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e-skills institute
newsletter

e-Skills Institute

e-skilling the nation for equitable prosperity
and global competitiveness

Edition 12, March 2013

NeSPA 2012-13 available for comment

Access the document at www.doc.gov.za. Deadline for written comment is 26 March 2013.

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.

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National Development Plan priority areas

Below are the six pillars of the National Development Plan (NDP). The table reflects these priority areas as supported by the draft National e-Skills Plan of Action (NeSPA) 2012-13.

The NDP Priority Areas to be supported by NeSPA 2012-13

NDP Priority Area	NeSPA 2012-13 Action
Pillar 1: Unite around a common pillar to fight poverty and inequality	Developing e-social astuteness across society is an essential component in developing a united approach fight poverty and inequality. Without this essential ingredient it is difficult to see how society can be effectively engaged in dealing with these key issues facing South Africa.
Pillar 2: Active citizenry	Developing active citizenry in current times when more than 90% of poor people in townships have access to a cell phone is heavily dependent upon a national approach that recognises the essential value of new forms of ICT including social media. In turn this is then dependent upon a national e-skills plan of action.
Pillar 3: Inclusive economy	An inclusive economy simply cannot be developed without a clear recognition of the impact of increasingly powerful, mobile, accessible and affordable modern ICT devices. Without a plan to develop capacity (e-social astuteness) right across society to use these devices effectively as customers, clients, consumers, businesses, SMMEs, families and communities, an inclusive economy will remain an elusive dream.
Pillar 4: Build capabilities	All evaluation of addressing poverty and inequality identifies capabilities to socially appropriate ICT for local benefit as an essential requirement. Hence the delivery of a national collaborative and integrated plan to e-skill South Africa lies at the very heart of capacity building for more equitable prosperity.
Pillar 5: A capable developmental state	A capable developmental state in a modern world clearly requires a state that is e-ready. South Africa has dropped from 47th (2007) to 72nd (2012) in the WEF global e-readiness rankings. Achieving a capable developmental state simply cannot be achieved without a concerted effort to address the issues underlying South Africa's e-readiness rankings.
Pillar 6: Leadership throughout society to work together to solve problems	Developing leadership across the breadth and depth of society to solve problems is heavily dependent upon the effective use of modern ICT to bridge socio-economic divides, share discussions across wide groups, build consensus and deliver collaborative approaches. Without a well-developed e-social astuteness across the full spectrum of society making best use of ICT including social media, it is difficult to see how a collaborative approach to problem solving can be developed.

(Table taken from the draft NeSPA 2012-13 document)

NeSPA 2012-13 available for comment
Supporting unity to fight poverty and inequality and developing leadership

The National e-Skills Plan of Action (NeSPA 2012-13) is now ready for public comment. It advances the base laid by NeSPA 2010 and continues to be aligned to the National Development Plan of the country and to the Millennium Development Goals. Recommended actions include: e-social astuteness; increased collaboration, integration and aggregation; a funding mechanism; a changing education environment and community learning centres, among other actions for impact. Access the document at www.doc.gov.za. Deadline for written comment is 26 March 2013.

e-Astuteness for healthy communities
Supporting active citizenry and growing an inclusive economy

With the rapid increase in affordability, mobility and accessibility of mobile and hand-held devices across Africa, there is a real opportunity to exponentially increase the availability of health information for all. Getting information to the patient – and the patient understanding that information – is central to successful e-health implementation. However, the e-skills deficit that still exists on the African continent poses a serious impediment to the effective deployment of e-health solutions that will lead to better health outcomes for all.

e-Strategies Forum
e-Strategies Africa, a public and private sector partnership forum for technology development in Africa, is hosting an e-Strategies Forum from 26-27 March 2013 (www.estrategies.co.za). The intention is to ensure the buy-in of stakeholders in all aspects of technology implementation for health, so that the best ICT solutions are provided and the best use of those solutions is made by the whole of society.

The e-Skills Institute (e-SI) will be chairing a roundtable discussion on 'Building e-astuteness for healthy communities' on 27 March 2013. Moderated by Mymoena Sharif, Chief Director at the e-SI, the panel consists of representatives from the e-SI multi-stakeholder network, including government, state-owned enterprise, business, education, civil society and organised labour.

