ICT IMPERATIVES
&
THE DEVELOPMENT OF AFRICA

A TOTAL MAN CONCEPT (TMC)
PG LECTURE

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Vision of Covenant University

To be a leading World-Class Christian Mission University, committed to raising a new generation of leaders in all fields of Human endeavour.
Mission of Covenant University

To create knowledge and restore the dignity of the black man via a Human Development Total Man Concept driven curriculum employing innovative, leading-edge teaching and learning methods, research and professional services that promote integrated, life-applicable, life-transforming education, relevant to the context of Science, Technology and Human Capacity Building.
ICT Defined

Information and Communication Technologies

• Often used as an extended synonym for Information Technology
• “Technologies that provide access to information through telecommunications. ... This includes the internet, wireless networks, cell phones, and other communication mediums.” [a]

Technologies required for the effective communication of information.

ICT Defined

• Information – Content
• Communication – Conduit
• Technology – Means and Methods
Information

- Information – Content:
  - Text: .txt, .pdf, .docx, ...
  - Audio: .wav, .mp3, .aac, ...
  - AudioVisual: .wmv, .mpg, .mp4, ...
  - et cetera

ICT Imperatives for the Development of Africa:
Communication Technologies

Communication channel – *Conduit*:

- **Wired modes:**
  - *Copper wire*
  - *Twisted-pair cable,*
  - *Coaxial cables,*
  - *Optical Fibre*
Communication Technologies:

• Wireless modes:
  – Radio Frequency communication
  – Microwave communication
  – Infrared communication

• Hybrid mode:
  – Combination of both wired and wireless modes.
  – e.g. using VSAT as last mile solution for optical fibre communication of signals received from a microwave link.

Technologies

Means and Method of communicating desired content (information) over a suitable conduit (communication channel).
## ICT Timeline

<table>
<thead>
<tr>
<th>Event Date</th>
<th>Event Title</th>
</tr>
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<tbody>
<tr>
<td>1st Jan, 1604</td>
<td>Mechanical calculators are manufactured for sale</td>
</tr>
<tr>
<td>1st Jan, 1801</td>
<td>Punch cards used for programming a machine</td>
</tr>
<tr>
<td>1st Jan, 1820</td>
<td>Charles Babbage starts his research</td>
</tr>
<tr>
<td>2nd Jan, 1822</td>
<td>Babbage's Difference Machine</td>
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</table>

Source: [http://www.timetoast.com/timelines/27704](http://www.timetoast.com/timelines/27704)
ICT Development Index (IDI)

• Published by United Nations ITU
• Based on internationally agreed ICT indicators
• Used for measurement of digital divide
• The 11 *agreed* ICT indicators are are grouped in three clusters:
  – Access / Use / Skills
• Access – *ICT Readiness*
  – Fixed-telephony, mobile telephony, international Internet bandwidth, households with computers, and households with Internet.
• USE – *ICT Intensity and Usage*
  – Internet users, fixed (wired)-broadband, and mobile broadband.
• Skills – *Capacity*
  – adult literacy, gross secondary enrolment and gross tertiary enrolment
# IDI Top 30 as at 2011

<table>
<thead>
<tr>
<th>Rank</th>
<th>Country</th>
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<tbody>
<tr>
<td>1</td>
<td>South Korea</td>
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</table>

ICT Imperatives \{essentials\}

• These essentials are presented as modules at the Academy of ICT Essentials for Government Leaders \{http://www.unapcict.org/\}.

• The academy was set up by UN Asian Pacific Training Centre for ICT4D

• 53 Member states (9 Associate members)
  – UK/France/China/Japan/Australia/India/Korea/Russia...
  – Most are in the \textbf{Top 30 IDI list}

\textit{ICT Imperatives for the Development of Africa:}
ICT Imperative Modules

ICT Imperatives for the Development of Africa

1. The Linkage between ICT Applications and Meaningful Development
2. ICT for Development Policy, Process and Governance
3. e-Government Applications
4. ICT Trends for Government Leaders
5. Internet Governance
6. Network and Information Security and Privacy
7. ICT Project Management
8. Options for Funding ICT for Development
9. ICT for Disaster Risk Management
10. ICT, Climate Change and Green Growth
11. Social Media for Development
Modules’ Objectives

• Provide a comprehensive ICT4D programme catered to policymakers and government leaders while ensuring the content will be mostly non-technical in nature;

• Develop the content in a modular format to maximize flexibility to meet the needs of context-specific learning situations;

• Develop the content for delivery over a variety of multimedia platforms to maximize learning and minimize job disruption for the participants;

• Disseminate the content widely by ensuring that the course materials are developed as open educational resources, whereby trainers in developing countries can take part in the training and then have access to the resources to guide others through the training; and

• Promote cooperation by encouraging the utilization of the developed open educational resources to be used for ICT4D training of policymakers and government officials in other developing regions, including Africa and Latin America
Conclusion

• The ICT imperatives necessary for the development of Africa are as given in the modules above

• Since the development of any region is essentially of function of the effectiveness of its leadership

• If every body in leadership position will become proficient in ALL the eleven modules, they cannot but transform the African landscape.

ICT Imperatives for the Development of Africa:
THANK YOU!