



Makerere University

"We Build for the Future"

Faculty of Computing & Information Technology

W3C Workshop on the Role Mobile Technology in Fostering Social Development

Educating the Architects of the Mobile Economy: **A Program for Mobile Computing And Applications Software Development**

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Fostering Social Development Through Education on MTS

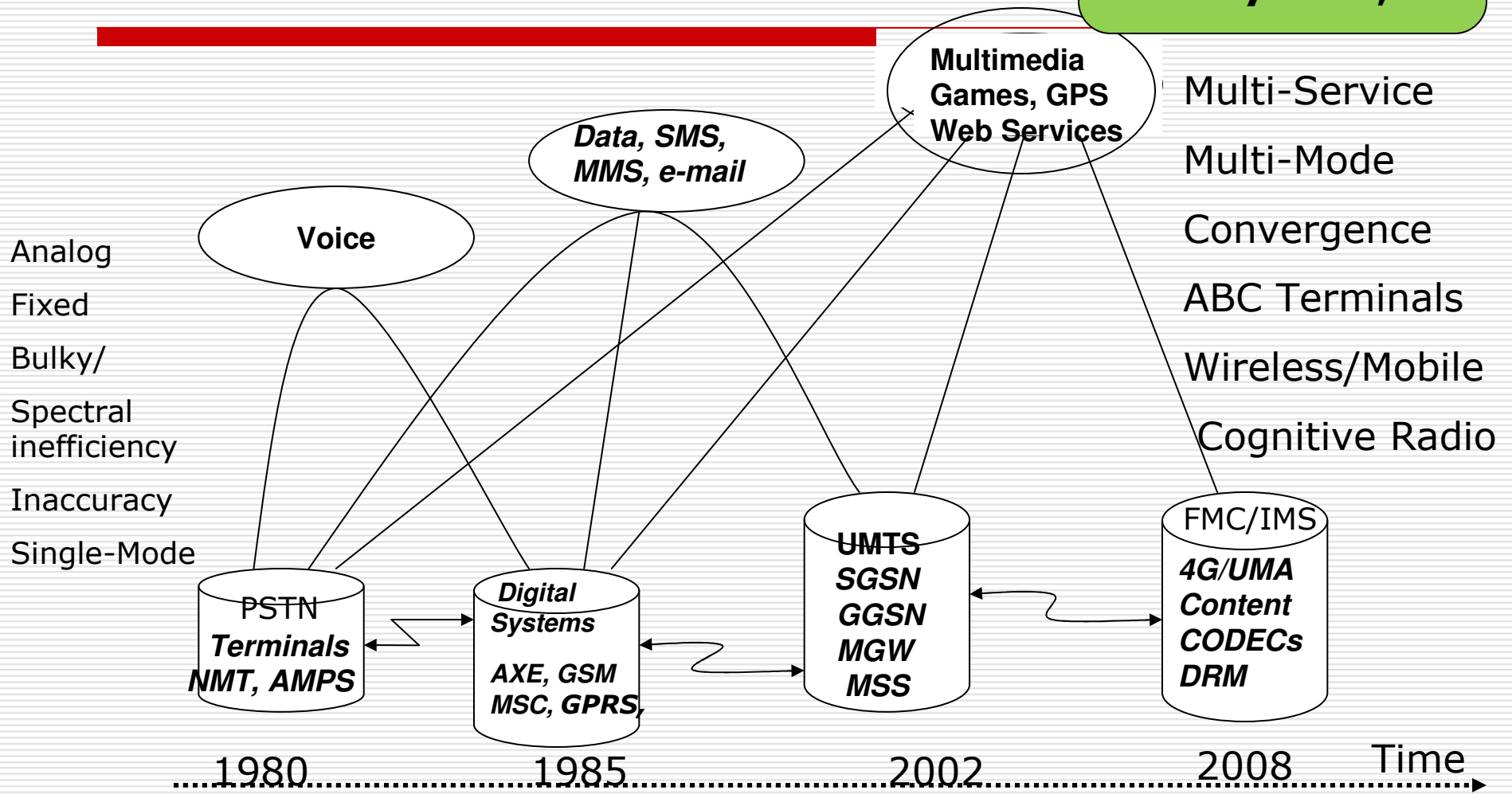
- ❑ Providing a structured education in Mobile Technology & Services (MTS)
- ❑ Develop the needed competence for the technology & service market.
- ❑ Emergence of a Local Mobile Content & Service Provider Sector
 - **Employment Creation !**
- ❑ Social development & economic development are interrelated.