The debate will look at the key challenges in developing e-astuteness, both within a health (physical, social, epidemiological, attitudinal) context and in the wider community. The roundtable will scope a collaborative approach to harnessing existing resources and identifying sources of new resources, as well as developing a roadmap for piloting and escalating an evidence-based policy and delivery mechanism to develop e-astuteness within a broad health context.

Defining e-astuteness and e-social astuteness

e-Astuteness: Developing e-competent individuals by giving them appropriate ICT-related knowledge and skills, and training them to develop a competent attitude and knowledge to use them and to adapt to the rapidly-changing new forms of ICT devices and associated software (individual focused).

e-Social astuteness: A smart way of applying acquired e-skills and e-astuteness for everyday socio-economic development and better life opportunities for local benefit in a socio-economic dynamic, increasingly impacted by new forms of ICT (societal focus).

The notion of e-social astuteness helps in recognising opportunities in an ICT-enabled world for all people regardless of their formal education, employment status, location, age, gender or physical disablements.

e-Skills for long-term sustainable employment
Supporting unity to fight poverty and inequality and building capabilities

When employment opportunities are presented, no matter which sector, it has become a national priority to ensure that these are developed within a long-term sustainable model. Job opportunities should not be a once-off event but open up future career prospects.

Employment opportunities should also be based within a recognised educational framework to support long-term outcomes. Collaboration with stakeholders is integral to this process.

These outcomes are key principles in the development of training for e-skills jobs required for South Africa's Broadcasting Digital Migration (BDM). The e-Skills Institute (e-SI) has the mandate to drive this multi-stakeholder engagement.

e-Skills curriculum workshop
The third e-Skills National Curriculum Development and Delivery Approach Workshop for Broadcasting Digital Migration was held on 28 February 2013. The purpose was to advance the training of installation technicians and community support field agents. These are an integral part of the South African BDM process. It is estimated that at least 3000 installers will be needed to roll out the programme.

A recognised consolidated course for installation technicians is being developed in collaboration with industry and will be aligned with interests from government, education, organised labour and civil society. The expectation is that this will be ready by April 2013.

The installer programme is central to the roll out of the BDM as it will provide the key skills that enable a smooth transition from analogue to digital. Career pathways to ensure job creation, cyber-preneurship and sustainability are being developed.

Anticipating the e-skills educational demand
Supporting the building capabilities

According to the draft National e-Skills Plan of Action 2012, "[t]he Centre for Higher Education Transformation predicts enrolments of 291,454 FET college students in 2020 and 1,179,095 enrolments in 2030 and graduates are projected to increase from 71,423 in 2010 to 204,018 in 2020 and 825,367 in 2030... This requires an early recognition and appropriate intervention in the e-skilling of both lecturers and students at all South African FET colleges well ahead of the projections."

The e-Skills Institute, in collaboration with the Department of Higher Education and Training (DHET), supports Further Education and Training (FET) colleges as they are a key e-skills target area, especially rural and deep rural areas.

Professional Development Programme
Sixteen lecturers completed the Professional Development Programme (NQF Level 7) for FET ICT Lecturers run by the Eastern Cape Knowledge Production and Coordination CoLab at Walter Sisulu University in 2012. This is a short learning programme targeted at FET ICT lecturers.

The intention is that FET ICT lecturers will be able to demonstrate that they have acquired the e-skills and teaching and learning skills to deliver the National

Certificate Vocational: ICT course successfully. Furthermore the lecturers need to be able to foster e-skills and ICT knowledge in a range of students who show demonstrable evidence of improvement in levels of attainment.

The programme began in January 2012 and ran until July 2012. Certificates were given in November 2012 after assessments.

FET lecturers attending the Professional Development Programme

Decentralised e-Skills Institute architecture
Supporting unity to fight poverty and inequality

