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e-Skills Institute

NeMisa NPC
National Electronic Media Institute of South Africa

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BlackBerry scholarship winner

innovative

responsive

developmental

enabler

collaborative

The Institute responsible for e-skills human capacity development 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 Institute focuses primarily on four components: research, teaching and learning, innovation and a monitoring and evaluation framework.

Opening up new job and learning opportunities in the global market

Building capabilities and leadership throughout society to work together to solve problems

The Institute responsible for e-skills human resource capacity development and BlackBerry have a Memorandum of Understanding (MoU). This has had numerous fruitful outcomes, from the creation of innovation application factories (aligned with certain provincial e-skills CoLabs) to strengthening the South African mobile applications development environment through targeting secondary school learners as a means to closing the scarce ICT skills gap.

Recent engagements between BlackBerry and the Institute have seen South Africa actively participating in the global BlackBerry scholarship programme.

This year, the programme received more than 500 applications from 65 countries with place for only 10 winners. Tafadzwa Makaza from Johannesburg, South Africa, was one of those winners. The Institute, through its international partners and MoUs, is opening up new job and learning opportunities targeted at the global knowledge economy.

BlackBerry scholarship programme

BlackBerry is developing the next generation of women in mobile computing and science, technology, engineering and maths (STEM) fields through its international BlackBerry scholarship programme.

The target is outstanding women entering their first year of study at an accredited college or university. Scholars are chosen based on their academic merit and their passion for entering the mobile computing industry.

Tafadzwa Makaza is the SA winner

Tafadzwa Makaza, the South African winner, will receive a full four-year university tuition to pursue her studies in the fields of STEM at Coventry University, UK.

The scholarship includes mentorship and professional opportunities. She will also be part of a mobile computing focused-community. Tafadzwa will be doing an Honours degree in Electrical and Electronic Engineering.

Scholarship to develop women

Currently, women are underrepresented in the fields of science and technology and much needs to be done – globally – to encourage more female engagement. It's about exposure to the opportunities available, emphasising female role models and creating an environment of mentoring and support.

Strategies need to be developed to engage young

> **"The Institute, through its international partners and MoUs, is opening up new job and learning opportunities targeted at the global knowledge economy."**

women throughout the process – from providing ICT information and skills during education and ensuring that

BlackBerry Scholarship winner from South Africa
"No one ever said that the STEM field is meant for men only. I believe women are very useful resources that are being underutilised. Women often complain that the STEM field environment is only suitable for men, but we are the ones responsible for creating an environment that is women friendly. We can only change the conditions by getting into the field and not just sitting back and complaining about the unfavourable conditions. If Marie Curie could do it, we also can. Someone has to rise up and begin where she ended. It is our responsibility to create our own STEM world. Women have to join the STEM field so that we can showcase our talents, knowledge, skills and capabilities", says Tafadzwa Makaza, BlackBerry scholarship winner and South African.

maths, science, technology and e-skills are part of the curriculum, to offering mentoring when the career choice is made.

The Institute - a national catalytic organisation

The results of the scholarship programme are an example of the role that the Institute plays as a national catalytic organisation in South Africa.

Another part of the equation is to ensure that e-skills and knowledge of ICT and its potential are embedded into the very psyche of the country. The Institute has been constantly driving the notion of e-astuteness, where it is not just about e-literacy and e-skills but having the know-how and skill to use technology for personal and community advantage.

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A mobile apps ecosystem for South Africa
Unite around a common pillar to fight poverty and inequality, and building capabilities

When you hear the word 'innovation' is your first thought that of an individual coming up with a groundbreaking idea? While innovation may start with a person or a brainstorm session between a group of people, it doesn't stop there. Innovation isn't just a good idea or creating something from those thoughts.

Innovation is part of a process
The World Bank's 'Innovation Policy: A guide for Developing Countries' (2010) defines innovation as "technologies or practices that are new to a given society" and that which is not disseminated and used is not an innovation. It's not an innovation unless the ideas go through a process to reach society, resulting in economic output or social impact.

