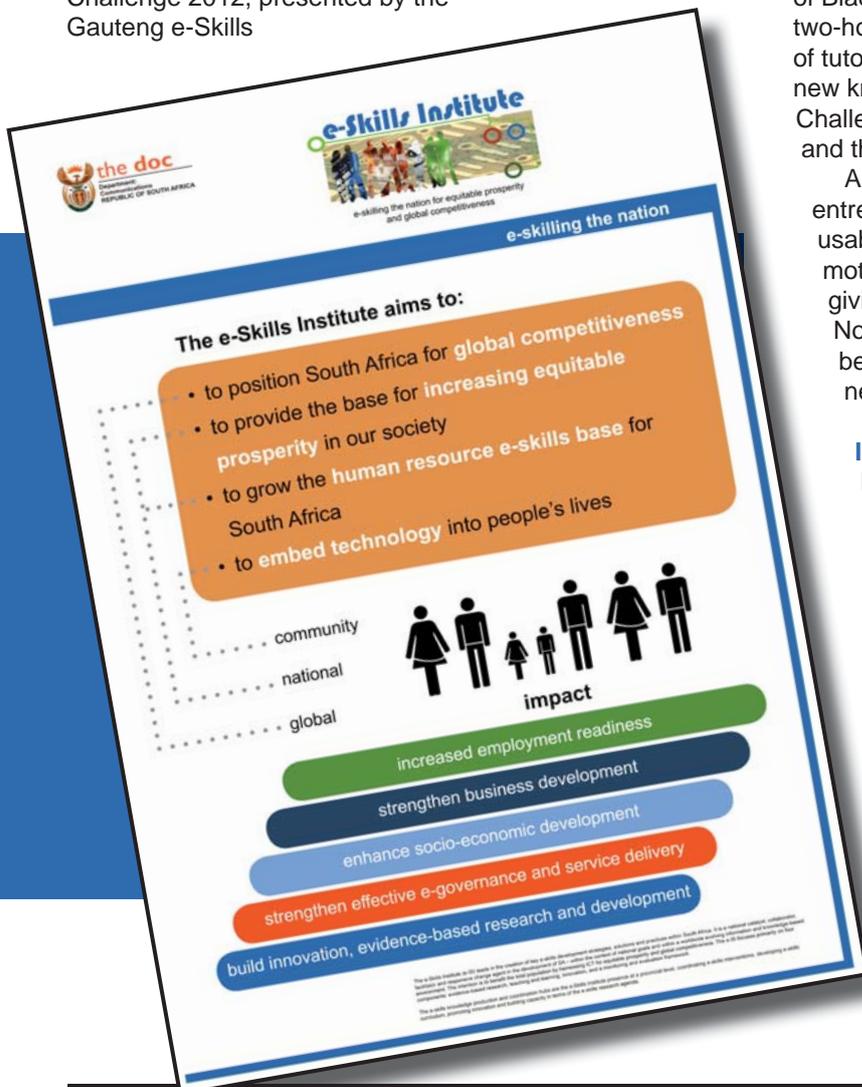
Applications were judged on the creativity and entrepreneurial content of the idea behind the app, usability, functionality, completeness, business value motivation, and programming skill. There was a prize-giving ceremony and winners announcements on 22 November 2012. (Details of the winning applications will be reported on in a later edition of the e-Skills Institute newsletter.)

### Initial results

Early findings from the data include the success of this type of project in:

- increasing ICT industry awareness at secondary school level
- increasing the number of students that will consider ICT as a tertiary study choice – in total seven learners changed their minds from studying non-IT related courses towards studying IT/IS/CS as a direct result of the course
- a surprisingly high entrepreneurial output (in the form of applications and good application ideas) in a technical/creative industry environment by a group of promising, yet practically untrained, secondary school learners

The research focus and initial findings indicate that it is becoming increasingly important to grow the South African ICT skills supply at secondary school level using methodologies such as the MAD 2012 concept.

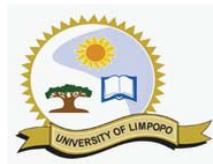


**For more information about the e-Skills Institute, contact:**

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

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, practices 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.