The map below shows the decentralised architecture of the e-Skills Institute, illustrating where the central offices are placed as well as the provincial knowledge production and coordination colabs and the further education and training (FET) colleges. Decentralisation is an important tool to ensure engagement on all levels and to drive e-inclusion.
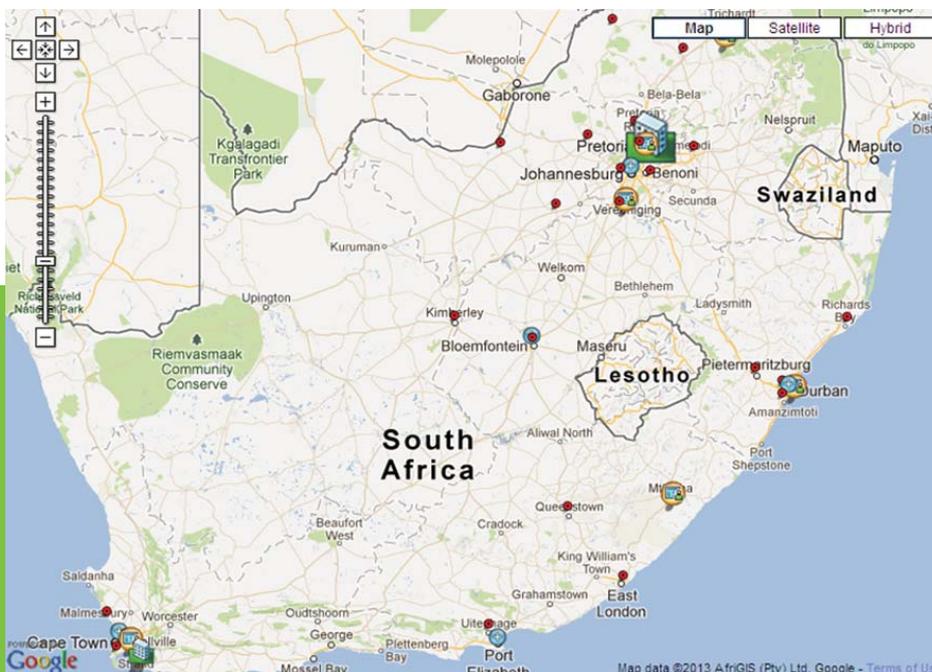
- e-SI offices (2)
- Prov CoLabs (6)
- CFL Telkom (5)
- FET colleges (28)

Smart centres for building an inclusive society
Supporting active citizenry

The e-Skills Knowledge Production and Coordination CoLabs are an essential provincial touch point in the e-Skills Institute's (e-SI) decentralised architecture. To ensure e-skills inclusivity, the e-SI engages on various levels from national and provincial to community level (through the smart centres). This is a strategic engagement as ICT has the potential to aggregate into elite 'silos' rather than being used as a tool for wealth equity, job creation and citizen engagement.

e-SI and the e-Skills CoLabs and the draft 2012 National e-Skills Plan of Action (NeSPA) were given. (See the block on p1 – NeSPA 2012-13 available for public comment.) Delegates assisted in drafting the way forward for the Eastern Cape CoLab.

The report was sent to the Office of the Premier. In her State of the Province Address, Premier Noxolo Kiviet mentioned that "the HRDC, in partnership with the Department of Communications, is working on strengthening the capacity of existing e-Centres that can serve as the starting point for the roll-out of e-Skills Institute Smart Centres in the province". This endorsement for the e-SI smart centre project is essential in a multi-stakeholder collaborative environment that supports the increase of local innovation and access for all.

Proposed activities for 2013

Post the stakeholder workshop, the Eastern Cape CoLab has tabled a list of proposed activities which falls in line with the provincial colab mandate. Activities include:

- A comprehensive provincial environmental scan
- An impact assessment of the FET College ICT Lecturers' Professional Development Programme
- Introducing courses on the use of ICT in education in colleges and schools
- Investigating the role that FET ICT lecturers, students and graduates can play in technology-based courses at agricultural colleges
- E-Skills and e-SI awareness activities, particularly around the opportunities e-skills present for cyber-preneurs, ICT graduates and those within the creative industries
- Fostering the development of apps and the training of app developers to benefit rural communities
- Increasing the embedding of apps development in diplomas and degrees
- Ramping up the roll out of smart centres in the province, particularly in peri-urban and rural areas. This includes using various methodologies to increase the use of the smart centres.
- Increasing public engagement and stakeholder collaboration through a variety of formal and informal mechanisms, and establishing links with ongoing initiatives and platforms for collaboration purposes and to reduce duplication
- Using monitoring and evaluation, and other research, to measure the impact of initiatives, including the smart centres.
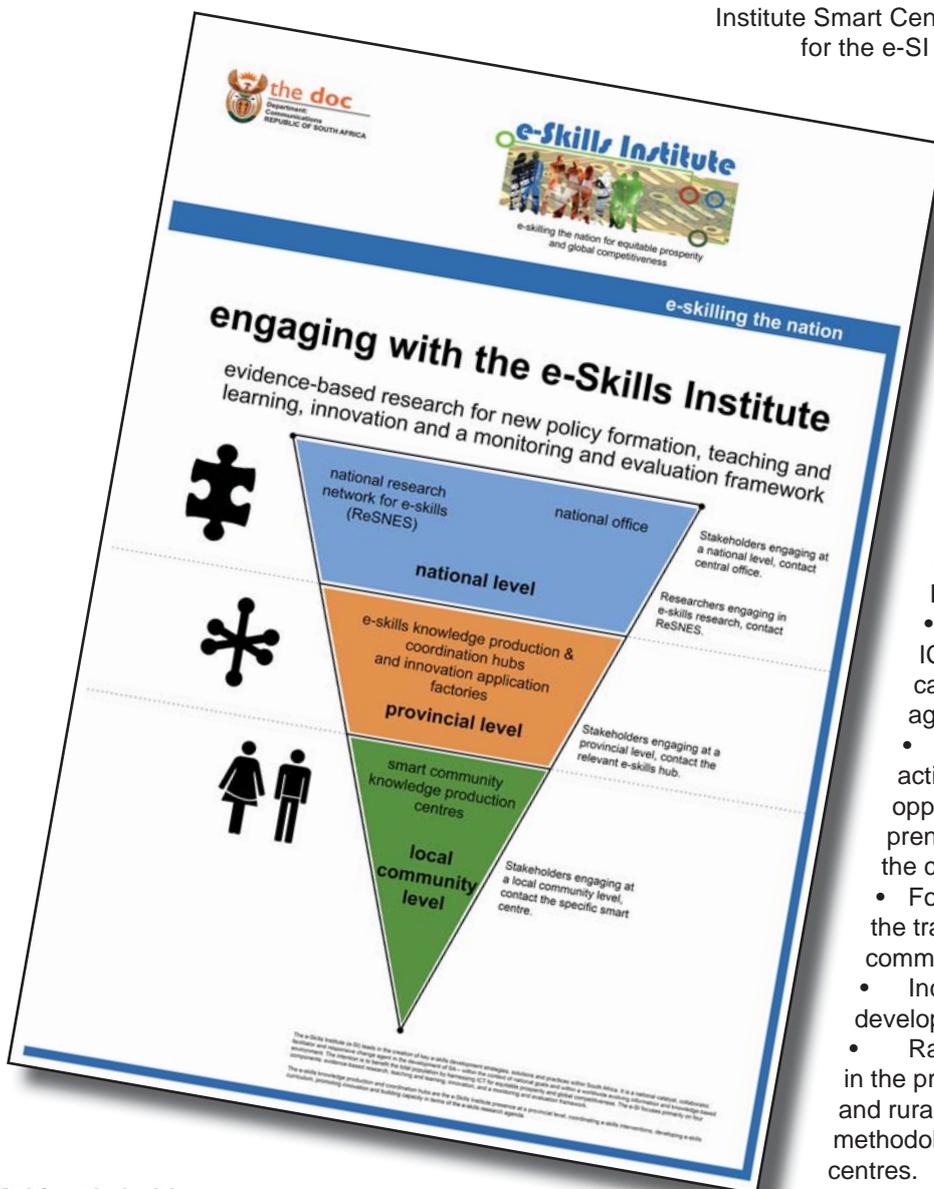
Multi-stakeholder collaboration workshop

The Eastern Cape Knowledge Production and Coordination CoLab, held a stakeholder workshop on 5 February 2013. The event was attended by representatives from business, civil society, provincial and local government, and education.

Presentations on the past and planned activities of the

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The citizen engagement agenda
Supporting the development of leadership and active citizenry

The World Bank, through the UNDP, has a memorandum of understanding with the e-Skills Institute (e-SI). The e-SI architecture allows the World Bank to redirect its programmes to support the national programmes of South Africa. An example of this is the recent engagement with e-Skills KwaZulu-Natal (KZN) Knowledge Production and Coordination CoLab, which is responsible for the thematic area of e-enablement of government services.

The KZN CoLab was invited by the World Bank Institute to the World Bank Global Conference on Citizen Engagement. The event occurred on 18 March 2013 in Washington DC, United States. The CoLab engaged with the World Bank Institute and world leaders, presenting information on the e-SI as well as programmes developed by the KZN CoLab. The relationship will assist with delivering on key pillars of the e-skills strategy that align with the National Development Plan 2030.

