

April 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, 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.

Advancing the South African national e-skills agenda: e-skills multi-stakeholder international visitation to Ireland and the United Kingdom

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From 16th to 20th April 2012, an e-skills multi-stakeholder partnership visit to Ireland and the United Kingdom was undertaken as part of the national research agenda for e-skills and to garner methodologies and strategies to support South Africa's national e-skills plan for impact.

Research shapes development

The visitation highlighted the vital importance that research and evaluation has played in underpinning successful development efforts across government, business, civil society and education agencies. While research and evaluation is useful in measuring output and outcomes, it also shaped and coordinated efforts and assisted in identifying gaps where new approaches were needed.

It became evident that there is a need for the establishment of a national enabling research framework, established at highest level to maximise the cutting edge e-skills research that is required. Currently the national research network for e-skills (ReSNES) is being built.

Integrated approaches

One of the significant and consistent messages was the importance of an integrated approach across business, government and education: one that unified efforts in an enabling environment, and where identified gaps were filled through existing capacity within the various stakeholders and, when these were not available, that effort was directed towards establishing collaborative approaches.

Of further note, was that the integration needed to be clearly visible and that the enabling environment must be trusted, collaborative, focused and responsive. The development of this type of integrated approach adopted by the e-Skills Institute (e-SI) is seen as fundamental in terms of the success factors regarding application in South Africa.

Impact of social media

The impact of social media is so intrinsic in the current online environment that the basic attributes of social media are now embedded into the core of teaching and learning approaches within the UK and Ireland. This offers great potential for South Africa because of the increasing convergence and mobility of new ICT approaches.

Mobile platforms

The prolific use of cell phones in South Africa provides a large scope of opportunity when delivering content. Globally, mobile platforms have become increasingly important in the delivery of learning where tablets in education are the clear way forward and are being embraced on a global scale.

Targeting specific e-skills focus areas

The visit targeted specific areas within the e-skills agenda, namely:

- Curricula development and a clear e-skills curriculum framework (to support the development of a national e-skills curriculum framework)
- Partnerships to inform ways in which collaborative funding mechanisms (from education, industry, government and civil society) can be evolved to support e-skills capacity development
- Broadband infrastructure and technology initiatives that support e-skills capacity development and the involvement of the ICT sector
- Performance improvement to develop a national framework to monitor and assess the impact of e-skills interventions in the country, as well as focused research into the new e-skills required.



Delegates workshopping during the international visitation to Ireland and the UK

Multi-stakeholder collaborative network model

The e-SI is able to achieve its aims through building a multi-stakeholder collaborative network:

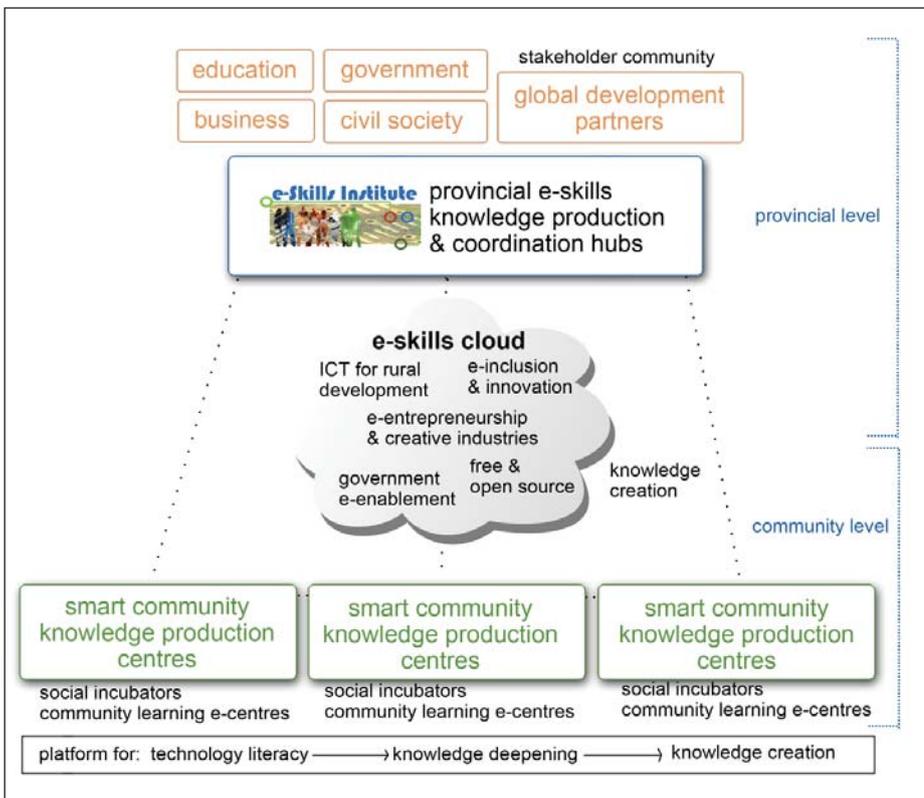
- This allows for the massification of e-skills delivery at all levels in society – thought leaders, ICT practitioners, ICT users and the ICT illiterate.
- To deliver an integrated approach, the multi-stakeholder collaborative network cuts across government, business, education and civil society, including labour and global development partners and agencies.
- The multi-stakeholder collaborative network provides a local architecture that allows for independent collaboration across levels and discipline focus in government and education.
- Within this network, the e-SI has created a global development contributory framework to support e-skills.

