Maximizing ICT Provisions for Efficient Performance

Presentation at the 2012/2013 Induction Programme for Academic and Non-Academic Staff

AAA. Atayero, PhD
Deputy Vice Chancellor (Academic)
Covenant University, Ota

16th Nov. 2012
Agenda

- Preamble
  - Vision and Mission of Covenant
  - 1st Decade in Retrospect
  - Mandate for 2nd Decade: 1-of-10-in-10

- Definitions

- Maximizing ICT Provisions:
  - 1. As a subject
  - 2. As a support tool
  - 3. As an administrative tool

- Conclusion
Vision & Mission of CU

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

Mission:
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.

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1st Decade in Retrospect:

1. Full accreditation in ALL academic programmes
2. Over 69 Awards of Excellence
3. Numerous Linkages: Academic & Industrial
4. Disciplined, God-fearing, well-trained students
5. Established Employer Reputation
6. Graduates of CU excel in PG Studies Globally
7. High quality Faculty & Staff

...
Mandate for 2\textsuperscript{nd} Decade

\textit{Become one of the top ten Universities in the world in the next ten years. (1–of–10–in–10)}

- Most WCU have been around for centuries
- Studies suggest the younger the better, if:
  - Academic talent
  - Financial Resources
  - Responsible governance:
    - Autonomy
    - Academic freedom
Relatively new universities have the capacity for growing into top quality research institutions ‘within the first 2 to 3 decades’ of their existence.

Ranking Parameters

- International Faculty (IF)
- International Students (IS)
- Citations Per Faculty (CPF)
- Faculty/Student Ratio (FSR)
- Academic Reputation (AR)
- Employer Reputation (ER)
- Peer Review (PR)
ICT: What is …

Information and Communication Technologies

- “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.*

Information:

Information – Content:

- **Text**: `.txt`, `.pdf`, `.docx`, ...
- **Audio**: `.wav`, `.mp3`, `.aac`, ...
- **Video**: `.wmv`, `.mpg`, `.mp4`, ...
- **Hybrid**: *e.g.* Scrolling text on video broadcast
Communication:

Communication channel – Conduit:

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

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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.

<table>
<thead>
<tr>
<th>Mode</th>
<th>Wavelength (nm–mm)</th>
<th>Frequency (GHz–THz)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Infrared</td>
<td>750–1</td>
<td>400–300</td>
</tr>
<tr>
<td>Microwave</td>
<td>1–1</td>
<td>300–300</td>
</tr>
<tr>
<td>Radio</td>
<td>1–100,000</td>
<td>300–3</td>
</tr>
</tbody>
</table>

**Technologies**

*Means and Method of communicating desired content (information) over a suitable conduit (communication channel).*
Maximizing ICT Provisions:

In the CU context maximization of ICT provisions *viz-a-viz* her *vision* and *Mandate 1-of-10-in-10* can occur in the following areas:

- As a subject in itself
- As a support tool for other subjects
- As an administrative tool
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Maximizing ICT Provisions:

1. As a subject:

- For ICT-related courses in Covenant:
  - Curriculum review in line with WCU best practices e.g. MIT.
  - Adopt the OCW concept to increase visibility of courses
  - Develop Audio/Video version of Courses
  - Emphasize upload of supplementary resources
  - Emulate other instructional paradigms common to the top 10 WCUs
Maximizing ICT Provisions:  

2. As a support tool for subjects:

- Computer-based Learning:
  - E-Learning:
    - Computer-based training (PC-based)
    - Internet | Web-based training (IBT | WBT)
    - Online distance learning
    - Classroom 2.0 - Multi-user virtual learning
    - E-Learning 2.0 - social learning using social software
  - E-Learning Tools:
    - Blackboard Inc.™, Moodle™, |CU-proprietary sw
Maximizing ICT Provisions: E-Learning Services: Blackboard Inc. (tm):

- >20 million users daily
- Has blended or fully online options
- Available on Six platforms:
  - Blackboard Learn,
  - Blackboard Collaborate,
  - Blackboard Mobile,
  - Blackboard Connect,
  - Blackboard Transact,
  - Blackboard Analytics.
Maximizing ICT Provisions:

**E-Learning Services: Moodle\(^{\text{tm}}\):**

- Free and Open Source Course Management System.
- Provides blended learning opportunities
- Platforms for distance learning courses
- Plenty of support materials
- Available at: [http://moodle.org](http://moodle.org)
Maximizing ICT Provisions: E-Learning Services:

CU Courseware\(^{\text{tm}}\):

- Developed by CU Faculty|Students
- Totally FOSS-Based
- To be Licensed under (cc):
  - Attribution
  - Non-commercial
  - Share Alike

16\(^{\text{th}}\) Nov. 2012
Maximizing ICT Provisions: 3a. As Administrative Tool:

Office Automation: **e-Memo etc.**

- **CU FOSS Virtual Office:**
  - Environment for organisations to perform similar features they would perform in an ideal office
  - Platform for corporate bodies to collaborate with mobile workers
  - Free software geared towards collaboration within organisations
  - Can be *tweaked* to fit specific corporate needs
  - Developed in CU by CU students.
Maximizing ICT Provisions: Features of CU Virtual Office

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Maximizing ICT Provisions: FOSS Realisation of CU Virtual Office

VOIP PHONE(S) e.g. 3CX, X-Lite, Flash/Web Phone
VOIP-PSTN (Oktell SIP-GSM Gateway)
EMAIL (Roundcube / Mercury mail)
VIDEO CONFERENCE (Big Blue Button)
FORUM
FILE STORAGE
BULLETIN
CONTACT MANAGEMENT
EVENT MANAGEMENT/CALENDAR
PROJECT MANAGEMENT (Project Pier)
INSTANT MESSAGING
REALTIME WORD PROCESSOR (Etherpad lite)

http://drupal.org

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Maximizing ICT Provisions: 3b. Cloud Computing: Google™, Dropbox™, Box™

- **Google Drive:**
  - Currently used in the VC’s Office
  - Google Doc: Text, Spreadsheet, etc

- **Box | Dropbox:**
  - For collaborative work
  - Document Storage
  - File Synchronization
## Appendix:

### Systems Provisions

<table>
<thead>
<tr>
<th>S/N</th>
<th>Items</th>
<th>Description</th>
<th>Locations</th>
<th>QTY</th>
<th>Status</th>
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<tbody>
<tr>
<td>1</td>
<td>Desktop Systems</td>
<td>Computer Lab. Systems</td>
<td>Chemical Energy Lab</td>
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<tr>
<td>2</td>
<td>Desktop Systems</td>
<td>&quot;</td>
<td>ARCHITECTURE LAB</td>
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<tr>
<td>3</td>
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<td>CDS</td>
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<tr>
<td>5</td>
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<tr>
<td>6</td>
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<tr>
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<tr>
<td>8</td>
<td>Desktop Systems</td>
<td>&quot;</td>
<td>BUILDING LAB</td>
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<tr>
<td>9</td>
<td>Desktop Systems</td>
<td>&quot;</td>
<td>ICT</td>
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<tr>
<td>10</td>
<td>Laptops/Desksops</td>
<td>Computer Lab. Systems/Office use</td>
<td>LIBRARY</td>
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<tr>
<td>11</td>
<td>Laptops</td>
<td>Training/Office use</td>
<td>CIS SOFTWARE ENGINEERING</td>
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<tr>
<td>12</td>
<td>Desktop Systems</td>
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<td>CHAPELE ESTIMATE</td>
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<td>13</td>
<td>Desktop Systems</td>
<td>Office Use</td>
<td>EDS ESTIMATE</td>
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16th Nov. 2012
## Appendix:

### Summary of Systems Provision in CU:

<table>
<thead>
<tr>
<th></th>
<th>Systems</th>
<th>Lab Type</th>
<th>Lab Name</th>
<th>Quantity</th>
<th>Status</th>
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<td>Desktop Systems</td>
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<tr>
<td>16</td>
<td>Desktop Systems</td>
<td>Office Use</td>
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<td><strong>TOTAL</strong></td>
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<td><strong>1017</strong></td>
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</table>
Conclusion:

Following the steps presented will help in Maximizing ICT provisions for efficient performance of Faculty, Staff, Students and Management of Covenant University.
Thank You!