

**Enabling Library & Information Services Using Mobile Wireless Platforms**  
**Challenges & Opportunities**

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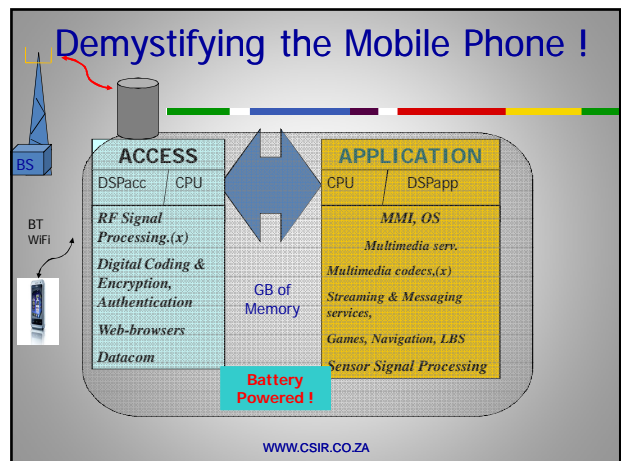


**The Mobile Phone**  
**A Paradigm Shift !**



- Is No Longer a Voice only Communications Device : ..... **A Platform for Services !**
- 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 / Cell-ID

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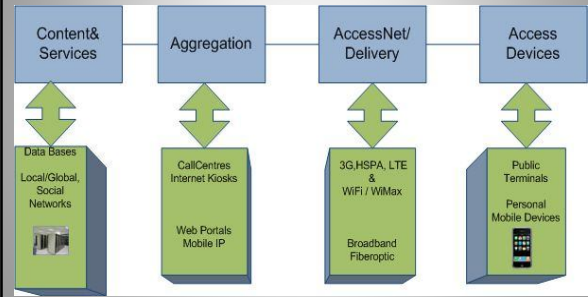


## Mobiles as Service Platforms

- High Network Penetration > 90 % World Population.
  - Price/Performance vs PCs
- Time & Geo unlimited service
  - Location based info.
- Programmable : Local language adaptation
- Sensor Integration – Eye/ear/sensor in every corner.

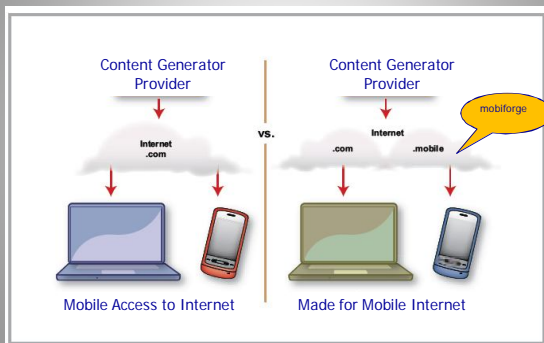
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## Overview of Mobile Access



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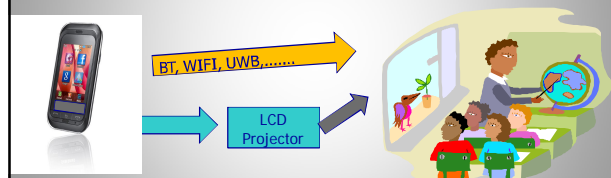
## Mobile Internet Content Models



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## Challenges II

- Mobile Multimedia Rendering Mechanisms
  - Short range radio technologies



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## Content & Service Adaptation to Local Context



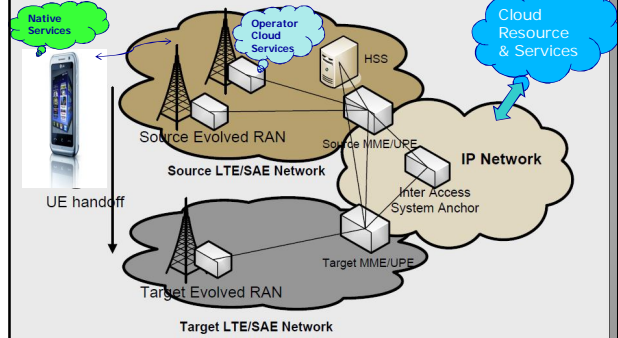
A Mobile Phone with Ethiopic Keypad



Content in Local Languages Made Possible !

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## Mobile Cloud Computing: Operator & Cloud Services



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## The Curse of Device Variability



### Challenges

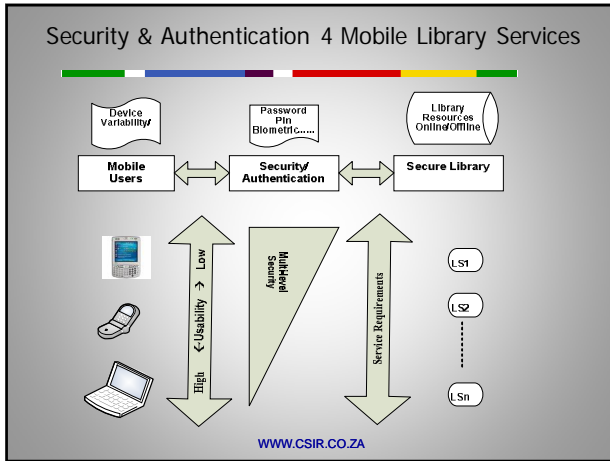
- Different Capabilities,
- Operating systems
- Mobile Web Browsers
- Radio Access

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## Challenges I

- Broadband access bandwidth
  - African Broadband Penetration ~ 3.2 %
  - Submarine Cables & new tariffs ~ 6.8 %
- Mobile/Wireless Broadband :
  - Quality & Capacity Issues
  - Mobile Broadband technology Choice !
  - Affordability
    - Network, Content & Service provider Ecosystem !
    - Regulatory Incentives : Spectrum policy !

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- ### Possible Library Services and Products
- Discovery services –Text-alerting
  - Available services - Audio tours
  - Location Based Services – Context awareness
  - Remote Access / Booking / Download,....
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- ### In Conclusion:
- ICT is not only about communication infrastructure & devices, but also of the value: information and services, that the network delivers to people with ease & affordable manner.
  - Discovery, Access & Rendering
  - Localized & Organized Content
  - The opportunities outway the challenges !
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