Current Mobile Technologies & Services: GSM/GPRS/EDGE/3G/ & Mobile TV

- ❑ Operators are Comfortable with Voice & SMS services and revenues.
- ❑ Reasons NOT to Migrate to NG mobile Services.
 - Investment cost
 - Unavailability of mobile Content & Innovative data services.
 - Low subscriber base for mobile web & data services:
 - Usability & Affordability.
- ❑ Reluctance to support 3rd party content & service provider sector to grow: Fear of revenue sharing.
- ❑ Innovations on existing services: Context awareness.

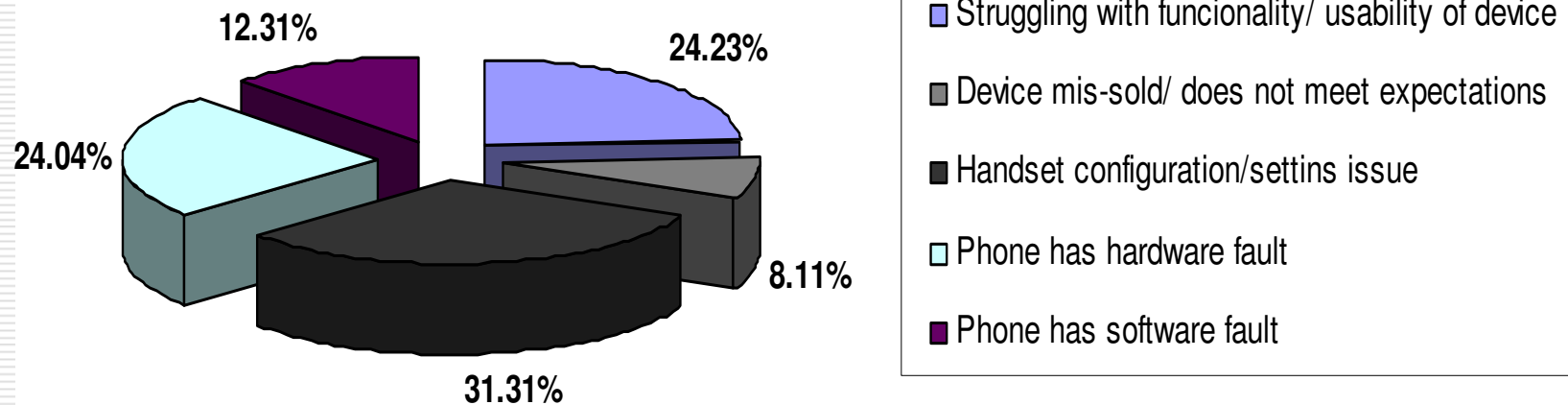
Mobile Technology a Perspective

**M-Health
M-Learning
M-Payment,...**



Misunderstood 3G phones cost both Subscribers and Mobile Industry, a UK study ?

Source WDSGlobal, UK, 2006



What will the figures be for Developin Region Context ?

"Mobile Computing and Apps. Software Development !"

How to address Important Growth Factors

- ❑ For Mobile Web Services to Foster Social development we need to Develop Capacity and Competence in:
- ❑ Improving the Quality and increase number of Relevant Mobile Data Services.
- ❑ Improving the usability and context awareness of Mobile Data Services.
- ❑ The role of Educational and Research Institutes in Developing countries ?

Short Term Solutions

CTIT Addis Ababa

- Short Seminars & Workshops in Mobile Communication Technology & Services
 - Mobile VAS seminars and workshops.
 - Regulatory & Policy issues
- Short courses in Mobile Applications Programming: Students projects.
- Established Mobile Programming Lab.
- Continuity & Sustainability Problems