The conference brought together tech innovators, development specialists, government officials, academics, civil society representatives, World Bank staff and the private sector. Sessions included discussions exploring how innovative uses of technology can be transformational, how governments can be more responsive and how citizen feedback can be more robust. The intention is to generate ideas on proceeding as a collective in advancing the citizen engagement agenda (http://wbi.worldbank.org/wbi/event/citizen-voices).

e-Social astuteness and citizen engagement
e-Social astuteness is the ability to use ICT and e-skills to engage within society for socio-economic development and local benefit. As noted in the draft NeSPA 2012-13 document, "citizens need to be e-astute to be able to proactively engage with the ever-changing technology platform in order to be effective users of services, build sustainable businesses, develop local applications to enhance opportunities in health, crime prevention, social cohesion, local governance, training and education".

Citizen engagement is a requirement globally. It enhances democracy and drives economies. However, in our rapidly developing technology-enabled world, citizen engagement cannot be divorced from e-skills.

e-SI events

March 2013	April 2013
• 27 March 2013: The e-Skills Institute will be chairing a roundtable discussion on 'Building e-astuteness for healthy communities' on at the e-Strategies Forum in Cape Town (www. estrategies.co.za).	• 18 April: The Eastern Cape CoLab will be visiting the Siyakhula Living Lab in Dwesa in April 2013. At the moment the date is provisional. Stakeholders and students are invited to join. • 18 April: The Gauteng CoLab is holding a stakeholder meeting.

For more information about the e-Skills Institute, contact:
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The e-Skills Knowledge Production and Coordination CoLabs – core focus areas
The scope for delivering on the e-skills agenda is large. To ensure development is aligned with national goals, the five provincial e-skills knowledge production and coordination coLabs each have a core focus area:
• The Western Cape e-Skills CoLab targets e-inclusion and social innovation.
• The Gauteng e-Skills CoLab focuses on e-entrepreneurship, creative industries and new media including mobile application development.
• The Southern Gauteng/Northern Cape e-Skills CoLab looks at knowledge-based economies and e-astuteness.
• The KwaZulu-Natal e-Skills CoLab focuses on e-enablement of government services.
• The Eastern Cape e-Skills CoLab concentrates on ICT for rural development.
• The Limpopo e-Skills CoLab focuses on connected health.

Smart centres for improved communities
Supporting active citizenry and growing an inclusive economy

The draft National e-Skills Plan of Action (NeSPA) 2012-13 envisages using existing e-centres and transforming these into smart community knowledge centres. The centres create a communal point for members of local government, business, education, healthcare institutions and the general public to work together to improve the socio-economic status of a community, thus playing "an even more significant role in achieving the goals of MTSF 2009-14 and NDP 2030".

This transformation will need to be negotiated with the existing owners, in conjunction with the local communities as the direct beneficiaries of the e-skilling actions.

Focusing on education, applied knowledge and cyber-preneurship, the smart centres will be responsible for:

Institute and the KZN CoLab. The KZN CoLab, as a result, has been invited to attend the centre's monthly ICT cluster meetings.

Northern Cape/Southern Gauteng CoLab
The Northern Cape/Southern Gauteng CoLab has been engaging a number of stakeholders regarding developing smart centres in the Southern Gauteng area. This has been running since February 2013.

Meetings with Sedibeng Further Education and Training (FET) College, the managing body for four of the main FET colleges in Southern Gauteng, centred around smart centre finalisation, new learning materials and the possibility of holding train-the-trainer courses. Sedibeng manages

"It is a priority to establish the centres in 'peri-urban, rural and deep rural areas in order to address growing inequalities, poverty and joblessness in these communities'."

- training and learning
- nurturing local talent (particularly knowledge workers)
- enabling e-inclusion
- support for cyber-preneurship and job creation
- fostering social innovation
- developing e-social astuteness

It is a priority to establish the centres in "peri-urban, rural and deep rural areas in order to address growing inequalities, poverty and joblessness in these communities". This will allow for a more equitable and sustainable future and one that responds to local community socio-economic need. The intention is to align the smart centre strategy in a manner that strengthens the National Rural Development Strategy.

KwaZulu-Natal CoLab
On 20 February 2013, a delegation from the KZN e-Skills CoLab and a representative from USAASA visited the Smart Community Centre in the Impendle Municipality, currently a Thusong centre. An assessment was conducted around infrastructure, e-skills and awareness. It included identifying a catchment area of over 1000 people.