Among other elements, for an innovation framework to function effectively there needs to be alignment, coordination, cooperation and coherence between government, business, education and civil society. There also needs to be monitoring and evaluation and a way of providing a feedback loop.

The mobile apps development environment
The Institute responsible for e-skills human resource capacity development has established a number of application innovation factories across the country, including the Eastern Cape, Gauteng and Western Cape. These serve as local platforms for innovation.

The innovation application factories support local application development and innovation for learning, effective service delivery and new job opportunities, with the focus on mobile and smart devices. They also focus on awareness raising and development collaboration. The space creates an entrepreneurial focal point and a physical environment to collaborate and innovate.

The Institute and its innovation application factories are also involved in developing an ecosystem for mobile apps. This will create a platform for developing local talent to fill South Africa's skills needs, including the fostering of entrepreneurial skills.

But what does it mean to create a mobile app ecosystem?

Teaching and learning
The ecosystem must include a transfer of skills and the promotion of opportunities within mobile apps development.

There have been a number of mobile app development events at the app factories. Teaching and transferring skills is part of the process of innovation, as is creating apps that

Students at the CramJam, part of the CodeJam mobile apps development competition run by the e-Inclusion and Social Innovation CoLab: Western Cape, based at the University of the Western Cape.

speak to the social challenges that face our country and continent. However, this is just the start of the journey.

Business incubation and mentoring
For mobile apps to be true innovation, they must ultimately impact on society as noted in the World Bank's definition. One of the steps is to take the mobile app and its inventor through a business incubation process, developing and refining what is needed for the mobile app to go to market.

The e-Inclusion and Social Innovation CoLab: Western Cape, based at the University of the Western Cape, is currently running CodeJam, a mobile apps development competition with a focus on social innovation. Part of the prizes for the best apps is that of business incubation and entrepreneurial training. However, developing the initial app also requires an understanding of business and mentorship.

As part of this process, a CramJam was held on 13 September 2013. The first stage involved refining ideas and included stakeholder engagement to shape the process. The second stage involved business training which looked at translating ideas into workable mobile apps that can be implemented. From here on mobile app concepts will be defined by teams, with three weeks to translate the idea into a prototype app. This process will include mentoring.

Aggregation and new knowledge creation
The BlackBerry Mobile Application Development (MAD) Challenge was recently held at the Creative New Media Industries CoLab: Gauteng, based at the University of Pretoria. In its second year, the focus is on introducing 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.

An important element of the initiative is the creation of a new knowledge base component (evidence-based research and aggregation) that provides feedback into the national e-skills environment. (See p7-8.)

Teaching and learning within a mobile app ecosystem
As part of teaching and learning, the Creative New Media Industries CoLab: Gauteng is investigating a new course (non degree) for first year students on mobile apps development, similar to the BlackBerry MAD challenge but platform independent.

e-Skilling for community development workers
Active citizenry, creating an inclusive economy and building capabilities

e-Skills are an essential part of every South African's life, traversing all the layers of society. This reflects the cross-cutting nature of ICT. In today's world, ICT is integrated into the way we live our lives and underpins the social fabric.

For this very reason, it is necessary to create an ecosystem and a context that supports the transfer of e-skills.

Tackling the transfer with a 'single' perspective will not result in significant impact. It is not only about streamlining efforts through a multi-stakeholder collaborative network but ensuring that the efforts and impacts are tackled within an ecosystem that supports the embedding of e-skills.

Creating the ecosystem
A broader ecosystem is needed to allow South Africans to become e-astute and that will create an environment for e-social astuteness within communities.

Global examples have shown that success relies on an ecosystem that includes networks, services, users and infrastructure. 'Supply' is not enough. The 'demand' side of the equation must be catered for as well.

Stimulating demand is, in part, dependent on awareness and attractiveness of the 'product'. For citizens to be engaged in the e-skills universe, they need to know what is available and what it can do for them.

