Collaboration for Impact

E-skills News

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The NEMISA intends to benefit the total SA population by harnessing ICT for equitable prosperity and global competitiveness. It leads in the creation of key e-skills development strategies, solutions and practices within SA.

It is a national catalyst, collaborator, facilitator and responsive change agent in the development of SA – within the context of national goals and within a worldwide evolving information and knowledge-based environment.
Welcome to DTPS Deputy Minister Stella Tembisa Ndabeni-Abrahams

Since 31 March 2017, Ms Stella Tembisa Ndabeni-Abrahams has been the Deputy Minister of Telecommunications and Postal Services. She was previously the Deputy Minister of the Department of Communications from 2014 to March 2017.

Deputy Minister Ndabeni-Abrahams has been a member of a number of parliamentary committees, as well as Eastern Cape provincial committees. She is also a recipient of the Premier’s Award for her involvement in voluntary activities aimed at improving peoples’ lives.

The Deputy Minister is currently enrolled for a Masters in Telecommunications, Policy and Regulation Management at the University of the Witwatersrand.

NEMISA’s participation at World Economic Forum Africa

NEMISA presented on its role, the CoLabs and the e-skills activities for SMMEs at the World Economic Forum Africa. This was held from 3-5 May 2017 in Durban. NEMISA presented at the ICT SMME Imbizo, the theme being ‘Enabling partnership for ICT SMME participation’. (https://www.weforum.org/events/world-economic-forum-on-africa-2017)

The provincial e-skills CoLabs

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

• e-Inclusion and Social Innovation CoLab, based at the University of the Western Cape
• e-Enablement for Effective Service Delivery CoLab, based at Durban University of Technology
• ICT for Rural Development CoLab, based at Walter Sisulu University
• Creative New Media Industries CoLab, based at the National Electronic Media Institute of South Africa (NEMISA) central office, Gauteng
• Connected Health CoLab, based at the University of Limpopo
• Knowledge-based Economy and e-Social Astuteness (e-Literacy) CoLab, based at the Vaal University of Technology
• e-Agro-Tourism CoLab, based at the North-West University

Contact NEMISA

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Developing e-skills in creative new media

Consider the way Uber has changed the taxi industry? How Airbnb has changed travelling? Digital technologies (or ICTs) have changed the way we do things. There has been a shift from traditional to digital industry. ICTs, including the internet, have had an impact on everything from manufacturing to services.

Policies focusing on digital development
The National Development Plan (NDP) envisions an e-skilled society by 2030. This provides a framework for South Africa’s national policies – driving the country from a predominantly agrarian-based society to a knowledge-based society.

To be part of the digital economy, to be globally competitive and to ensure inclusion and equality for its citizens, South Africa needs to develop an environment that promotes a knowledge-based society. The broadband rollout (an extension of SA Connect), digital migration and the national ICT White Paper are examples of this.

These policies take into account the multiple factors that are needed to create an enabling environment. This includes developing e-skills (digital skills) so that people can make use of the new opportunities for employment and entrepreneurship.

ICTs have changed media
The notion of media has changed dramatically. With the new spaces provided by rapidly-evolving technologies (think YouTube, podcasts, online radio etc), there is a greater need for content creators and content services.

Launch of Elgin FM, Grabouw
NEMISA participated in the launch of Elgin FM on 31 March 2017. The community radio station primarily broadcasts to the Grabouw community in the Western Cape. The event
ICTs and e-skills for sustainable development and growth

The focus of the 2017 State of the Nation Address was radical economic transformation. Part of this includes ICTs for socio-economic inclusion. This is specifically addressed in the National Integrated ICT Policy White Paper.

**Range of technologies as part of ICT**

Digital technologies (ICTs) have impacted on every area of life and work. The White Paper defines ICTs as a broad range of technologies, including computing and IT, telecommunications technology (including fixed and wireless telephony and data communications), audio and audio-visual content (including broadcasting), and the internet (including the services carried over this platform). Postal services are also positioned as part of the mix.

**Convergence of technologies on the same device**

The range of technologies that fall under ICT continue to grow as more technologies operate together i.e. converge. A way to understand this is to look at how these technologies are increasingly accessed using the same devices.