A sustainability analysis and needs analysis is pending with a focus on community involvement and needs. Discussions involved highlighting activities by the e-Skills

Heidelberg, Vereeniging, Sedibeng and Vanderbijl Park FET colleges. Seven smart centres have been identified.

Mofolo Primary School in Evaton has been identified as a potential site for a smart centre. It runs a unique model with 150 pupils with learning problems and volunteer teachers. Discussions also included training for the teachers and pupils.

Delegation from the KZN e-Skills CoLab visits the Smart Community Centre in the Impendle Municipality

App development capability on the increase
Supporting the growth of an inclusive economy

e-Skills initiatives need to be coordinated within the multi-stakeholder environment. This improves the ability to ramp up and to create a framework of delivery for impact. An important element is that of monitoring and evaluation as this provides a feedback loop, allowing for fine tuning and constant adaption to community and industry needs. The progression of the MAD Challenge is a case in point.

MAD Challenge 2013
The BlackBerry Mobile Application Development (MAD) Challenge will be running for a second time in 2013. This time the initiative will be hosted by both the e-Skills Institute's Gauteng and Western Cape CoLabs. Research in Motion (BlackBerry) is the industry partner.

As done previously, the MAD Challenge is aimed at introducing secondary school learners (grade 11 and 12) to the world of mobile application development. Learners then create original mobile apps within 10 weeks. It forms part of a national initiative to develop local talent to fill the skills needs and requirements of the ICT market.

New directions
Beyond motivating more students towards ICT careers, the need for mobile application development is growing. Ongoing research at the Gauteng CoLab shows that mobile application development is a scarce skill in South Africa. It needs to be developed at all levels of education in keeping with global trends.

Further research shows that there is a need to match the newly-developed mobile app development skills with industry needs for apps and, more importantly, local community needs. Consequently, the training approach now incorporates a focus on significant community and industry issues. These include apps that help communities with transport, health and government service delivery issues.

The MAD Challenge will now also cater for teachers. Workshops will provide a theoretical/academic framework to evaluate the 'world of apps'.

Wider reach
Last year, the initiative reached 60 students who delivered 17 high quality application concepts. This year the aim is to have 150 students across two provinces delivering 50 apps.

The challenge will run from April to July 2013, with sessions dedicated to the development of both design thinking and cyber-preneurial skills, and core technical Java proficiency.

Western Cape CoLab partners in MAD Challenge
The Western Cape Knowledge Production and Coordination CoLab started Blackberry training for 25 students on 8 March 2013. The intention is to fast-track students to become mentors in the MAD Challenge.

The Western Cape CoLab will be adding to the research component. One dimension will look at the impact of training on students' ability to market themselves. There is also a PhD study looking at social innovation and the leveraging of technology, that is, how to use mobile applications to address social problems.

From digital divide to e-inclusion
Supporting active citizenry and growing an inclusive economy

In the e-skills environment, there has been a shift from 'digital divide' to 'e-inclusion'. Not only does it signify a qualitative shift (looking at monitoring and evaluating socio-economic impact) but it focuses the attention on all members of society, especially those most marginalised.

e-Literacy within correctional services
The Southern Gauteng/Northern Cape (SG/NC) e-Skills CoLab has identified, in collaboration with the provincial government, Groenpunt Correctional Services to see how they can progress with the e-literacy pilot projects. The course running at Groenpunt Correctional Services is in the process of being expanded.

Groenpunt consists of three prisons. A pilot was conducted for the staff at the interim prison and the intention is now to involve the high security and youth prisons. A further proposition is to run train-the-trainer courses to extend the reach to the inmates.

The course includes modules on strengthening community structures, cyber-preneurship, pathways to opportunities and increasing employability. Soft skills, such as problem identification and developing group work, are also taught.

> **"There has been a shift from 'digital divide' to 'e-inclusion'. Not only does it signify a qualitative shift... but it focuses the attention on all members of society"**

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Partners in the Department of Communication's e-Skills Institute multi-stakeholder collaboration

education
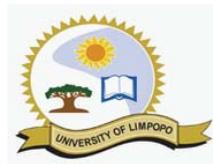
government/South Africa

civil society

business

global developmental partners

Kenya

Rwanda

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

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