The community development worker
The community development worker (CDW) plays a critical role in South Africa's developmental agenda. Among other responsibilities, the CDW provides information

> **The community development worker (CDW) plays a critical role in South Africa's developmental agenda... To strengthen the CDW role, it is essential to e-skill them.**

to communities, collects information and facilitates the implementation and coordination of government programmes.

These workers provide an important link in the strengthening of integration, coordination, community engagement and participation in building an inclusive economy. It is about getting the right information to the right people, at the right level, and in the right context.

Community development places people at the centre of the development process. It emphasises people's participation, fosters self-reliance and provides the context for `bottom-up` problem solving.

It is about building stronger and more resilient communities where individuals are empowered and where there is skills transfer that allows people to effect change in their own communities.

To strengthen the CDW role, it is essential to e-skill them.

e-Skilling Community Development Workers workshop
The Institute responsible for e-skills human resource capacity development, in collaboration with Department of Public Service Administration, Local Government SETA and the e-Enablement of Effective Service Delivery CoLab: KwaZulu-Natal located at the Durban University of Technology, met to initiate a pilot programme aimed at capacitating CDWs for the information society and new knowledge economy.(END)

What is a community development worker?
As early as 2003, community development workers (CDWs) were identified by national government as a necessary part of public service. People within lower socio-economic situations are often unable to access the full potential of government programmes. One of the reasons for this gap is access to information about services.

CDWs are special types of public servant who undergo training to enable them to enter communities and households, engage with citizens and determine what services are needed, and to ensure that these services are made available.

CDWs link communities with government services and programmes. For example, CDWs assist citizens by helping them to access services such as health, welfare, housing, agriculture, economic activity, education and training, and employment opportunities.

CDWs also usually live in the communities where they work.

The CDW is an international concept and has been operating in various countries, including the UK and Australia. It is part of a participatory people-centred approach to development.

We have come a long way – celebrating 20 years of freedom
On 27 April 2014, South Africa celebrates the 20 year anniversary of the country's first democratic elections which included South Africans of all races. Initiatives will include events, celebrations and reports from all sectors on how far we have come as a country since 1994.

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Multi-stakeholder engagement for impact

Unite around a common pillar to fight poverty and inequality, leadership throughout society to work together to solve problems, and a capable developmental state

For South Africa's e-skilling initiatives to work effectively, it is important to leverage all the resources that are available. The Institute's multi-stakeholder collaborative network draws the best experiences from education, national, provincial and local government, civil society, the private sector and global development partners.

This collaboration ensures aligned engagement for increased e-skills capacity development to support the goals of the National Development Plan (NDP). The NDP's primary aim is to eliminate poverty and reduce inequality by 2030.

The *de facto* methodology

The multi-stakeholder approach is becoming the *de facto* methodology for tackling developmental challenges. Along with other international institutions, the World Bank Institute (WBI) actively promotes multi-stakeholder collaborative action (http://wbi.worldbank.org/wbi/Data/wbi/wbicms/files/drupal-acquia/wbi/multistakeholder_insert_fy12.pdf).

WBI notes that "[d]espite decades of technical and financial assistance, development remains a major challenge for many countries. Most development efforts have focused on finding technical solutions to problems, starting from a diagnosis of what's wrong, to recommending global good practices, to helping apply those good practices locally. The uneven results of this approach suggest that successful development requires more than technical solutions. It requires getting individuals, groups, and organisations to work together to achieve a complex set of objectives".
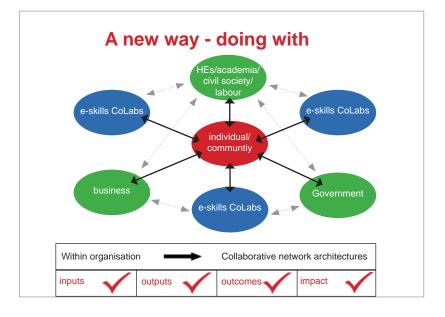
Change of mindset

The multi-stakeholder collaborative process is relatively new but is now being seen across nations, industries, sectors and projects as the appropriate methodology to use to ensure impact. However, it does require a change of mindset.

