

Newsletter Edition 26, May 2014

'E'nablement Week

17-21 November 2014 in Cape Town, South Africa

e-Skills Academic Conference 'Bringing the future to life'

The conference focuses on the strategic and efficient use of new ICTs, as well as the knowledge, skills, competencies and inventiveness of the workforce and citizens



Call for papers

Submit papers on research topics using evidence-based advice, services and programmes related to improving the abilities of teaching and learning, service delivery, business effectiveness, employment creation, job seekers, communities and families to live and work effectively with modern ICT capacity.

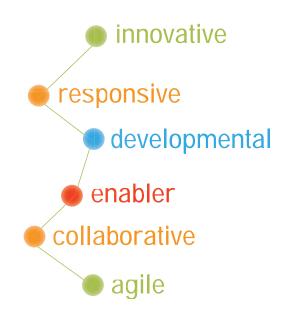
Seeking papers from:

- academics
- policy developers
- government service deliverers
- business
- civil society

See <u>e-SkillsConference.org</u> for more information on the conference.

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Building African e-Astuteness for more equitable prosperity

Unite around a common pillar to fight poverty and inequality, active citizenry, an inclusive economy, building capabilities, a capable developmental state and leadership working together to solve problems

'E'nablement Week

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he importance of a national integrated approach to building an e-astute South Africa is underlined by the fall in its global e-readiness ranking from 47th in 2007 to 70th in 2013. The 2014 'E'nablement Week will address this dramatic decline, which has serious implications for the delivery of the National Development Plan and the development of National e-Skills Plan of Action (NeSPA) 2015.

The academic conference

A key component of 'E'nablement Week is the academic conference hosted in association with international partner, the Informing Science Institute.

It is essential to develop a sound research and evaluation mechanism to guide impact assessments of various e-skills interventions against the National Development Plan 2030, SA Connect - South Africa's Broadband Strategy and the Post-Secondary Education White Paper.

The development of South Africa's e-skills and e-astuteness capacity building programme is a multidisciplinary activity crossing many academic specialities, existing government service delivery programmes and business activities. Hence, it is important to:

- Establish a recognised and focused evaluation and research pathway for e-skills related interests across academia, government, business and civil society to evaluate interventions.
- Develop sound evidence-based policy to impact South Africa's e-readiness which is underpinned by e-skills and e-astuteness capacity development.

ISI Journals

- Informing Science; The International Journal of an emerging transdiscipline - http://inform.nu
- Interdisciplinary Journal of Information, Knowledge and Management - http://ijikm.org
- Interdisciplinary Journal and e-Learning and Learning Objects - http://ijello.org
- International Journal of Doctoral Studies http://ijds.org
- Issues in Informing Science and Information Technology - http://iisit.org
- Journal of Information Technology Education -Research - http://jite.org
- Journal of Information Technology Education -Innovation and practise - http://jite.org
- Journal of Information Technology Education -Discussion cases - http://jite.org

The key principles of Informing Science Institute

- Free and simple access to information
- Connecting across disciplines
- Mentoring colleagues



More about the Informing Science institute The Informing Science Institute (ISI) was originally established by Eli Cohen and Betty Boyd 2001 and has grown into a formal organisation with a board of six governors in the US, Australia, and Canada.

The ISI defines Informing Science as 'the transdiscipline that studies all issues in informing clients. In recent decades, advances in information technologies magnify the impact and importance of this trans-discipline on many fields of study. Yet trans-disciplinary research conducted to date tends to be field specific and not well informed by the works conducted in other fields that are also within this same trans-discipline.' For more details see www.informingscience.us/icarus.

ISI has conducted 14 conferences (with an average of 120 refereed papers), published eight open source journals and 35 books. It also provides a formal mentoring programme for emerging authors.

ISI normally provides six reviewers for each paper and has more than 800 reviewers from more than 50 countries. The organisation currently has more than 1 560 fully refereed papers in its official publications and more than 400 additional conference papers. ISI has more than 891 current and lapsed members and a total of 4 316 academics engaged in its activities across the globe.

See e-SkillsConference.org for more information on the conference.

'E'nablement Week

17-21 November 2014

Cape Town, South Africa

'Building African e-astuteness for more equitable prosperity'

e-Skills Academic Conference - Bringing the future to life

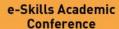
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Seeking papers from academics, policy developers, government service deliverers, business and civil society.

See e-SkillsConference.org for more information on the conference.



