



### Social innovation seminar from our International Joint Research Group

The 'S-DIRECT: Social Digital Innovation Research to Empower Communities in Transition' was held on 8 March 2016. [Read more on p1](#)



### Driving high school pupils' interest in ICT and programming

From 30 March to 1 April 2016, the Eastern Cape e-Skills CoLab coordinated a second workshop to introduce programming to school pupils. [Read more on p5](#)



### e-Skills training for the SKA community in partnership with Siyafunda

The NC/SG e-Skills CoLab partnered with Siyafunda Community Technology Centre, Carnarvon, to provide e-literacy courses. [Read more on p7](#)



### Digital literacy training in three provinces

NEMISA conducted digital literacy (e-skills) training during March 2016. The five-day course was given in three different provinces. [Read more on p8](#)

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## e-skills research

## Social innovation seminar from our International Joint Research Group

The 'S-DIRECT: Social Digital Innovation Research to Empower Communities in Transition' was held on 8 March 2016 at the University of the Western Cape (UWC). The seminar showcased current projects of the International Joint Research Group (IJRG).

### What is the International Joint Research Group?

IJRG is building capacity in applying living lab research methodology for digital inclusion and social innovation projects. The focus is on digital inclusion to address community challenges in South Africa. Digital inclusion is about ensuring everyone is part of the new digital world – including marginalised communities like those in the rural areas.

IJRG's overall aim is to gain insights into:

- How social digital innovation can stimulate social and digital inclusion in disadvantaged and vulnerable communities – this needs to be done in a sustainable way that works in the South African context
- The role living labs and innovative e-skills initiatives can play in this process

The goal is to explore a results-oriented, bottom-up approach for viable solutions to local needs and



L to R: Prof Kobus Visser (Dean: Economic and Management Sciences Faculty), Prof Hlengiwe Mkhize (Deputy Minister of the Department of Telecommunications and Postal Services) and Dr Leona Craffert, Director of the Western Cape e-Skills CoLab

challenges. A bottom-up approach means that it starts with the community in need. The solutions aren't general but specific to South Africa and its people.

The research also looks at what affects the processes of digital inclusion. The research literature increasingly shows that social inclusion and digital inclusion are intertwined and reinforce each other. In other words, social aspects (such as culture, environment, social network and gender) influence the level of digital inclusion.

Digital inclusion is not just about creating infrastructure and waiting for people to use it. It's also about understanding and engaging with all the other socio-economic factors that influence people becoming digitally active. Examples of these factors include having the necessary e-skills (digital skills), realising the benefits of ICTs for work and life, and the availability of relevant digital content.

### Why do we need the International Joint Research Group?

Social innovation is increasingly seen as a strategy to address society's challenges. There is a demand for innovative approaches to address social needs and digital needs in South Africa.

According to the World Economic Forum (WEF, 2015), South Africa has dropped in the global e-readiness ranking from the 47th place in 2007 to the 75th place in 2015. The reason for this drop cannot be ICT infrastructure or business uptake of new technologies – these have improved drastically over the past few years. The ranking drop appears to relate to:

- The limited social effects of ICT use – this shows a lack of skills among South Africans to use new

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### What are Living Labs?



A Living Lab is an environment where research and innovation are applied to developing new products, services and processes. This is done with real users in a real-life environment.

People are part of the entire development process as users and co-creators. The process recognises users' needs and the working conditions of service providers. The Living Lab environment is seen as an innovation system.

### What is social innovation?

Social innovation is about new ideas (such as products and services) that meet social needs ie they are for the good of society.

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technologies for personal, social and economic benefits

- The cultural bias in these technologies that don't fit with the local context

Looking at the above factors that affect South Africa's e-readiness ranking, it is clear that developing innovative, solution-driven and bottom-up approaches is essential. These approaches need to provide answers to social and digital needs and challenges.