It is a new way of doing things. It requires new thinking and a change in processes, communication and alignment, among other things. Stakeholders need to have a broader vision and to incorporate this into their individual actions and objectives.

Representatives from KZN SALGA and the e-Enablement of Effective Service Delivery CoLab: KZN

A new way - doing with

| Within organisation | ➡ | Collaborative network architectures |

| inputs ✓ | outputs ✓ | outcomes ✓ | impact ✓ |

The Institute multi-stakeholder engagement

The Institute continues to drive multi-stakeholder engagement through a new way of 'doing with' (collaboration) at a national and provincial level to ensure that South Africa's e-readiness rankings improve. Engagements include seminars, exhibitions, conferences and one-on-one meetings for better alignment of e-skills activities at a national and provincial level for better impact.

The e-Education ICT Seminar

On 3 September 2013, the e-Enablement of Effective Service Delivery CoLab: KwaZulu-Natal (KZN) hosted the e-Education ICT Seminar at its Durban University of Technology venue.

This is an annual event run by the KZN Department of Education and hosted by the KZN e-Skills CoLab. The common mandate is to enrich the conversation on ICT-enhanced e-learning and training in KZN. This is achieved by providing the necessary thought leadership and shaping policy and practice across the province.

Hosted in both English and IsiZulu, the event is billed as KZN's largest gathering of e-learning and ICT-supported education and training professionals. Over 200 decision makers and practitioners from the education, business and government sectors made use of this opportunity for learning, knowledge exchange and networking to explore the latest innovations and issues in the fields of technology and e-education. This aligns with the national goals of strengthening the skills and human resource base.

The KZN CoLab made a presentation on how it can assist the educators and initiated interaction with the Director General of the KZN provincial Department of Education.

Municipality stakeholders

During the month of September, the e-Enablement of

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[continued] **Multi-stakeholder engagement for impact**

Effective Service Delivery CoLab: KwaZulu-Natal hosted a workshop of the KwaZulu-Natal South African Local Government Association (SALGA) whose focus is on ICT.

From the 61 municipalities that were invited, 50 representatives from 27 municipalities attended the workshop. Other attendees were from the provincial Department of Economic Development and Tourism and the Office of the Premier.

Municipalities are a key vehicle for the delivery of services to the public. Without functional municipalities, national government's policies and priorities will not be effectively implemented in each community. Targeted use of key communication systems plays an important role in the delivery of services.

The Institute is on a constant quest for 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 intention of the SALGA workshop was to explain SALGA's ICT Governance Framework to municipalities, and to map out a way to respond to challenges faced by municipalities in ICT.

At the workshop, the e-Enablement of Effective Service Delivery CoLab: KwaZulu-Natal introduced the CoLab activities and its role in the province. By partnering with SALGA, the CoLab can help municipalities move towards e-enabling effective delivery of services.

Ekurhuleni exhibition
On 7 September 2013, the Institute participated in an exhibition held in the township of Daveyton in the Ekurhuleni Metropolitan Municipality of Gauteng. This was jointly facilitated by the office of the Deputy Minister, Department of Communications (DoC) and the Department of Public Enterprises (DPE). The aim was to showcase the e-skilling opportunities that enable people to function in the ICT sector.

Other participants included Sentech, SAPO, Telkom, USAASA, ICASA and SABC.

The Institute used this platform to emphasise its

What is the 14th IFIP TC13?
This conference took place from 2-6 September 2013 in Cape Town. Its theme was 'Designing for Diversity', recognising the interdisciplinary, multidisciplinary and intercultural spirit of human-computer interaction (HCI) research.