A platform to examine evidence-based approaches for praxis, policy development, service delivery and evaluation. Hosted in partnership with the Informing Science Institute.



A collaborative approach for assessing achievements and developing new approaches for the National e-Skills Plan of Action 2015 (NeSPA).

Thought Leaders Congress

Building an aggregation framework across business, government, education, civil society and international development partners to improve national e-readiness.



Developing a framework for FET approaches to e-skilling South Africa aligned to the needs of business, government, education and civil society.

Uni Connect - South Africa

Developing collaborative national and international university networks to build capabilities and knowledge for innovation.

The 'e'nablement week focuses on building South Africa's e-skills and e-astuteness through a national, integrated and collaborative approach.

The week's activities involve strategy, research and evaluation, policy development and delivery. The collaborative model builds and focuses effort across government, business, education and civil society. This ensures that there is multi-level input into raising South Africa's e-readiness rankings, moving the country towards wealth equity and an improved global competitiveness.



Join the e-skills revolution!

www.inesi.org.za



The Ikamva National e-Skills Institute (iNeSI) uses a globally-recognised collaborative model that allows stakeholders to sustainably meet South Africa's e-skilling objectives. These objectives are aligned to the national goals and the multi-stakeholder collaborative network reduces duplication and increases impact.



Multi-stakeholder collaboration forged with DOT and IBM to build e-astuteness for innovation

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Unite around a common pillar to fight poverty and inequality, active citizenry, an inclusive economy, building capabilities, a capable developmental state and leadership working together to solve problems

The Ikamva National e-Skills Institute (iNeSI) has formalised a partnership with the Digital Opportunity Trust (DOT) and IBM. This Memorandum of Understanding will deliver e-skills projects to the value of around R6.5m. This includes establishing an e-Skills CoLab at North West University. The aim is to build e-astuteness for innovation at a community level.

e-Astuteness for innovation

e-Astuteness is the capacity to continuously appropriate technology into personal work, education, business, social and family contexts for both personal and collective benefit. iNeSI is further expanding this notion of e-astuteness.

The organisation is building e-astuteness for innovation – where individuals adopt e-skills to take advantage of ICT in social and economic situations and use these e-skills for innovation. A case in point is the DOT programmes.

The programmes equip identified youth in vulnerable communities. The youth then facilitate e-skills programmes,

building e-astuteness with a focus on innovation and business skills.

MOU with the Digital Opportunity Trust

As part of the multi-stakeholder collaborative network, DOT's programmes are aligned to national objectives such as a focus on innovation.

SA Connect, the broadband policy, defines a broadband ecosystem of digital networks, services, application, content and devices that "provide an enabling platform for economic enterprise, active citizenship and social engagement, and innovation. Furthermore, the National Development Plan notes that "[i]nnovation and learning must become part of our culture".

spirit and technology and business skills.

Impacting on their communities

DOT's youth interns come from tertiary institutions. DOT equips them with facilitation, coaching, mentoring, technology and communication skills. The interns then facilitate DOT programmes in their own communities.

After completing their nine-month placement, DOT interns have also increased their own workforce readiness skills with real-world experience and through participating in ongoing professional development activities.

"e-Astuteness is the capacity to continuously appropriate technology into personal work, education, business, social and family contexts for both personal and collective benefit. The organisation is building e-astuteness for innovation – where individuals adopt e-skills to take advantage of ICT in social and economic situations and use these e-skills for innovation."

The DOT programmes

All DOT programmes are focused on empowering people to recognise opportunities and strengthen local economies. Furthermore, DOT has a fundamental principle of local operation.

Further collaboartion

Dot is working on pilot programmes with two iNeSI provincial CoLabs:

- Eastern Cape e-Skills CoLab: ICT for Rural Development
- Western Cape e-Skills CoLab: e-Inclusion and Social Innovation

What is the Digital Opportunity Trust?

DOT is an international social enterprise with



headquarters in Ottawa, Canada and local operations around the globe. DOT harnesses the youth. It turns young people – DOT interns – into leaders of change. These young interns facilitate technology, business and entrepreneurial learning experiences to people in their own communities.

The intention is provide vulnerable communities with the confidence to use technology for entrepreneurial, community, educational and personal development. Launched in 2002, DOT's programmes have reached over 800 000 people in communities and schools around the world, helping them to develop both an entrepreneurial



About IBM

IBM, listed on the New York Stock Exchange, manufactures ICT products and solutions and offers ICT services to a worldwide audience. Its focus areas include: computer systems, software, networking systems, storage devices and microelectronics.