#### Who are the partners in IJRG?

IJRG is made up of a number of partners, each with its own expertise:

- iMinds-SMIT excels in research on Living Labs, empowerment and e-inclusion. SMIT (Studies Media Information Telecommunication) is the research centre at the Vrije Universiteit Brussel in Belgium and forms part of iMinds, the interdisciplinary institute for broadband technology.
- **Western Cape e-Skills CoLab** and UWC have expertise in the field of social digital innovation, e-skills and e-inclusion in South Africa
- MASC has expertise in long-term ethnographic research, crucial in a multicultural context. The Material and Sensory Cultures of Africa (MASC) Study Centre is at Universiteit Gent in Belgium. It focuses on anthropological research on digital innovations (digital anthropology). An anthropological view gives insight into the practical consequences and the impact of digital culture on everyday life.

#### About the seminar – 'S-DIRECT: Social Digital Innovation Research to Empower Communities in Transition'

The one-day seminar reported on the current IJRG projects. The event was opened by the Deputy Minister Prof Hlengiwe Mkhize. She spoke on 'Digital Readiness of South Africa: The National Strategy and Progress up to date'. (See box on the next page for a report back on her speech.)

Other topics included:

- 'A living labs approach in exploring ICT usage of



Participants at the 'S-DIRECT: Social Digital Innovation' seminar.



#### What is ICT?

ICT stands for information and communication technology.

#### What is an e-skill (digital skills)?


An e-skill is more than knowing the basics of how to use a computer (computer literacy). While it's essential to be computer literate, the important question is: what can you do with that? **An e-skill means being able to use technology to add benefit to your life – to actively take part in the world and move ahead.**

SMEs in Khayelitsha: unintended methodological outcomes' by Dr Leona Craffert, Director of the WC e-Skills CoLab and Prof Walter Claassen, researcher

- 'Exploring the complexity of the digital gender divide and the relevance for South Africa' by Carlynn Pokpas, UWC PhD student
- 'Profiles of digital inequalities in Vlaanderen – potential implications for an emerging country context' by Dr Ilse Marien, post-doc researcher at iMinds-Smit, Vrije Universiteit Brussel
- 'Digital technologies for building community' (Zone-it, the 3 campus initiative and presentation of SoleWay, indoor navigation app) by Dr Annelies Verdoolaage, Prof Koen Stroeken and Dr Musabilla Kilangi
- 'Social Media as an engagement tool to reach marginalised people in South Africa' by Natasha Katunga, UWC PhD student
- 'On the use of NGOs in Belgium to strengthen the public support for development aid' by Dr Dorien Baelden, post-doc researcher, iMinds-Smit, Vrije Universiteit Brussel
- 'Digital Platforms and Digital Social Innovation: why should we take note?' by Wouter Grove, UWC PhD

student

- 'Policy, research and intervention implications of and for S-Direct' by Prof Leo Van Audenhove, International Communications, extraordinary professor UWC and director iMinds-Smit, Vrije Universiteit Brussel

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## Address by the Deputy Minister of the Department of Telecommunications and Postal Services, Prof Hlengiwe Mkhize

In her address, Prof Mkhize noted that 'Social Digital Innovation Research to Empower Communities in Transition' has come at the right time because South Africa is at a stage where "internet connectivity has been realised as a game changer cutting across various economic and social sectors".

UNESCO and ITU's 'State of Broadband in 2015' said: "Investments in broadband must be combined with new investments in training and education to ensure that every woman and man has the skills and capabilities, as well as the opportunities, to make the most of ICTs and new technologies for human rights and dignity, for social inclusion, for poverty eradication and for sustainable development." This is in line with South Africa's drive to become an inclusive information society, as defined by the National Development Plan.

The Deputy Minister views ICTs and internet access as a key enabler of development. It is "a catalyst for accelerating the outcomes of all three pillars of sustainable development: economic development, social inclusion and environmental protection." This is important for attaining the 17 Sustainable Developmental Goals (SDGs) as defined by the United Nations.

South Africa's Broadband Policy – South Africa Connect – outlines a number of activities to improve broadband and broadband use in South Africa. "The vision for broadband is that by 2020, 100% of South Africans will have access to broadband services at 2.5% or less of the population's average monthly income," said the Deputy Minister.

