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# **IT AND PROFESSIONALISM IN DEVELOPING COUNTRIES – FOCUS ON AFRICA**

Presented to: WCC 2008

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# Agenda

- Introduction
  - A perspective of Africa
  - ICT in Africa
- IT Education & Skills in Africa
- ICT Hubs
- IT Professionalism in South Africa
- Recommendations



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# INTRODUCTION



# Perspective on Africa

- ❑ Very little research on IT in Africa
  - ❑ Almost all related to digital divide issues
- ❑ E-government very popular
- ❑ IT development mostly imported





# Africa Populations

<b>Country</b>	<b>Population</b>	<b>Percentage of World Population</b>
World	6,671,226,000	
China	1,323,436,000	19.84%
India	1,131,982,000	16.97%
USA	303,902,495	4.55%
Indonesia	231,627,000	3.47%
Brazil	186,576,380	2.80%
Africa (53 countries)	922,000,000	13.82%
South Africa	47,850,700	0.72 %
Nigeria	148,093,000	2.22%



# GDP per country 2006

1. South Africa ... \$606.4 billion (up 8% from 2005)
2. Algeria ... \$262.2 billion (up 8.5%)
3. Nigeria ... \$181.8 billion (up 10.2%)
4. Morocco ... \$150.8 billion (up 4.8%)
5. Sudan ... \$98.8 billion (up 11.2%)
6. Tunisia ... \$91.4 billion (up 7.4%)
7. Ethiopia ... \$78.4 billion (up 12%)
8. Ghana ... \$59.4 billion (up 9.1%)
9. Angola ... \$53.9 billion (up 24.3%)
10. Democratic Republic of Congo ... \$50.4 billion (up 9.7%)



# The World Bank says ....

*“Information and Communications Technologies (ICT) have now become an integral part and key enabler of today's development agenda”.*



# ICT very relevant to Africa

- ❑ As an economic enabler
  - ❑ Development of communities
  - ❑ Access to resources – e-Government
- ❑ ICT Skills as a marketable resource
  - ❑ Move to knowledge Economy
  - ❑ Increase earnings capacity







# Southern African Development Community

- SADC Need a coherent ICT policy
  - Sustainable economic development
  - Bridges digital divide
- ICT infrastructure foundation for African  
“Renaissance”
  - Pervasive
  - Affordable
  - Reliable





# SADC concerns & notes

- ❑ Capacity limitations
  - ❑ In particular shortage of IT Skills
- ❑ Lack of regional policy
- ❑ Harnessing ICT helps improve lives





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# ICT EDUCATION & SKILLS IN AFRICA



# IT Education in Africa

- ❑ Quality education in some centres
  - ❑ Makerere University, Kampala
  - ❑ BCS Accredited Uni's in South Africa
- ❑ Possibly too many universities
- ❑ Quality is inconsistent





# The Skills shortage conundrum



ICT Skills needed



We need jobs!



- ❑ 1,400 engineers graduate per year
  - ❑ Half register as practicing professionals
- ❑ JIPSA
  - ❑ 2,400 engineers p.a.
  - ❑ 37,565 ICT workers





# Against this backdrop

- ❑ Declining enrolments in ICT
  - ❑ Few school leavers with good enough grades
  - ❑ No mechanisms for identifying talent
  - ❑ Lack of ICT teachers
  - ❑ Little knowledge about ICT careers
- ❑ Comptia report
  - ❑ More skills gaps in emerging markets
  - ❑ Increasing IT Headcounts
  - ❑ ICT skills the biggest challenge
  - ❑ Industry certifications instead of degrees



# South Africa

- ❑ Lagging behind it's competitors in the East
- ❑ Skills the biggest challenge
- ❑ Most government sponsored programs are at entry level
- ❑ ICT Hubs growing in poularity
  - ❑ Innovation Hub – pioneers, inventors, entrepreneurs, free thinkers
  - ❑ Cape IT Initiative & SmartXchange
    - ❑ Cluster development
    - ❑ Incubation





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# IT PROFESSIONALISM IN SOUTH AFRICA



# The IT Profession

- ❑ Three groups (Peter Denning)
  - ❑ IT Specific disciplines
    - ❑ Software engineering etc.
  - ❑ IT Intensive disciplines
    - ❑ Banking and Financial
  - ❑ IT Supportive disciplines
    - ❑ Help desk, IT Trainers



## BCS Definition of an IT Professional

*A fully established IT professional is a practitioner who has specific skills rooted in a broad base and appropriate qualifications, belongs to a regulated body, undergoes continuous development, operates to a code of conduct and recognises personal accountability.*



# Skills - South Africa

- Have the Skills, but not in numbers required
- IT Consultancy most exported (to other African countries)
- We need to become recognised globally
  - Professional qualification



# Computer Society South Africa

- 2,000 members
    - 15% professional grade
    - Code of ethics and disciplinary procedure for all members
  - Launched CPEP 2008
    - Adopted ACS System
      - Online
      - Good fit
  - International Professional Partnership Programme (IP3)
    - CSSA worked on Task Force
    - ACS Accredited for IITP – CSSA accreditation in 2009
    - Move into Africa
-



# Recommendations for Africa

- Societies & Government organizations
    - Adopt and adapt skills frameworks
  - IT Professional status mandated by government
    - Funding for this is essential
    - Aid monies should be used for this not just for DD issues
  - IFIP & IP3 must get message out
    - Witfor
    - Set up African Forum
    - Find early adopters
    - Ensure professional practice is embedded in constitutions
    - Make online offerings (e.g. ACS CPeP) available cost effectively
-



# Conclusion

- ❑ Africa must stand up and be counted
- ❑ Must play on world stage
- ❑ ICT is a true and enduring creator of wealth





# Thanks

□ To join a group of Professionals:

[www.ipthree.org](http://www.ipthree.org)

□ Computer Society South Africa

[www.cssa.org.za](http://www.cssa.org.za)

□ To contact me

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