Creating a mobile apps development environment for e-skills, e-astuteness and innovation

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Active citizenry, an inclusive economy, building capabilities, a capable developmental state and leadership working together to solve problems

"Mobile apps development contributes to

e-Skills are critical to South Africa's development. Previously, initiatives around adopting ICT focused purely on the rollout of infrastructure. However, people need to have the right skills to use these technologies otherwise the infrastructure isn't used effectively. Beyond international examples, this has been identified in the broadband policy, SA Connect, where one of its prongs (Digital Opportunity) is part of the push-pull mechanism that is essential to developing the broadband ecosystem.

Furthermore, South Africa remains in 70th place in the 2014 World Economic Forum e-readiness rankings. This is a drop from 2007 when SA was in 47th place. South Africa needs to raise its rankings to make the country globally competitive, to contribute to economic growth and to increase wealth equity among South Africans.

Mobile app development contributes to building e-astuteness for innovation

The Ikamva National e-Skills Institute (iNeSI) prioritises mobile app development as part of the national drive to e-skill South Africa. Mobile apps development contributes to building e-astuteness for innovation – the ability to appropriate technology for personal

and collective benefit and to use these e-skills for innovation.

The organisation has established mobile apps factories to serve as platforms for innovation for local benefit. This has been done in three provinces: Eastern Cape, Gauteng and Western Cape. iNeSI's work with mobile app development is aligned to national goals through:

building e-astuteness for innovation."

Cape e-Skills CoLab: ICT for at Walter Sisulu University) apps factory (the Makana A University) with ECITI, Rhoo



- Creating relevant content for the broadband ecosystem (as mentioned in the broadband policy, SA Connect)
- Developing a platform for entrepreneurship, developing e-skills and creating innovative solutions to national challenges.
- Stimulating the economy as mobile developers create income and businesses through selling the apps.
- Developing the necessary e-skills and impacting on education.
- Developing for local benefit.
- Allowing for stakeholder engagement.

Over 80 apps have been developed through various iNeSI initiatives. These initiatives include mobile app development workshops, hackathons and business incubation processes. Below is information about a mobile apps development workshop held during May.

Eastern Cape Mobile Android Development Workshop

A Mobile Android Development Workshop was run at the Eastern Cape Information Technology Initiative (ECITI)

premises in East London on 29 May 2014. It is the result of a collaboration between iNeSI and its provincial CoLab (Eastern

Cape e-Skills CoLab: ICT for Rural Development, based at Walter Sisulu University) through its associated mobile apps factory (the Makana Apps Factory, based at Rhodes University) with ECITI, Rhodes University, University Fort

Hare and the Eastern Cape Industrial Development Zone Science and Technology Park.

The mobile apps workshop conducted by Prof was Mamello Thinyane who is based at the University of Fort Hare. Participants, of which there were approximately 20, included representatives from local government. IT start-up companies attached to ECITI/IDZ and Walter Sisulu University staff and honours students from the School of Computing.

The five-hour workshop is part of a series of three. This first one was an introduction, looking at what is needed to develop mobile apps and how to close the gaps, among other topics. The workshop was free of charge. A prerequisite of the workshop was that participants needed to be able to develop with Java. Feedback from delegates has been very positive.



Highlights for iNeSI in 2013

Unite around a common pillar to fight poverty and inequality, active citizenry, an inclusive economy, building capabilities, a capable developmental state and leadership working together to solve problems

n the last nine months, the Department of Communications (DoC) has recorded a number of achievements including those around the Ikamva National e-Skills Institute (iNeSI). The following lists some of these achievements*.

Creating the integrated Ikamva National e-Skills Institute

The DoC finalised the merger of the e-Skills Institute (e-SI), the National Electronic Media Institute of South Africa (NEMISA) and the Institute for Software and Satellite Applications (ISSA), to form an integrated institute for e-skills. iNeSI was launched on 21 February 2014, with the keynote address provided by then Minister of National Planning, Trevor Manuel.

iNeSI supports the broadband policy, SA Connect, and the National Development Plan (NDP), among other national policies.

Towards an e-Readiness Programme and Fund

There have been two distinct points of progress:

- Discussions have been concluded with 12 key departments to finalise an audit of current approaches aimed at e-skills delivery.
- A Memorandum of Understanding has been signed between iNeSI and the Digital Opportunity Trust (an IBM implementation agency) to deliver specific e-skills projects to the value of approx R6.5m. This includes establishing of an e-Skills CoLab at North West University, Mafikeng campus.