The policy is a four-pronged strategy. It looks at both supply and demand interventions. 'Digital opportunity' is about ensuring that South Africa and its people use the benefit of broadband. This means creating interventions that support e-skills, R&D, innovation, entrepreneurship, and relevant content and applications.

"The internet has made it possible for anyone to share and create their own content, services, applications

and innovations... This has lowered the barriers to entry into the economy and extended the rights of access to information and freedom of expression for everyone," said Prof Mkhize.

She also noted that the internet is a tool for stimulating economic growth in developing countries: "The World Bank reported that a 10% increase in broadband correlates to a 1.38% increase in GDP growth."

There are also opportunities in the social and developmental areas. "In developing countries, the internet is connecting remote populations to markets and strengthening the overall efficiency of service delivery, particularly in areas such as health, education, livelihoods and financial inclusion, as well as creating access to government services for the most marginalised populations," said Prof Mkhize.

The South African government has made internet connectivity in rural areas a priority. Prof Mkhize said, "We have set out plans for the implementation of digital opportunities programmes in the NHI pilot sites to ensure that residents in these areas are able to benefit from the rollout of broadband infrastructure. Having done that, we need to have researchers who will be able to conduct research in these areas. There are many questions... in terms of usage, content development, application development etc."

She said that the department created Ikamva National e-Skills Institute (iNeSI) to provide a national network architecture across government, business, education and civil society: "The national network architecture provides a platform for coordinating the development of an e-skills and e-empowerment society and delivering the National Development Plan in a South Africa increasingly dominated by ICTs."

Science and technology have fundamentally changed the way people live, connect, communicate and transact, This has profound effects on economic growth and development. In line with this, the Deputy Minister commented: "The extent to which developing economies emerge as economic powerhouses

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depends on their ability to grasp and apply insights from science and technology and use them creatively. Innovation is the primary driver of technological growth and drives higher living standards."

The Department of Science and Technology has developed an **ICT Research, Development and Innovation Roadmap**. It supports the country's strategic objective of increasing ICT's impact on society and economic development. "The Roadmap presents a vision that will enable South Africa to become a significant player in the global ICT arena. It provides a coherent framework and plan for South Africa's future investment and planning in ICT research, development and innovation, as well as providing a single point of

coordination of RDI activities through the envisaged Office of Digital Advantage," said Prof Mkhize.

The Deputy Minister said that to maximise and spread innovation, technology hubs are needed in South Africa.

She also spoke about collaborative approaches towards coherent policy making. Budget constraints, a need for measurable impacts and the linear design of traditional research mean that new collaborative approaches are needed. These new approaches should involve a wider variety of stakeholders – from government, education and business to civil society and international donor agencies.



NEMISA's head office will be moving to the following address at the end of April: South Building Waterview Corner, 2 Oppenheimer Ave, Bruma Lake Office Park, Bruma 2026.

### Contact NEMISA

The National Electronic Media Institute of South Africa (NEMISA) can be contacted at the following:

- [info@nemisa.co.za](mailto:info@nemisa.co.za)
- 011 484 0583
- 21 Girton Road, Parktown, Johannesburg, 2193
- PO Box 545 Auckland Park, Johannesburg, 2006

### The provincial e-skills CoLabs

The provincial e-skills CoLabs are based at universities. Each has a focus on a specific area in e-skills:

- **Western Cape e-Skills CoLab:** e-Inclusion and Social Innovation, based at the University of the Western Cape
- **KwaZulu-Natal e-Skills CoLab:** e-Enablement for Effective Service Delivery, based at Durban University of Technology
- **Eastern Cape e-Skills CoLab:** ICT for Rural Development, based at Walter Sisulu University
- **Gauteng e-Skills CoLab:** Creative New Media Industries, based at the National Electronic Media Institute of South Africa (NEMISA)
- **Limpopo e-Skills CoLab:** Connected Health, based at the University of Limpopo
- **Southern Gauteng/Northern e-Skills Cape CoLab:** e-Literacy and e-Business (knowledge economy and e-social astuteness), based at the Vaal University of Technology
- **North West e-Skills Cape CoLab:** e-Agro-tourism, based at the University of the North West



## e-skills training

## Driving high school pupils' interest in ICT and programming

**What happened?** From 30 March to 1 April 2016, the Eastern Cape e-Skills CoLab coordinated a second workshop to introduce programming to school pupils. This was in partnership with the Young Engineers and Scientists of Africa (YESA). High school students attended the three-day workshop at the Walter Sisulu University campus in Chiselhurst, East London.