The conference was jointly organised by the Nelson Mandela Metropolitan University, CSIR Meraka Institute and the University of Cape Town. Its aim is to develop the science and technology of HCI by:
- Encouraging empirical research
- Promoting the use of knowledge and methods from the human sciences in design and evaluation of computer systems
- Promoting better understanding of the relationship between formal design methods and system usability and acceptability
- Developing guidelines, models and methods by which designers may provide better human-oriented computer systems
- Cooperating with other groups, inside and outside IFIP, to promote user-orientation and humanisation in system design

integrated environment – that the three entities have combined (e-SI, NEMISA and ISSA) – as well as showcase the work of its CoLabs. Furthermore, it was emphasised that the Institute facilitates e-skills training courses in collaboration with partners. The event helped to strengthen the profile of the Institute.

IFIP TC13 Conference
Representatives from the Institute participated in the 14th International Federation for Information Processing (IFIP) TC13 Conference on Human Computer Interaction.

A representative from the e-Enablement of Effective Service Delivery CoLab: KwaZulu-Natal presented a paper about a crop planning system as part of the urban agriculture workshop. (END)

NDP Priority Areas supported by NeSPA 2013

Pillar 1: Unite around a common pillar to fight poverty and inequality

Pillar 2: Active citizenry

Pillar 3: Inclusive economy

Pillar 4: Build capabilities

Pillar 5: A capable developmental state

Pillar 6: Leadership throughout society to work together to solve problems

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Multi-stakeholder research architecture for impact – creating a knowledge base for a hyper connected world

Building capabilities, unite around a common pillar to fight poverty and inequality, active citizenry, an inclusive economy, a capable developmental state, and leadership throughout society to solve problems

Research is evolving. If research is to address the National Development Plan (NDP) 2030 and South Africa's dramatic drop in global e-readiness rankings (70th in 2013 - WEF & Insead Global IT Report 2013) amid rapidly emerging technologies, a fundamental shift

"If research is evolving perhaps there is a need to redefine naming conventions in a way that reflects the change. Research is not an isolated endeavour but part of a process that has a defined outcome."

is needed. This includes a new approach, as well as more funding into research for e-skills.

There are various challenges with the old approaches

The ICT for Rural Development CoLab: Eastern Cape hosted a Research Interest Group meeting with various provincial stakeholders.

ResNeS objectives
ResNeS' main objectives are:
- Thought leadership
- Research classification
- Research working groups
- Develop integrated approaches for policy development
- Research and evaluation of e-skills impacts

in South Africa, and to face the needs of government, civil society, business and education in addressing societal challenges, these gaps must be filled.

Closing the gaps
So where are the gaps? There are a number of issues and these are predominantly around aligning research output with societal impact and integrating government, business, education and civil society through formalised pathways within a trans-disciplinary framework.

The rapidly-emerging confluence of need, interest and applicability across government, business, education and civil society requires a new way of thinking and a collaborative research architecture.

An architecture that links to impact
The national Research Network for e-Skills (ResNeS) is just such an architecture, promoting e-skills research and impacting on the NDP. It's a platform for multi-stakeholder partner research collaborations and it focuses on redefining research (new knowledge) to support the National e-Skills Plan of Action. (The e-skills plan of action is aimed at e-skilling South Africa for equitable prosperity and global competitiveness.)

It is a new approach to research, policy development and relevance in developing employment in the information society and knowledge-based economies.

ResNeS is creating a network of researchers across the higher education sector, the private sector, government, civil society and other role players to provide the research-based essential intelligence needed for e-skilling South Africa. The role of ReSNeS is to lead in the development of suitable collaborative architectures for research that is demonstrably and visibly linked to impact.

Redefining research
If research is evolving perhaps there is a need

[continued] Multi-stakeholder research architecture for impact – creating a knowledge base for a hyper connected world

to redefine naming conventions in a way that reflects the change. Research is not an isolated endeavour but part of a process that has a defined outcome. Research is about creating a knowledge base for a reason – and in the case of the e-skills agenda, that reason is to drive South Africa into the hyper connected universe to support equitable prosperity and global competitiveness.

Strengthening the e-skills knowledge creation architecture in the Eastern Cape

On 23 August 2013, the ICT for Rural Development CoLab: Eastern Cape hosted a Research Interest Group meeting with various stakeholders from the province. It was an information session with the focus on extending the e-skills research agenda within academic institutions and across all stakeholders. This includes identifying a list of topics for post-graduate students.