Towards the creation of a national e-skills virtual network

As part of its success factors for 2012, the e-Skills Institute (e-SI) and its collaborative partners have identified the need for the establishment of a national virtual e-skills cloud for knowledge production and transfer.

This will be the first of its kind in South Africa and a proof of concept virtual network is currently being set up in the Strand, Cape Town. It is an initial investigation test to prove the minimum technology requirements needed for sustainable e-skilling the nation at a community level.

Architecture for knowledge creation



The national e-skills cloud model

The provincial e-skills knowledge production and coordination hubs (e-SKPCHs) will contribute to the national e-skills cloud, with further contributions from multi-stakeholder partners.

Citizens, employees and entrepreneurs will then be able to acquire the e-skills needed to access, collaborate, develop and communicate digitally-mediated content, applications, training and services and thus improve their livelihoods and those of their communities, businesses and effective government services.

Accessing the cloud

A network of smart community knowledge production centres will be set up around the country to provide access to the e-skills cloud. These centres are being developed to encompass far more than just internet access points.

The model for the smart community knowledge production centres is based on the social incubator and the community learning centre model of Tec de Monterrey in Mexico.

The proposed smart community knowledge production centres will:

- support whole community development and offer targeted training interventions (blended learning)
- build and support entrepreneurs across all sectors
- allow for action-based research for policy development
 - allow for local relevant innovation across all sectors

A key strategy is to target rural and peri-urban areas for smart community knowledge production centres deployment as part of the national Rural Development Strategy of the country.

The proof of concept

To test for the minimum technology requirements needed to support the e-skills cloud, a national virtual network has been created to test the network. It incorporates the data centre, central office, provincial e-SKPCHs and the smart community knowledge production centres.

Based on its multi-stakeholder collaborative approach, the e-SI of the Department of Communications is working with Cisco, Telkom and USAASA. The architecture of the network is designed to enable collaboration and innovation through a reliable and fully redundant national backbone infrastructure.

This virtual network for e-skills in the country will serve as a platform for rolling out the required network elements. Various scenarios will be

simulated, including connectivity, video conferencing, instant messaging, and network security. The evidence collected through the simulations will be used to inform policy-making processes to continue to improve on the e-skills agenda within the country.

The Strand building where the Proof of Concept for the national e-skills network is being built



e-Skills for broadcast digital migration: identifying skills gaps within a developmental context

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Stakeholders were invited to the 'e-Skills for Broadcast Digital Migration' workshop aimed at addressing the e-skills capacity development needs for a successful national Broadcast Digital Migration (BDM) policy programme

The workshop was held on 12 April 2012 at the Gauteng e-Skills Knowledge Production and Coordination Hub (e-SKPCH) based at the University of Pretoria.

Background to the BDM

The Broadcasting Digital Migration (BDM) policy of the country sets the parameters for migrating broadcasting from analogue to digital. The result will offer more frequencies (which have become limited).

The policy is aimed at meeting the ITU resolution that all countries in Region 1 complete their migration by June 2015. (South Africa falls within Region 1.)

The BDM policy is underpinned by a strong collaboration between government and industry, with the intention of building a people-centred and inclusive society for South Africa. Given this developmental approach, the e-Skills Institute (e-SI) of the Department of Communications (DoC) has been mandated to address the e-skills capacity needs to support this national target.

Employment potential within the value chain

Skills and job creation potential exists within the BDM programme. The BDM value chain encompasses, in part: manufacturing, governance and testing, logistics and distribution, installation, support services such as warranty underwriting and call centres, communication and marketing, and content.

Each element of the value chain incorporates potential jobs. For example:

- Additional jobs within the manufacturing sector to manufacture the 6.4 million other set top boxes needed for the country's households (excluding the subsidised set top boxes). The DoC is subsidising around 5 million of the set top boxes, targeted at impoverished households. The intention is to have important government documentation available for download from these set top boxes. (The DoC set top boxes will not have a return path. However, this does not exclude a return path on the set top boxes that will be manufactured for the rest of the country.)
- Aid with distribution logistics such as truck and driver rental.
- The initial installation is estimated at providing around 4000 jobs.

- Employment of call centre agents to assist with set top box use is estimated at around 5000 people. There are also employment opportunities for training the call centre agents.
- Communication and marketing opportunities around the BDM

In terms of sustainable job creation, the managing of the set top box warranties will be an ongoing process. However, the largest employment creation opportunity is within content delivery. BDM will offer 40 new channels including TV and radio and content will become a priority.

Contextualising the workshop

Mymoena Sharif of the e-Skills Institute (e-SI), Department of Communications, gave the welcome address and positioned the purpose of the workshop within the context of the national Broadcast Digital Migration programme of the Department.