**Who were the participants?** The 15 pupils came from three high schools in the East London area:

- Alphendale Senior Secondary School
- Mzokhanyo High School
- Umtiza High School

**What did the workshop involve?** The focus was hands-on learning, with pupils working alone and in groups. The aim is to create increasingly complex Scratch applications and to programme Lego Mindstorms robots to follow specific routes.

Scratch is a programming language and an online community where learners can programme and share interactive media such as stories, games, and animation. As youth create with Scratch, they learn to think creatively, work collaboratively, communicate more effectively and reason systematically.

The pupils also attended a presentation on STEM (science, technology, engineering and maths) and ICT-related careers.

**What is the importance of a programming workshop for pupils?** There is a need for skilled software developers all over the world, and this includes South Africa. More and more software applications are being developed for a world that is increasingly becoming technology dependent.

"The Eastern Cape e-Skills CoLab focuses on assisting social and economic development in a predominantly rural province," says Ms Lorna van der Merwe, Acting CoLab Coordinator. The interventions include training youth in e-skills which ranges from digital literacy (e-skills) to higher level skills such as software application development.

"The aim with this workshop is to stimulate

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*Ms Patricia Nofumba, from the district office of Department of Education, with school pupils.*



*School pupils at the schools programming workshop.*

#### Feedback from the students

- "I liked this training opened my mind very well."
- "You learn more things, finding them difficult but at the end solving them."
- "I have learnt so many things that I did not know and never thought about them. Also I am now interested in IT whereas I was not before I came to the training."
- "It was exciting and I learnt a lot. I learnt that it always seems impossible until it's done."
- "It was educational, challenging and very exciting."
- "They way they show care about us and are interested in training us."

### Article continued: Driving high school pupils' interest in ICT and programming

interest and increase the pipeline of students who study Computer Science (or the equivalent) at tertiary level," says van der Merwe. "Interventions that increase this pipeline are crucial for providing the skills and services needed to support the national broadband roll-out."

She noted that this can't be done without collaboration across multiple levels. "In this instance, we partnered with YESA and the District Office of the Department of Basic Education which organised the schools' participation."

**Future plans:** The intention is to create a model which can be rolled out throughout the province. This will simultaneously create participation opportunities for current and past students (IT, education and other).

#### Expansion of the schools programming project:

- **ICT career guidance:** These workshops have highlighted the need to increase the quality and quantity of ICT career guidance offered to school learners. The CoLab will be looking for partners to develop this.
- **Capacitating schools and teachers to offer IT:** The programming project will also provide valuable research data around the topic of STEMI (science, technology, engineering, maths and innovation) education and offerings at schools. Schools cannot offer IT as a subject unless the educators have the capacity to teach it. The CoLab is looking forward to interacting with the Department of Education and other role players to assist with the design and offering of educator training. 😊

### In the news

Ms Lorna van der Merwe, Acting Coordinator from the EC e-Skills CoLab, was interviewed on TruFM on 2 April 2016. She spoke about the e-skills agenda, how the CoLabs work with universities, and what the schools programming project is about.

*School pupils at the schools programming workshop.*



### NEMISA and e-skills for the broadband rollout

SA Connect, South Africa's broadband policy, outlines a need for developing e-skills (digital skills) as part of the Digital Opportunities pillar. This is part of ensuring that there is demand for broadband and that people make use of the infrastructure and technology.

NEMISA has been an integral part of planning for e-skills interventions – provincially and nationally. Below are some of the meetings and outcomes:

- **Meeting with the Department of Telecommunications and Postal Services and OR Tambo District Municipality, 10 February 2016:** This involved discussion around e-skills and information ethics training.
- **Meeting of the Provincial ICT Working Group, Eastern Cape, 23 February 2016:** This involved

updates on the broadband rollout and plans going forward. The EC e-Skills CoLab presented the report, 'Draft Terms of Reference for the development of a provincial broadband skills plan' for discussion. The CoLab also presented its proposed plans for 2016/2017 and the Digital Skills Framework.