The CoLab, as part of the e-skills research network, enables stakeholder networks (at local, national and international levels) to produce research that will contribute to the Institute's goal to be a key catalyst in the development of South Africa within the information and knowledge-based environment.

The role of the CoLab within the multi-stakeholder environment is to promote awareness of such activities, to promote collaboration and aggregation, and to further stimulate and initiate research within this network.

It was attended by representatives from Walter Sisulu University, Nelson Mandela Metropolitan University, Rhodes University and University of Fort Hare.

Other attendees were from the Office of the Premier, Eastern Cape Socio Economic Consultative Council (ECSECC), Eastern Cape Development Corporation (ECDC), Eastern Cape IT Initiative (ECITI) and Buffalo City and King Sabatha FET Colleges.

In 2012, the research group submitted two proposals about the establishment of smart community knowledge centres in rural areas and on promoting the use of ICT in pedagogy within schools, FET and agricultural colleges. Both of these are awaiting final approval.

The meeting's theme of sharing information included a presentation on a collaborative research project by a lecturer and PhD student from the University of Fort Hare. The project looks at using a voice-driven, mobile phone-based, e-commerce system in the Aloe picking industry.

> **"The key findings suggest that younger SMME owners are more willing to innovate with ICTs yet lack the resources. The older SMME owners invest in ICT but struggle to make use of it. The research contributes to practice in suggesting how training in ICT for SMME owners... needs to include these generational differences."**

New policy interventions to support emerging cyberpreneurs

In August 2013, a representative from the Creative and New Media Industries CoLab; Gauteng and his colleague at the University of Pretoria delivered a paper at the 19th Americas Conference on Information Systems (AMCIS) in Chicago, Illinois, USA. Below is the abstract for this research paper.

ABSTRACT: 'Exploring the Role of ICT in the transition from a Small Business owner to an Entrepreneur: A Dynamic Capabilities Perspective in a Developing Context'

One of the preferred approaches to solving developing country challenges such as unemployment, poverty and redundant youth is through entrepreneurship and the use of ICT. Yet integrating ICT in business often presents another unnecessary challenge for Small Medium and Micro Enterprises (SMMEs) in developing countries.

In this paper we adopt a qualitative approach using the dynamic capabilities framework (DCF) to explore the role of ICT in transitioning SMME owners into entrepreneurs.

The key findings suggest that younger SMME owners are more willing to innovate with ICTs yet lack the resources. The older SMME owners invest in ICT but struggle to make use of it.

The research contributes to practice in suggesting how training in ICT for SMME owners, as part of stirring an entrepreneurial culture in DCs, needs to include these generational differences. For theory, the research shows that the DCF can sufficiently be used to understand growth in SMMEs in developing countries.

[continued] Multi-stakeholder research architecture for impact – creating a knowledge base for a hyper connected world

Mobile app development impact on secondary school learners

One ICT labour supply chain gap is secondary school learners' lack of understanding of ICT as a career while deciding what to study or pursue as a career (Breytenbach & De Villiers, 2012; Calitz, 2011; Granger, Dick, Jacobson, & Van Slyke, 2007).

> **"[S]everal secondary school learners are willing to change or consider changing career paths when provided with accurate ICT industry information and practical exposure to the technical and non-technical skill sets required in a scarce skill industry sector."**

In South Africa, a secondary school learner must choose his or her preferred secondary school subjects after completing two out of five years of secondary school – reaching this career path choice at the age of 14 or 15, when ICT industry knowledge is usually limited.

The BlackBerry Mobile Application Development (MAD) Challenge was aimed at secondary school learners aged 16 and older, learners who had already made their final subject choices.

The goal of the MAD Challenge was to see how school learners who have indicated an interest in ICT by choosing IT or CAT (Computer Application Technology) as a secondary school subject compared with learners who did not choose IT or CAT as a subject. This comparison was made when participating in a mobile application development short course with a strong entrepreneurial focus (conceptualising and writing applications that could potentially make money).