Multi-stakeholder collaboration

The following notes the major progress points regarding multi-stakeholder collaboration:

- e-Skills is now part of the UNDP Country Plan of
- iNeSI formalised a relationship with the International Telecommunications Union and participated in the Global ICT Human Development Forum at WSIS. Geneva.
- iNeSI developed a Youth Programme in

- collaboration with Queensland University, Australia, along with IBM and the Digital Opportunities Trust (DOT) to elevate the opportunity for youth and ICT. it is aligned to SA Connect.
- There are 28 centres identified as smart community centres in collaboration with provincial and local stakeholders.

Teaching and learning

iNeSI has implemented a national e-skills curriculum and competency framework (NCCF) to guide continuous work at a provincial level. Furthermore, targeted e-skills courses have been developed in line with the NCCF. Twenty courses were developed across the national thematic areas and 3 450 learners were involved.

Research and innovation

The following notes progress made within research and innovation:

- Across five provinces, 39 research projects were completed.
- 13 PhD students are working on e-skills research.
- 50 journals/conference papers were finalised.
- 44 mobile applications were initiated/developed.

Advocacy and awareness

An e-Skills Communication Strategy has been developed. This guides the monthly newsletter and the advocacy and awareness campaigns the provinces.

Challenges

The report noted that iNeSI has funding challenges which

*Information from the Progress Report by departing Minister of Communications Yunus Carrim - 'Progress Report against the Minister's 20 August 2013 commitments to the Portfolio Committee on Communications (PCC) - progress up till 23 May 2014'.

Events

- Class of 2007 -08 Film and TV Production Recognition of Prior Learning (RPL) workshop: NEMISA students from the Class of 2007 -08 Film and TV Production Students are invited to take part in a Recognition of Prior Learning (RPL) workshop. It will take place from 23-27 June 2014 at the Gauteng e-Skills CoLab: Creative New Media Industries campus in Parktown (previously-named NEMISA Johannesburg campus). To get more information and to prepare for the programme, students need to come to a Qualification Update Meeting to discuss the RPL process on 7 June 2014 from 9:30 -11:30am. For more information or to
- confirm attendance, contact Bongiwe Kubheka on 011 484 4583 or send her an email at Bongiwek@nemisa.co.za.
- The third international conference on Technology, Leadership and Business (E-Leadership 2014) will be held in Nairobi, Kenya, from 3-5 July 2014. The theme is 'Innovative Leadership and Management in a Digital World'. It is being co-hosted by the Faculty of Engineering, Built Environment and Information Technology at the University of Pretoria, a strategic partner of the Ikamva National e-Skills Institute. For more information, go to www.e-leadership.org.



Required steps for e-voting - creating a knowledge base in a hyper connected world

Active citizenry, an inclusive economy, building capabilities, a capable developmental state and leadership working together to solve problems

he KZN e-Skills CoLab: e-Enablement for Effective Service Delivery focuses on the e-enablement of government. Among the areas that fall under this thematic focus is e-voting.

A paper 'e-Voting, India and the Philippines - A Comparative Analysis for Possible Adaptation in Africa' has been accepted as a chapter in the book, 'Emerging Issues and Prospects in African E-Government'. It was written by Surendra Thakur of the KZN CoLab.

The use of ICT in voting

E-voting denotes several different types of voting, including the electronic means of capturing a vote and the electronic means of counting votes. With the pervasive nature of ICT, it is not surprising that there is increased use in elections.

The paper notes that ICT is now used in:

- Back office Electoral Management Boards operational activities
- Communication for information dissemination such as election results and voter education
- Geographic Information Systems (GIS) to assist in demarcating voter districts

ICT has also helped in the following:

- Capturing data management systems to create, store, and update voter registration information
- To capture and tally votes (e-voting)
- Auditing to statistically analyse results for voter irregularities
- Predictive algorithms
- As a tool in observing elections through NetBooks, tablets, cameras, video cameras and digital voice recorders

Statistical trend towards adopting e-voting

While some countries have acknowledged and abandoned e-voting after adopting or piloting, others continue to adopt, pilot or trial e-voting. In general, the research notes that there is a statistical trend towards e-voting adoption.