- **Meeting of the Provincial Broadband Skills Sub Committee, Eastern Cape, 14 March 2016:** Representatives shared some of the aims, skills development plans and skills needs related to their specific organisations and departments. It is envisaged that the committee will provide a platform for sharing information and reducing duplication, thus allowing for joint planning and effective use of resources.



## e-skills training

## e-Skills training for the SKA community in partnership with Siyafunda

The Northern Cape/Southern Gauteng e-Skills CoLab has collaborated with the Siyafunda Community Technology Centre (SCTC), Carnarvon, to provide e-literacy courses. It is part of the community services provided by the Square Kilometre Array (SKA).

The SKA project is an international effort to build the world's largest radio telescope. It will eventually cover a square kilometre (one million square metres) of collecting area.

### What is the Siyafunda Community Technology Centre?

The SKA partnered with Siyafunda to start the centre in Carnarvon. Siyafunda has community knowledge centres around the country ([www.siyafundactc.org.za](http://www.siyafundactc.org.za)).

The Siyafunda Community Technology Centre was created so that people can access computers, the internet and other digital technologies. This is for them to gather information, create, learn and communicate with others, as well as develop essential digital skills. Beyond digital literacy training, the community uses the centre to search the internet, check emails, type assignments and CVs etc.

### The CoLab partnership

"The CoLab is partnering with the Carnarvon centre as part of the e-literacy roll out in the Northern Cape," says

Ms Antoinette Lombard, the CoLab Director. The e-literacy software was installed on 11 March 2016.

Currently, the staff of two is training to become facilitators. The training started on the same date as the installation and continues for about three weeks.

"It is self-paced learning. The CoLab then does the assessment and certification," says Ms Lombard. Once this is complete, the e-literacy course will start.

The CoLab, based at Vaal University of Technology (VUT), will also be providing English and work preparation courses to the Carnarvon community through the centre.

"We are very excited for the journey we taking with VUT and NEMISA – with the 'e-Skills for all' initiative. It has created a new enthusiasm and zest for us, as the employees, and we are eager to share the interest with the community. 'e-Skills for all' is the future!" says centre manager, Prudence Moos.

"The Northern Cape/Southern Gauteng e-Skills CoLab wants to thank management from Siyafunda and the SKA for their continuous support of this centre. We are looking forward to a successful and long relationship with SKA through the centre," says Ms Lombard. 😊

*The Siyafunda Community Technology Centre in Carnarvon.*



## Awareness about e-voting on the African continent

Dr Surendra (Colin) Thakur delivered a public lecture for The Electoral Institute (TEI), Nigeria, on 23 March 2016. The topic was 'ICT and Electronic Voting: Issues and Challenges'. Dr Thakur was invited to the event as a guest of TEI and the Independent National Electoral Commission. The event was co-hosted by the Nigerian Communications Commission.





## e-skills training

## Digital literacy training in three provinces

NEMISA was part of digital literacy (e-skills) training during March 2016. The five-day course was given in three different provinces. It is an initiative between the following entities:

- The Department of Telecommunications and Postal Services (DTPS)
- NEMISA
- The University of Pretoria's African Centre of Excellence for Information Ethics
- The Dr Kenneth Kaunda Municipal District (for North West)
- The Pixley Ka Seme District (for Northern Cape)
- The OR Tambo Municipal District (for Eastern Cape)

## Training focus

The University of Pretoria undertook training in Information Ethics on the first day. This looked at information ethics and digital citizenship, as well as cyber (online) security, safety and crime.



## What is information ethics?

Information ethics looks at the ethical standards and moral codes governing information, this includes the use of information. It has become even more important with the sharing of electronic information, such as on the internet and in emails.

## What is digital citizenship?

A digital citizen usually means a person who regularly and effectively uses ICT and the internet. Digital citizenship can be defined as the norms of appropriate, responsible behaviour when using technology.