Learners were measured before and after their participation in the course regarding their interest in ICT as a possible career choice, their primary motivations when making study and career choices, and their basic understanding of the ICT industry.

The MAD project was set up with the underlying hypothesis that short courses of this nature could potentially stimulate growth in the group of secondary school learners who choose to become part of the ICT industry by giving learners a feel for the new and exciting entrepreneurial opportunities and the job satisfaction to be found in ICT. A summary of basic measures for the 2012 and 2013 MAD project groups are presented in Table 1 and Table 2 below.

The 2013 results confirm the extraordinary 2012 results – several secondary school learners are willing to change or consider changing career paths when provided with accurate ICT industry information and practical exposure to the technical and non-technical skill sets required in a scarce skill industry sector.

The results suggest that if more short courses and competitions, like the MAD Challenge, are introduced into secondary schools then South Africa will produce more students like the BlackBerry scholarship winner from South Africa, Tafadzwa Makaza. (See p1.) ᴇɴᴅ

Secondary school winners from the BlackBerry MAD Challenge run by the Creative New Media Industries CoLab: Gauteng.

Table 1: Summary – MAD project 2012

Number of learners accepted for course	60
Number of learners who completed the course	30
Entrepreneurial ideas/creative applications generated	16
Percentage of course-finishing learners who indicated an interest in ICT jobs prior to course	**18/30 = 60%**
Percentage of course-finishing learners who indicated an interest in ICT jobs after the course	**25/30 = 83%**
Number of non-ICT-studying learners indicating ICT as a career preference after the course	3
Number of learners who changed their career choice to ICT as a direct result of the course	7

Table 2 Summary – MAD project 2013

Number of learners accepted for course	54
Number of learners who completed the course	22
Entrepreneurial ideas/creative applications generated	14
Percentage of course-finishing learners who indicated an interest in ICT jobs prior to course	**14/22 = 63%**
Percentage of course-finishing learners who indicated an interest in ICT jobs after the course	**18/22 = 81%**
Number of non-ICT-studying learners indicating ICT as a career preference after the course	4
Number of learners who changed their career choice to ICT as a direct result of the course	4

Taxonomy for e-skills

An e-skills taxonomy is more than just definitions. The e-skills agenda requires a shift in thinking with outcomes such as changes in policy. The terms used are part of creating the environment for this shift. Following are definitions to some of the words that form part of the e-skills taxonomy.

e-Astuteness	The capacity to continuously appropriate the technology into personal work, education, business, social and family contexts for both personal and collective benefit.
	
	  e-Astuteness is defined as a knowledgeable capacity, based on personal and interpersonal skills, that involves:
	• Understanding people and situations
	• Building alignment and alliances
	• An acute understanding of strategic direction
	• Applying strategic behaviour
	  e-Astuteness allows individuals to take personal advantage of ICT through the appropriate e-skills in social or economic situations. (Building social connections is an example of a social situation and obtaining a job or starting a business is an example of an economic situation.)
	  e-Astuteness does not necessarily depend on formal education or high levels of literacy.

e-Literacy	e-Literacy is the ability of individuals to use digital tools and facilities to perform tasks, to solve problems, to communicate, to manage information, to collaborate, to create and share content and to build knowledge, in all areas of everyday life and for work.
e-Skills	The ability to use and develop ICTs within the context of an emerging South African information society and global knowledge economy, and associated competencies that enable individuals to actively participate in a world in which ICT is a requirement for advancement in government, business, education and society in general.
e-Social astuteness	e-Social Astuteness is defined as the use of ICT and e-skills for more astute ways of people interacting with others, which include: • Social interactions • A level of awareness and understanding of diverse social situations • The various alternatives open to them for response e-Astuteness focuses on individual benefit whereas e-social astuteness focuses on interacting with others for group benefit.

e-Skills stakeholder meeting
The Creative New Media Industries CoLab: Gauteng will be holding a stakeholder meeting on 31 October 2013. Interested stakeholders can email Carina.DeVilliers@up.ac.za.