Long Term Solution

The MCASD Program: Motivations

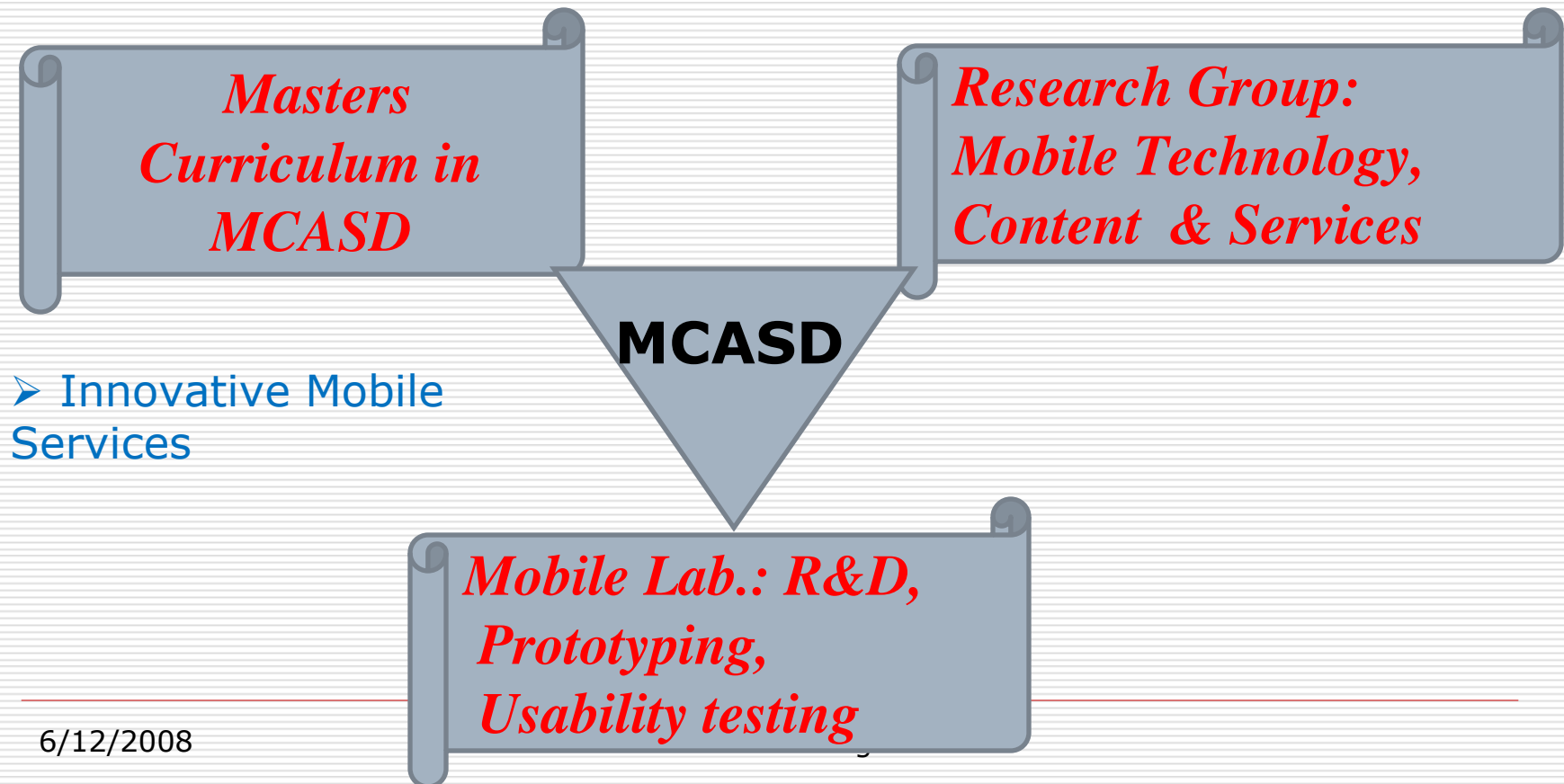
- ❑ ***Mobile is a Mass Market and an Enabler!***
- ❑ **Harnessing mobile technology explosion in Dev. Regions:**
 - ❖ ***Large no. of Mobile Application Software Developers.***
 - ❑ ***Mobile Content & Web-service Developers.***
 - ❖ ***Mobile Usability & Research Lab***
 - ***Mobile Web & Social development***
 - ❖ ***Emergence of a Mobile Service & Content Provider Sector: Entrepreneurial Aspect.***

The Masters Program - MCASD

(Mobile computing and Application Software Development)