The remaining four days focused on digital literacy training conducted by NEMISA. This included an introduction to:

- Using Microsoft Office Suite (emails, documents, spreadsheets and presentations)
- The internet and how to use internet applications such as cloud storage (Dropbox)
- Social media and blogging

## About the delegates

The delegates were unemployed youth, with an emphasis on women. They came from the partner district and were selected by the district.

## The training

- **Potchefstroom, North West:** Digital literacy training ran from 29 February to 4 March 2016. There were 58 participants, split into two groups. The training took place in the Kenneth Kaunda Municipal District.
- **De Aar, Northern Cape:** Digital literacy training ran from 14-18 March 2016. There were 30 participants and they were trained in De Aar, Northern Cape.
- **Mthatha, Eastern Cape:** Digital literacy training ran from 14-18 March 2016. There were 37 participants and they were trained at in Mthatha.



Trainers and participants at the Northern Cape digital training.



Participants at the Eastern Cape digital training.



## e-skills training

## e-Centre manager training in the Western Cape



*Trainers and participants at the five-day e-centre manager training course in the Western Cape.*

e-Centres have a critical role to play in the e-skilling of communities. Developing digital literacy (e-skills) is essential for citizens to take advantage of ICTs, broadband and government e-services. Part of e-skills is understanding and being aware of the benefit of ICTs.

If South Africa is to be an e-literate society by 2030 – a National Development Plan target – e-skills need to reach the masses. With support, e-centres can play a pivotal role in expanding the reach of e-skills training.

#### What is an e-centre?

e-Centres (e-intermediaries) are places where people have access to ICT and ICT services. However, this is just the start. They are also seen as tools to foster economic development, offering services that allow for entrepreneur support, innovation and social support through ICTs.

Some of the current services include: printing, free email, free internet, research for school programmes, general research, and free access to government services, informal training and formal training.

#### e-Centre manager training

**What happened?** From 1-5 February 2016, 23 delegates participated in e-centre manager training at the University of the Western Cape (UWC). This was a partnership between the Western Cape e-Skills CoLab, UWC's Centre for Innovative Education and Communication Technologies (CIECT) and Cape Access (Provincial Government: Department of the Premier). Dr Juliet Stoltenkamp and her team from CIECT – a key stakeholder of the CoLab – developed and presented the training. The team consists of: Norina Braaf, Valentino van de Heyde, Clint Braaf, Marion Hermanz, Sonwabo Jongile, and Joniff Cleophas.

**Audience?** The delegates were e-centre managers and community workers from across the Western Cape.

**Type of qualification?** The training looked at the fundamentals of e-centre management. It is a five-day face-to-face course. This is then followed by a six-week online course.

It is accredited at NQF level 6. (NQF stands for National Qualifications Framework.) Participants get a certificate of attendance after the successful completion of the five-day training programme and a certificate of completion once the six-week online programme and assignments have been completed.

**Training focus?** Following are examples of some of the topics covered in training:

- Services, marketing and promotion of e-centres
- e-Centre planning – this includes understanding the business plan, vision, mission and objectives
- Monitoring and evaluation of e-centres
- Information management
- Creating an e-centre website to meet community needs
- Creating an information resource bank
- Creating an e-centre inventory
- Final presentation drawing on e-centre marketing and community needs, as well as monitoring and evaluation 😊

#### CoLab comment

"This has been one of the cornerstone projects of the WC e-Skills CoLab. The CoLab aims to support e-inclusion intermediaries, specifically when facilitating the e-skills development of community members," says Dr Leona Craffert, WC e-Skills CoLab Director.



## understanding e-skills needs

## Understanding community needs for connected health e-skills

Rural clinics face an enormous challenge with record keeping. This challenge impacts on the clinics' ability to provide effective service delivery for their patients. The Limpopo e-Skills CoLab's main focus is on connected health (or e-health).

As part of the requirements for e-skilling the community, province and country, the CoLab has been conducting research on patient management systems in a rural setting.