The White Paper notes: “A mobile phone, for example, can be used to access the internet, read email, make calls and listen to music or the radio. Calls can be made over the mobile network or via over-the-top internet based services (eg video-on-demand, Skype and WhatsApp).”

This example shows how important access to ICTs and the e-skills to use them are for socio-economic inclusion. Without these, there is little access to information, connection, services etc.

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**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.

**What is ICT?**

ICT stands for information and communication technology.
Focus on the North West Province
The North West Province recognises the importance of ICTs in sustainable development for economic growth. Because of the province's demographics, its focus is on VTSDs (villages, townships and small dorpies) as the core to provincial growth. Provincial government has outlined three key focus areas for VTSDs – agriculture, culture and tourism (ACT).

The e-Agro-Tourism CoLab, based at North West University, has been interacting with provincial, district and local government around ICT and e-skills opportunities for the province.

Closing the digital and the knowledge divide
Without access to the ICT ecosystem, there is a digital and a knowledge divide. Segments of the population cannot engage with ICTs and this means they are left behind in a world that increasingly depends on ICTs for socio-economic development. This can impact on finding work, entrepreneurship, education, financial inclusion, and so much more. For there to be digital transformation, all South Africans need to have access to the ICT ecosystem.

Means and knowledge to be able to use communications technology to improve the quality of their lives.

e-Agro-Tourism CoLab presents at North West Agricultural Extension and Advisory Services Conference
The e-Agro-Tourism CoLab presented on 'The nexus of livelihoods assets and food security: cases and applications in North West Province' at the 9th Provincial Agricultural Extension and Advisory Services Conference. The event occurred from 14-17 February 2017.

About the conference: The conference explored the links between agriculture, tourism and rural development. The focus was on improving farmers' livelihoods with the theme 'Agricultural Extension as a special purpose vehicle for deepening unity within the sector'. There was also an outreach programme.

Audience: The audience included provincial agricultural extension officers and stakeholders from agriculture, health, marketing, private organisations and strategic partners.

CoLab participation: The e-Agro-Tourism CoLab introduced the links between agriculture, tourism and ICT. Agricultural Extension and Advisory Services (EAS) was described as part of systems and mechanisms designed to build and strengthen the capacity of rural farmers and other stakeholders. This is achieved by:

- Providing access to information and digital technologies
- Enhancing agricultural skills and practices
- Providing capacity to innovate

The CoLab presented research findings, as well as examples of ICT in agriculture for the improved livelihoods of farmers. These highlighted the CoLab’s potential role in improving livelihoods, alleviating poverty and improving e-skills (digital skills).
Article continued: ICTs and e-skills for sustainable development and growth

- **FarmerConnect™** ([www.farmerconnect.org](http://www.farmerconnect.org)) – a platform and content delivery system enabling agencies to deliver crucial and timely information to farmers through SM Ses. It also connects with various information portals for contextual information, such as weather reports, market intelligence, and government announcements.

- **Group Certification Management** ([http://www.ict4ag.org/en/plug-and-play-day/group-certification-go-management.html](http://www.ict4ag.org/en/plug-and-play-day/group-certification-go-management.html)) – a software programme that supports smallholder groups and businesses with small producers under contract farming with the management of their internal control system.

- **Hello Tractor** ([http://www.hellotractor.com](http://www.hellotractor.com)) – an award-winning venture where networked tractors can generate sustainable profits for both tractor owner and the smallholder farmers who need their services.

- **Mobile Agribiz** ([www.mogribu.com](http://www.mogribu.com)) – a web and SMS mobile application that helps farmers decide when and how to plant crops, select the best crops for a given location using climate and weather data, and connect to the available market. Farmers in the Congo improved their productivity and increased their incomes by 40%.

- **Web 2.0 and Social Media Tools for Agri-business Marketing** ([www.futuristic.co.ke](http://www.futuristic.co.ke)) – Simple, open-source internet-based applications and services designed to enhance online collaboration are now available to the wider public at little or no cost at all. These new online technologies, known as Web 2.0 and Social Media applications, enable people to collaborate and to create, share and publish information.

- **Social Media for Agricultural Development Practitioners** ([www.ictforag.org/social](http://www.ictforag.org/social)) – harnessing connectivity via social media can, for development practitioners, expand community reach, strengthen partner relationships, support programmatic initiatives, and increase the visibility of work.