The five countries who adopted and then revoked e-voting are: Australia (2009), Germany (2009), Ireland (2004), Netherlands (2008) and England (2008). Reasons for the turnaround include high costs, lack of transparency and public trust, and security issues.

"In general, the research notes that there is a statistical trend towards e-voting adoption."

The research looks at India, the world's second most populated country with 1.1 billion people, and the Philippines, the world's second largest archipelago with over 7000 islands and a population of 90 million people.

It is noted that both countries had largely positive elections, speeding up results with a consequent reduction in violence.

Abstract:

e-Voting, India and the Philippines – A Comparative Analysis for Possible Adaptation in Africa (By Thakur, S)

The paper contributes to the debate around e-voting by describing and discussing the experiences of two adopting countries, India and the Philippines, with careful, qualified comparison and to gain from their experience for possible adoption in Africa.

Africa often finds itself as the centre of attention with regards to elections. This regrettably relates to extreme violence, civil disobedience and fraudulent activities. Will e-voting be the panacea?

A challenge with electronic voting is that the voting machines are susceptible to sometimes undetectable changes by insiders, outsiders and hackers who may or may not have ulterior motives.

One of the latest incidents of hacking to take place was during the Zambian election in 2011 when the Electoral Commission of Zambia's website was hacked. It struck an embarrassing blow to democracy questioning the validity of the elections.

To see the full research paper, go to www.inesi.org. za/research-and-policy/.

Needed steps when adopting e-voting

The African continent can take key lessons from India and the Philippines' experiences. The research notes that countries seeking to adopt e-voting should:

- Go through a public transparent decision and consultative process.
- Undergo trials and outcomes must be clearly communicated.
- Undergo pilots before embarking on full elections.
- Endeavour to include a local technology partner.
- Get the code verified by a non-partisan company (called White Box Testing).
- Get the machines verified by another independent company in the presence of stakeholders (called Black Box Testing).
- Have built-in protection to prevent ballot stuffing.
- Preferably have no transmission of results during elections, and have unidirectional transmission post result.
- Have parallel audits on Election Day.
- Be inclusive and transparent.







Information on the Ikamva National e-Skills Institute

Unite around a common pillar to fight poverty and inequality, active citizenry, an inclusive economy, building capabilities, a capable developmental state and leadership working together to solve problems

What is the Ikamva National e-Skills Institute (iNeSI)?

iNeSI is a globally-recognised collaborative model that allows stakeholders to sustainably meet South Africa's e-skilling objectives.

These objectives are aligned to the new broadband policy, South Africa Connect, and the National Development Plan 2030, among other national and international goals.

iNeSI 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.

iNeSI focuses primarily on four components: research, teaching and learning, innovation and a monitoring and evaluation framework. iNeSI is a state-owned company and the result of a merger between three institutions: the e-Skills Institute, the National Electronic Media Institute of South Africa and the Institute for Satellite and Software Applications.

For more information about the Ikamva National e-Skills Institute, contact:

- Mymoena Sharif, mymoena@doc.gov.za
- Follow us on Twitter @iNeSI_
- Website: www.inesi.org.za

Join the iNeSI network

As a national catalyst for the development of e-skills in South Africa, the Ikamva National e-Skills Institute (iNeSI) calls on e-skills stakeholders to become involved in the integrated approach to e-skills development through our multi-stakeholder collaborative network.

Our value proposition

Have a look at the iNeSI value proposition on: www. inesi.org.za/media-and-publications.

Understanding the collaborative multi-stakeholder network See the explanation for the collaborative multistakeholder network: www.inesi.org.za/pages/ collaborative-network.php. This includes ways to engage with iNeSI.

Contacting iNeSI

Use the following link to get contact details for iNeSI: www.inesi.org.za/contact-us/.

iNeSI provincial CoLab thematic areas

Western Cape e-Skills CoLab: e-Inclusion and Social Innovation

KZN e-Skills CoLab: e-Enablement for Effective Service Delivery

Eastern Cape e-Skills CoLab: ICT for Rural Development

Gauteng e-Skills CoLab: Creative New Media Industries

Limpopo CoLab: Connected Health

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

NDP Priority Areas supported by NeSPA 2013

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

Pillar 2: Active citizenry

Pillar 3: Inclusive economy

Pillar 4: Build capabilities

Pillar 5: A capable developmental state

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



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



Taxonomy for e-skills

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



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.



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Partners in the Ikamva National e-Skills Institute multi-stakeholder collaboration









Education























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.