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Developing South Africa's e-skills human resource capacity - a focus on ICT for Rural Development, Eastern Cape

Building capabilities, unite around a common pillar to fight poverty and inequality, active citizenry, an inclusive economy, a capable developmental state, and leadership throughout society to solve problems

The Institute responsible for e-skills human resource capacity development integrates all e-skills activities for greater impact against the National Development Plan of South Africa.

It is a national catalyst, facilitator and responsive change agent in the development of the country's human resource capacity for the optimum use of ICTs in developing and growing an inclusive economy.

The Institute has established provincial e-skills CoLabs in collaboration with local universities across the country. These operate as the Institute's presence in the provinces.

The ICT for Rural Development CoLab: Eastern Cape

The ICT for Rural Development CoLab: Eastern Cape is hosted by Walter Sisulu University. It has established a platform to engage stakeholders across government, business, civil society and organised labour to address the e-skills challenge of the province and against a national thematic area, ICT for Rural Development.

Key organisations involved include:
- The Eastern Cape Department of Rural Development
- Eastern Cape Socio Economic Consultative Council (ECSECC)
- The Eastern Cape Development Corporation
- The Amathole Economic Development Agency of the Amathole District Municipality
- Buffalo City Municipality
- State Information Technology Agency (SITA)
- Buffalo City and Lovedale FET Colleges

- Nelson Mandela Metropolitan University
- University of Fort Hare
- Rhodes University
- ITEC
- Eastern Cape Information Technology Initiative (ECITI)
- Eskom
- Telkom
- Siyakhula Living Lab

The national e-skills action plan has also been endorsed by the province's Human Resource Development Council.

Teaching and learning gaps in the Eastern Cape

The provincial e-skills environmental scan conducted by the Institute through its provincial CoLab also identified many teaching and learning gaps to support the e-skills national plan of action and for new job opportunities (such as broadband and broadcasting digital migration) within ICT for rural development.

These include but are not limited to:
- e-literacy and e-social astuteness
- mobile apps development
- ICT for Educators (ICT in pedagogy)
- FET ICT Professional Development
- Business and System Analysts
- Data analysts
- Journalism
- Content creators/developers
- Cyberpreneurship (SMME)

Coordination and programme alignment

The Institute through its CoLab is also serving as a member on the Eastern Cape SIP 15 task team.

The province hosts one of the three mobile apps development factories in the country. The mobile apps development factory, spearheaded by Rhodes University, focuses on promoting local apps development to support the needs of citizens.

In collaboration with its stakeholders, the Institute through its CoLab is in the process of elevating existing e-centres to create innovative spaces for youth, women and communities at large that will promote and enable innovation, develop cyberpreneurship, enable effective service delivery and promote a culture of life-long learning.

Three such centres have been identified for 2013 with the aim of up-scaling two others over a period of five years. These centres will be connected to the national e-skills virtual cloud that will further offer new learning opportunities directed at new jobs for those residing in rural and underserved areas.

The Institute and its CoLabs are committed to the development of e-skills for South Africa because access to technology and the knowledge to use ICT effectively equals leadership, inclusive growth and equity.

CoLab thematic areas

Western Cape CoLab: e-Inclusion and Social Innovation

KZN CoLab: e-Enablement of Effective Service Delivery

Eastern Cape CoLab: ICT for Rural Development

Gauteng CoLab: Creative New Media Industries

Limpopo CoLab: Connected Health

Southern Gauteng/Northern Cape CoLab: e-Literacy and e-Business (knowledge economy and e-social astuteness)

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neMisa NPC
National Electronic Media Institute of South Africa

Partners in the Institute's multi-stakeholder collaboration

education

WSU
Walter Sisulu University

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CISCO

Telkom

CORE GROUP

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Neotel

global developmental partners

UNDP

ITU

Kenya

Rwanda

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

The Institute responsible for e-skills human capacity development 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 Institute focuses primarily on four components: research, teaching and learning, innovation and a monitoring and evaluation framework.