### CoLab survey of clinics

A CoLab survey of clinics in the area identified the immediate needs – the electronic health record. An electronic health record has multiple benefits. These include:

- Speeding up the registration process
- Documenting the patient's interaction with the health services
- Ensuring patients that visit more than one clinic in the area get the same level of care, as well as ensuring there isn't abuse (particularly with drug dispensing)
- Facilitating monthly reporting (which is currently done manually)

### Developing, requirements and guidelines

The Limpopo e-Skills CoLab has developed a set of requirements for a patient management system. It includes maintaining patients' right to privacy, compatibility with any national initiative, noting there isn't always connectivity in rural areas, and facilitating meaningful reporting that can feed into 'big data' systems to support planning and policy-making on a regional, provincial and national level.

The CoLab has also developed a set of guidelines for system development and implementation. These include:

- The patient experience, as well as being able to show the benefits to users ie healthcare workers
- Being intuitive and easy to use (with users involved in the development process)
- Providing role-specific information quickly and easily, in an appropriate format on an appropriate device, while keeping the patient's right to privacy
- Empowering individuals to act on the system information, as well as being process driven so users interact with the system at every stage
- Being scalable

The Limpopo e-Skills CoLab is currently testing a number of systems, particularly open source systems. This will be for four rural clinics in the Dikgale area of Limpopo. 😊



### What is connected health or e-health?

e-Health means using ICT (information and communication technology) to assist with healthcare. It usually encompassing three main areas:

- Delivering health information, for health professionals and health consumers, through ICT.
- Using the power of ICT and e-commerce to improve public health services, such as through the training of health workers.
- The use of e-commerce and e-business practices in health systems management




## e-Skills CoLab profile

## All about the Eastern Cape e-Skills CoLab: ICT for Rural Development

NEMISA is in the process of becoming the Ikamva National e-Skills Institute (iNeSI). Its aim is to e-skill South Africa. South Africa's National Development outlines an e-literate society by 2030. NEMISA/iNeSI is part of making this vision into a reality.

It also plays a significant role in training e-skills (digital skills) for the broadband rollout. SA Connect, the country's broadband policy, has Digital Opportunity as one of its pillars. Digital Opportunity looks at the ways broadband can be used for social and economic development. One of the focus

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Ms Lorna van der Merwe, Acting Coordinator for the Eastern Cape e-Skills CoLab, at the 2016 school's programming project.

## Article continued: All about the Eastern Cape e-Skills CoLab: ICT for Rural Development



'ICT and Agriculture: Realising the Development Dividend' 2015 seminar.

Pilot e-literacy programme in East London 2015.

areas is training South African in digital skills (e-skills) so that they have the know-how to use broadband in a way that helps individuals and communities.

NEMISA/iNeSI works on a national, provincial and local level. Its CoLabs focus on e-skilling on a provincial level. Each CoLab has its own focus area. The aim is that the provincial e-skilling interventions and the CoLab focus area are developed so that they can be scaled nationally to cover the whole of South Africa. Following is a focus on the Eastern Cape (EC) CoLab. The other CoLabs will be covered in consequent newsletters.

### The EC e-Skills CoLab: ICT for Rural Development

Like other CoLabs, the EC e-Skills CoLab activities focus on the following:

- Curriculum and course development, as well as e-skills training
- Knowledge for Innovation – this means activities such as commissioning and presenting research reports, hosting colloquiums, thought leadership engagement and product development (apps, videos etc.)

To find out more, we asked Ms Lorna van der Merwe, Acting Coordinator, about the EC e-Skills CoLab and her work there.

#### Q Please explain the CoLab focus – ICT for Rural Development?

The CoLab focus is on how ICT can be used to impact positively on the development of information-poor rural, peri-urban and remote areas. It is also about expanding the power of ICT to connect these areas with the information society and knowledge economy and to break down barriers to knowledge and information exchange.

To achieve maximum impact, the aim is for these activities to take place within a framework of multi-stakeholder collaboration and aggregation.

#### Q How does NEMISA and the CoLab's work align with national policy – such as SA's broadband policy?

SA Connect, South Africa's broadband policy, is a good example to use. The multi-stakeholder collaboration and aggregation approach aligns with the Digital Opportunity pillar of SA Connect.