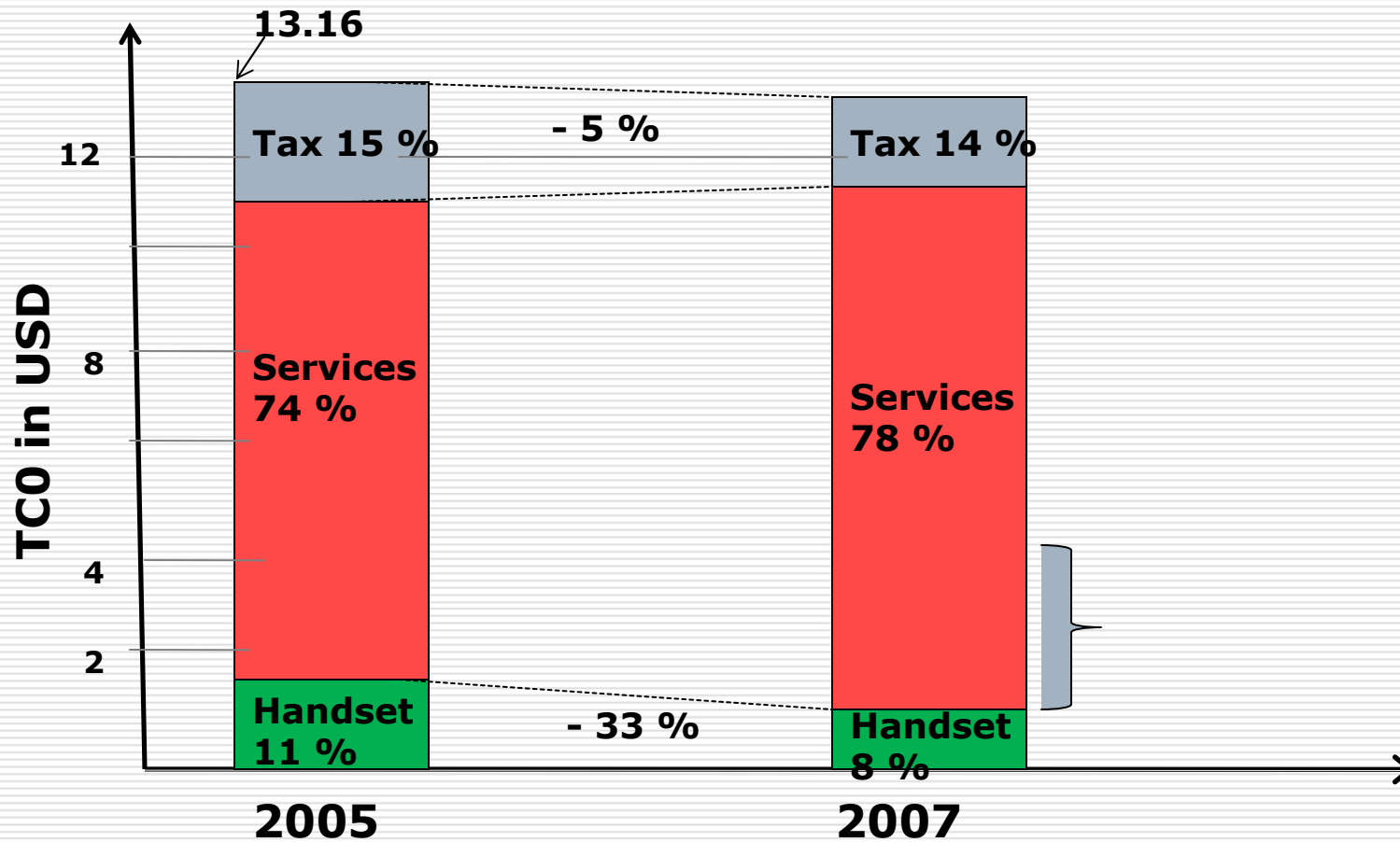
□ *Educating the Architects of the Mobile Economy !*

Three Pillars



6/12/2008

Average TCO (Total cost of ownership) for the lowest income group
(80 Countries in Developing regions included in the data)
Source: Nokia new horizons 1/2008/ www.nokia.com/NGM



MCASD Challenges :

- University Curriculum Approval Process
 - Mobile Lab space and equipment- Nokia donation!
 - More time for research, prototyping & field testing of new mobile services.
 - Expected large intake – Popular course
 - University Policy on IPRs? on Progress.
- Collaborative research:
 - UCC, Mobile Operators & Nokia in Research group
 - Research group and projects started.

A model:... Mobile-web Technology and Web services

- Web- services for developing regions
 - Mobiles act as thin-clients for Web-apps. hosted on Web servers.
 - Pros: Less requirement imposed on users
 - ❖ No need for installation and updates
 - ❖ Location and device independence
 - ❖ Services are independent of OS platform
 - Cons: Online Access
 - Exs. Google Gears, Zimbra Desktop,..

Conclusion

- ❑ Partnering in Educating the Architects of the Mobile Economy: MCASD.
 - ❑ Research & Mobile Lab: Usability & Context.
 - ❑ Innovative mobile Data Services
 - M-Learning, M-health, M-Payment, Mobile Web-services.....
 - ❑ Mobile Service & Content provider sector.
 - ❑ Sustainable Social Development.
 - ❑ The role of basic infrastructures
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“The most far-reaching changes will come, as they often do, from the kinds of social relationships, stake-holder collaborations, market and services that the ICT infrastructure makes possible “.....ITU

Thank You