

Harnessing the Mobile Explosion for Sustainable Social & Economic Development



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Issues

- The Technology & Value Chain of Mobiles
- Mobiles as service platforms
 - Explosive, Disruptive & Constructive
- Multidisciplinary Research
 - The new frontier
 - Innovation & Creativity Shift
- Improving the Socio-economic impact
 - Strategies for sustainability
 - Enabling Policies

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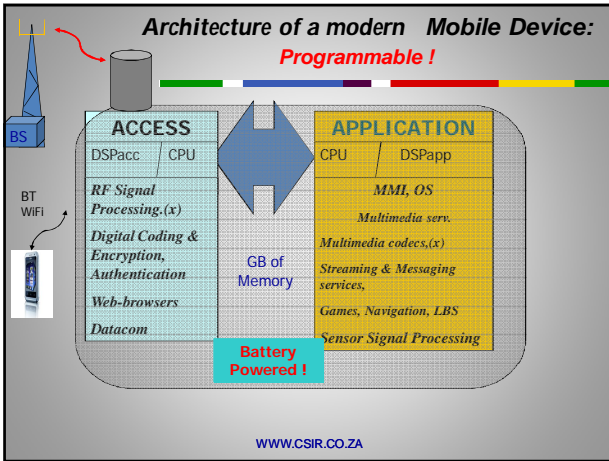


The Mobile Phone



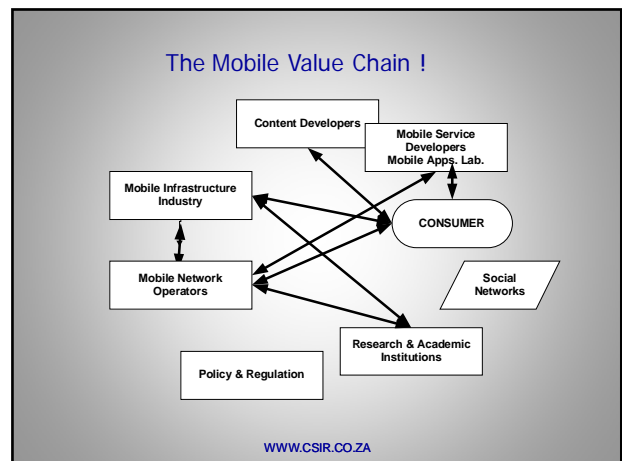
- Is No Longer a Voice only Communications Device.
- A formidable computer
 - Carried by ~ > 4,500,000,000(ITU2009)
- Calendar, wake-up timer, text messaging, Camera, FM Radio, Music Player, Web Access, File transfer (BT), Positioning - GPS

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- ### Mobiles as Service Platforms
- High Penetration > 4.5 billion users (ITU)
 - Price/Performance vs PCs
 - Coverage >95 % in many areas of the world.
 - Time & Geo unlimited service
 - Programmable :
 - Local language adaptation
 - Sensor Integration – Eye/ear/sensor in every corner.
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- ### Innovative Mobile Services
- Improving health, banking/payment, education and marketing of goods & services.
 - M-Agr., M-Health, M-Banking, M-EDU, M-AC ...
 - Mobile & ICT constitute part of important utility services. – sensus, voting, payment...
 - Employment creation & Vehicle of economic development
 - ICT4D, Mobile4D, W3C_Mobile
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Technology adapting to the Social & Cultural Context or Viceversa

Ethiopic Alphabets

A Mobile Phone with Ethiopic Keymat

SMS in Local Languages Made Possible !