- **Access Agriculture** ([www.accessagriculture.org](http://www.accessagriculture.org)) – facilitates the translation and distribution of agricultural training videos in developing countries.

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**e-Agro-Tourism CoLab presents at Provincial Government Energy, Science, and ICT Lekgotla**

The e-Agro-Tourism CoLab presented on the CoLab and its activities at the Bokone Bophirima Provincial Government Energy, Science, and ICT Lekgotla. The event was hosted by the North West Provincial Planning Commission from 2-3 March 2017 in Potchefstroom. An exhibition was run in parallel.

The theme was ‘Using Energy, Science and ICT to stimulate sustainable VTSD economic development in the North West Province’. (VTSD refers to ‘villages, townships and small dorpies’.)

**Lekgotla aim:** The aim was to propose practical implementation programmes for energy, science and ICT challenges within the North West Province. This was underpinned by the focus on agriculture, culture and tourism (ACT) in growing VTSD economies and contributing towards National Development Plan objectives. ACT and VTSD are seen as the nucleus of sustainable economic growth in the province.

**Audience:** These included representatives from national and provincial departments, district and local municipalities, NGOs, business, civil society and education.
Article continued: ICTs and e-skills for sustainable development and growth

ICT focus: Access to ICT is seen as an essential enabler of economic growth and social inclusion, with opportunities for promoting and driving agriculture, culture and tourism. Representatives from the e-Agro-Tourism CoLab were able to contribute to discussions on provincial policy, practical programmes and developing an ICT road map. Training and e-skills development was discussed.

CoLab presentation: The CoLab’s thematic focus area was presented – e-agro-tourism. ICT digital opportunities were presented, including:

- Online sales and marketing products
- Designing apps for both agriculture and tourism
- Digitisation of agriculture and tourism areas
- Cyber security enhancement within the province

The presentation included opportunities for ICT entrepreneurship and e-skills development.

News update
- The e-Agro-Tourism CoLab, based at North West University, has a memorandum of Understanding with 3rd Efx. The aim is to establish ICT Techno-hubs in the North West Province to develop ICT SMMEs.
- NEMISA, represented by Mr Doc Fick, Head of Broadcasting, delivered the keynote address to graduates at the North West University Graduation Ceremony on 26 April 2017. The audience included over 500 graduates from the Faculty of Human and Social Sciences. The focus of the address was on the need for e-skills (digital skills) and e-skills research, and the role that NEMISA plays in this environment.

Upcoming events

- **DTPS ICT Consultative workshops** around input on the ICT road map. Contact the DTPS for further info: https://www.dtps.gov.za/index.php?option=com_contact&view=contact&id=1&Itemid=109
- **Eastern Cape e-Learning Summit 2017**, East London, 18 May 2017: Imbizo events and the Eastern Cape Department of Education have invited stakeholders to look at ways to help enhance teaching and learning outcomes in the province using ICT. This initiative is supported by the Department of Basic Education, the Department of Telecommunications and Postal Services and SABC Education. The event will be held under the theme “e-Learning an imperative for sustainable quality education”.

Trends in e-skills and the e-skills environment

- ICTs, and the internet in particular, can have a transformative effect on education in Africa, says the Internet Society report ‘Internet for Education in Africa – Helping Policymakers to Meet the Global Education Goals’ (http://APO.af/Tol27n). The report assesses how the internet is used in Africa's education sector. It also looks at the untapped opportunities by examining experiences in other regions, and provides recommendations for policymakers to help encourage learning via the internet. The Internet Society’s Enabling Environment Framework (http://APO.af/0gCYEh) provides guidance and highlights the necessity of encouraging infrastructure development, fostering skills and entrepreneurship and establishing governance for the internet ecosystem – with a particular focus on clear and holistic policies for ICT in education in Africa.
- Digital start-ups are important drivers of innovation in Africa. Consequently, the World Bank Group launched a business acceleration programme, XL Africa (www.XL-Africa.com). It’s designed to support the 20 most promising digital start-ups from Sub-Saharan Africa.
NEMISA is a globally-recognised collaborative model that allows stakeholders to sustainably meet South Africa’s e-skilling objectives.