Mr Roy Kruger, technical advisor to the Minister of Communications, provided an overview of policy priorities, with the focus on job creation and skills requisites. He noted that, currently, there is 60% roll-out of the network. A Request For Information (RFI) regarding the set top boxes has also been put in motion. (To receive a digital signal, a set top box is required for the signal conversion.)

Dr Harold Wesso, Deputy Director General at the Department of Communications, acting CEO of the e-SI (of the Department of Communications) and acting CEO of the National Electronic Media Institute of South Africa (NEMISA), spoke on 'Understanding the value chain – new skills required for the digital economy'.

Hossana Twinomurinzi, Acting Director of the Gauteng (e-SKPCH) and Senior Lecturer at the University of Pretoria, also addressed the DTT value chain, looking at the skills demand required for SA's successful adoption to digital platforms and the impact of the e-SI within the value chain.

With Australia academia assisting in the kickstarting of the creative industry space in South Africa, Dr John Banks from Queensland University of Technology skyped in to discuss the development of creative industries.

The outcome

Discussions centred around the core skills required, how to build the DTT from a development perspective, how stakeholders can contribute and risk analysis. The outcome of the workshop is a proposed action plan. The raw data accumulated from the workshop has been circulated among attendees for further feedback. Watch this space for skills capacity for DTT.

Delegates and speakers at the 'e-Skills for Broadcast Digital Migration' workshop



International input into uplifting South Africa's research within e-skills and creative industries

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Knowledge transfer between institutions and countries is an enabler for building and strengthening the skills and human resource base in South Africa. This has become critical within creative industries, which has been identified as a prime sector for employment growth.

The ARC Centre of Excellence for Creative Industries and Innovation winter school

In 2012, the Australian Research Council (ARC) Centre of Excellence for Creative Industries and Innovation (CCI) is hosting a winter school for selected doctoral students and early career researchers. Riana Steyn, from the Gauteng e-skills knowledge production and coordination hub (e-SKPCH) and a student at the University of Pretoria, has been selected as one of just over 30 applicants from a pool of 66 applicants from 16 countries. Of note is that the Gauteng e-SKPCH focuses on developing creative industries within the e-skills context in South Africa.



Riana Steyn

The e-Skills Institute connection

The ARC forms part of the Eidos Institute research network of Australia. The e-Skills Institute and Eidos have a signed Memorandum of Understanding that aims to build collaborative research capacity within South Africa and the sharing with the intention of new policy development relevant to driving the



About the ARC Centre of Excellence for Creative Industries and Innovation

Established in 2005, the Australian Research Council Centre of Excellence for Creative Industries and Innovation (CCI) is an Australian organisation with a research and development focus on the creative

industries, in particular its contributions to society and innovative systems.

The CCI is a leader in its emerging field, a significant role player in the development of innovative experimental and technical methodologies and a major contributor to theoretical and strategic debates with academics, policy makers and industry panels.

national e-skills agenda.

As part of the collaboration, a second Eidos Congress was held in South Africa earlier this year and creative industry was identified as a joint collaborative project. The upcoming winter school knowledge transfer is part of leveraging the relationship to build e-skills research capacity within creative industries necessary to stimulate the local effort as South Africa gears itself for a knowledge and digital economy.

e-SKPCH events

KZN e-SKPCH events

May 2012

- Monthly Stakeholders Forum on the fourth Wednesday

June 2012

- Monthly Stakeholders Forum on the fourth Wednesday
- e-Skills Enablement for Government Services iNdaba

July 2012

- Monthly Stakeholders Forum on the fourth Wednesday

August 2012

- Monthly Stakeholders Forum on the fourth Wednesday

September 2012

- Monthly Stakeholders Forum on the fourth Wednesday

October 2012

- Monthly Stakeholders Forum on the fourth Wednesday

November 2012

- Monthly Stakeholders Forum on the fourth Wednesday

Gauteng e-SKPCH events

May - June 2012

- Incorporating multimedia Blackberry mobile apps course

July and October 2012

- Gauteng e-SKPCH stakeholder meetings

April - December 2012

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

May 2012

- Submit a curriculum for a Postgraduate Diploma for e-Entrepreneurship to SAQA

July - December 2012

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

July - August 2012

- Host a distinguished international academic as a visiting professor

Western Cape e-SKPCH events

August - September 2012

- 13-17 Aug: e-Skills workshop – cohort 2 – face-to-face
- 20 Aug-14 Sep: cohort 2 – online phase

October - November 2012

- 8-12 Oct: e-Skills workshop – cohort 3 – face-to-face
- 15 Oct-9 November: cohort 3 – online phase

Eastern Cape e-SKPCH events

May 2012

- 9 May: E-skills research meeting
- 10 May: First multi-stakeholder board meeting
- 18 May: Fourth multi-stakeholder forum meeting
- 25 May: E-skills research meeting

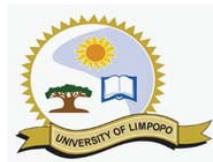
Contact details for the e-Skills Institute

- Mymoena Sharif, mymoena@doc.gov.za

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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