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Multidisciplinary Research

- Science without humanity is lame; Humanity without science is blind.
 - ♦ Albert Einstein.
- Better socio-economic competitive model !
 - ♦ Call of the earth & users Sustainability **
- Security of mobile devices & services vs Usability.raising vs lowering the barrier **
- Strategies for HCD and enabling policy for sustainable economic development. ...WB_Mlab

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Improved Socio-economic Competitive Model

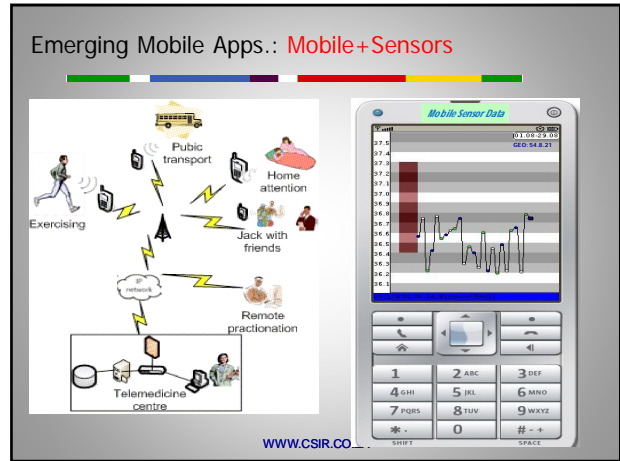
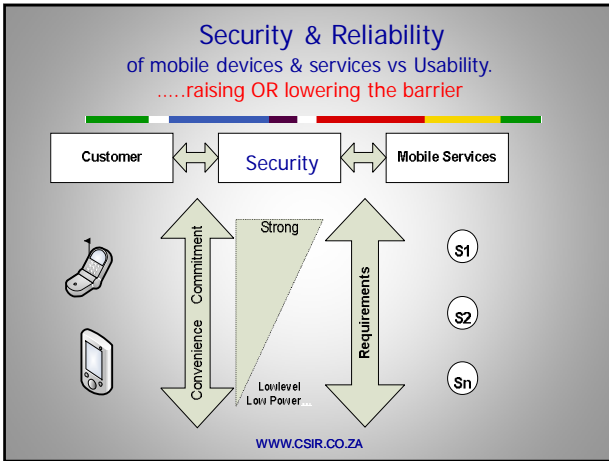
- Network Operators working in Silos
 - ♦ No-longer cost effective & environmentally sustainable.
- Mobile Broadband (3-4G) Model
 - ♦ Sharing Network but still Competitive
 - ♦ Lower CAPEX & OPEX => low service cost
 - ♦ Lower Energy Requirement
 - ♦ Environmental Sustainability

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Case of two EU Operators Network Sharing Agreement

- Network Operators T-Mobile & 3-UK
- CAPEX & OPEX reduction
 - ♦ ~ 2 Billion Euros =>
- Reduction in BS count
 - ♦ ~ 5000 BS sites =>
- Estimated 30 % Reduction in Energy Consumption.www.mobileurope.co.uk...
- Network sharing in dev. Countries ?? .. India

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Emerging Mobile & Sensors Apps.

(GPS, Accelerometer, Camera, Microphone,.....)

- Intelligent data collection and Mobile Intelligent Systems R&D at the MIT Media Lab.
 - CDR data from mobile operators used to analyze town planning and traffic patterns.
- Mobile & Embeded Networked Sensors, University of California Los Angeles, UCLA, CENS.AC.COM.
 - The citizen scientist, health, epidemiology & environment monitoring...

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Collaborative Research Network

- Develop multidisciplinary research around mobiles as service platforms. - WISER/CSIR/HSRC
- Strategies for research & HCD
 - Multi-disciplinary Research => **Input to Innovate** Mobile Platforms & Software Development.
- Become partners for affordable, secure local content and mobile service research =>
 - Sustainable service development & provision
 - Contribution to knowledge economy

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Conclusion



- Public & private research enterprise partnership
 - Multi-disciplinary research networks
 - Sources of new Innovation & Creativity.
- Work for a win-win long-term enabling policy & Regulatory frameworks.
- We need a change – **“Yes We Can!”**
 - Strategy for HCD in Innovative Mobile Service Development
- Improve Socio-Economic Impact of mobiles as Service Platforms.

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The Future is Looking Back at Us



Thank You!

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