NEMISA 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 implementation, to benefit the total population.

Alignment to government policy: The above objectives are aligned to the new broadband policy, South Africa Connect, and the National Development Plan 2030, among other national and international goals.

Multi-stakeholder collaborative platform: NEMISA provides a formal multi-stakeholder collaborative platform that aligns all stakeholders (business, government, civil society and education) with a common vision. This common vision ensures that e-skills initiatives are coordinated within a national framework, reducing duplication and increasing impact.

Five focus areas: NEMISA primarily focuses on five components.
• Knowledge for innovation (research)
• e-Astuteness (teaching and learning)
• Multi-stakeholder collaboration
• Innovation
• Aggregation (monitoring and evaluation framework)

Providing national, provincial and community level access: Through collaborative partnerships, NEMISA is organised on a national level, a provincial level and a local community level. NEMISA’s central office coordinates nationally and globally.

The e-skills knowledge production and coordination CoLabs (e-skills CoLabs): These are situated at universities, with one in each province. There are currently 7 e-skills CoLabs:
• e-Inclusion and Social Innovation CoLab, based at the University of the Western Cape
• e-Enablement for Effective Service Delivery CoLab, based at Durban University of Technology
• ICT for Rural Development CoLab, based at Walter Sisulu University
• Creative New Media Industries CoLab, based at the National Electronic Media Institute of South Africa (NEMISA)
• Connected Health CoLab, based at the University of Limpopo
• e-Literacy and e-Business (knowledge economy and e-social astuteness) CoLab, based at the Vaal University of Technology
• e-Agro-Tourism CoLab, based at the North-West University

There will ultimately be nine e-skills CoLabs correlating to the nine South African provinces.

The e-skills CoLabs provide knowledge spaces for collaboration at a provincial level.
Smart community knowledge production centre (smart centre): These allow for interaction and coordination at a local community level. NEMISA’s smart centre network is currently being developed across the country.

NEMISA’s national research network is a multi-stakeholder collaborative network that focuses on knowledge for innovation (research).

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<th>NDP Priority Areas supported by NeSPA 2013</th>
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<td><strong>Pillar 1</strong>: Unite around a common pillar to fight poverty and inequality</td>
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<td><strong>Pillar 2</strong>: Active citizenry</td>
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<td><strong>Pillar 3</strong>: Inclusive economy</td>
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<td><strong>Pillar 4</strong>: Build capabilities</td>
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<td><strong>Pillar 5</strong>: A capable developmental state</td>
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<td><strong>Pillar 6</strong>: Leadership throughout society to work together to solve problems</td>
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Wide-ranging opportunities for business: NEMISA’s positioning and organisational model provides numerous opportunities for businesses to engage effectively within the e-skills space:

- There is high-level government engagement. This is integral to developing the e-skills agenda and ensuring that national and provincial policies, as well as all stakeholder decisions, reflect a common goal.
- Business corporate social investment (CSI) has an elevated impact that is aligned with national priorities. The elevated impact and the high-level government engagement allow businesses to position their individual CSI initiatives prominently to their stakeholder base, including the media.
- Businesses are given the opportunity to showcase their talents nationally, provincially and locally.
- Because of the inclusive national priority alignment within the NEMISA’s multi-stakeholder collaborative network, businesses are able to position their work within a local context and a developing country framework.
- The link that NEMISA has with universities through its CoLabs and research network means that business can also align new approaches using the benefits of an academic environment and a research function.

Most importantly, NEMISA provides an environment where CSI is part of a model where stakeholders work together – ‘doing with’ and not ‘doing for’. ♦️
**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 for 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 in social or economic situations, through the appropriate e-skills. (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 (digital literacy) | e-Literacy (digital 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.

**What is an e-skill?**

An e-skill means being able to use technology so you can actively participate in the world and move ahead.

- In your culture and community
- When you learn
- Through contacting governments online
- With your friends
- With your job and in business
- In your personal life

**Official South African definition (from the National e-Skills Plan of Action)**
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 the world in which ICT is a requirement for advancement in government, business, education and society in general.
Partners in NEMISA’s multi-stakeholder collaboration

Education

Government/South Africa

Civil society

Business

Global developmental partners

Kenya

Rwanda