The broadband policy recognises that providing infrastructure alone will not create an e-literate society. While infrastructure and services are essential, there needs to be a demand for these. Hence one of the SA Connect pillars is called Digital Opportunity. This focuses on creating the demand through developing a nation of people that are e-skilled and e-astute.

The DTPS has named OR Tambo District Municipality, Eastern Cape, as one of the first targets for broadband roll-out.

#### Q How is the EC CoLab assisting with the provincial broadband skills development plan?

The CoLab is a coordinator, with the Eastern Cape Development Corporation (ECDP), of the Provincial Broadband Skills Sub Committee. This is a structure that reports to the Provincial Broadband Steering Committee.

The CoLab has submitted a draft Terms of Reference for compiling a five to 10 year provincial broadband skills development plan. It is aligned to the general skills development strategy and plan for the province.

The draft Provincial Broadband Master Plan calls for the focused use of ICT infrastructure and services to develop specific sectors in the province (for example, agriculture). The CoLab has co-hosted a seminar and mini conference around the theme of 'ICT and Agriculture – realising the development dividend'.

The outcomes from these events have led to a call for establishing a multi-stakeholder ICT and Agriculture working group and the need to identify the research, products and

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Article continued: All about the Eastern Cape e-Skills CoLab: ICT for Rural Development



Eastern Cape e-literacy graduation in December 2015.



2015 Social Media Boot Camp in East London.



2015 school programming workshop

training for stimulating the EC agriculture sector through the use of ICT. The CoLab hopes to make a significant contribution to each of these components.

**Q Are there other specific focus areas that you want people to know about?**

One of our focus areas is collaboration with the TVET sector. This is to increase the e-skills capacity of staff and students. (TVET stands for Technical Vocational Education and Training.) We are also working on increasing ICT career awareness within the school sector and promoting computer programming as a field of study.

**Q What are the EC e-Skills CoLab's plans over the next financial year?**

- A large proportion of our training will be related to supporting the broadband rollout, for example, in the

**EC e-Skills CoLab Message**

The overarching goal of the national e-skills agenda is to develop the human resource capacity of all citizens to use technology for socio-economic development. This is particularly relevant in a predominantly rural province where challenges – like high youth unemployment – compound the digital divide. Interaction with role-players (in government, business, education, labour, civil society and within communities) confirms the pivotal role that ICT can and should play to bridge the divide.

The CoLab is extremely grateful for the enthusiastic support and enthusiasm for the e-skills project in the Eastern Cape. We look forward to harnessing the opportunities offered and for these to act as a catalyst to increase digital awareness, capacity, research and resources within the province.

OR Tambo district. This will cover basic e-literacy training for communities and e-skills for municipal managers.

- We will continue with the roll-out of e-skills training interventions aimed at capacitating youth to use technology effectively for their and the community's benefit. It includes the project to introduce programming to school pupils. We hope to stimulate interest and increase the pipeline of students who will go on to study Computer Science or the equivalent at universities and TVET colleges.
- There is other training aimed at unemployed/self-employed youth and students in the TVET and university sector, as well as SMMEs. It will centre on the use of ICT, for example, for job seeking and entrepreneurship purposes.
- We hope to engage in research and other activities related to the TVET sector. For example, the impact of technology ('Industry 4') on post-school training is of particular interest (such as in the motor manufacturing industry).
- Finally, we aim to participate in research, colloquiums and thought leadership engagements related to broadband skills planning and development.

**Q What do you do at the CoLab?**

I am responsible for managing, planning, coordinating and implementing of all CoLab activities. These activities are pre-approved by the e-Skills CoLab Management Committee and by NEMISA.

**Q What is your background?**

I worked in the software development industry for 25 years in various positions: programmer, analyst, trainer, project manager and IT manager. This was before I joined the then-named Border Technikon. It is now called Walter Sisulu University. I became a lecturer in the IT Department in 2001.

I am passionate about assisting youth to acquire technology-based skills for advancement opportunities for themselves and their communities. 😊