Building Bridges

W3C Workshop - Role of Mobile Technologies in Fostering Social and Economic Development

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1. The World Is Getting Closer
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Towards universal access

Over 1,8 million mobile subscribers every day
Future growth in mobile communications will come primarily from lower-income segments.
Affordability is the key reaching the next billion mobile consumers

- **>40$/day**
  - Voice/SMS, Internet/IP
  - IP connectivity affordability barrier at 1.5bn

- **4-40$/day**
  - HSPA, WiMAX...

- **4$/day**
  - Voice/SMS, no Internet/IP
  - Voice affordability barrier at 4bn

- **2$/day**
  - GSM solutions, Village Connection...

- **1$/day**
  - No Voice/SMS, Internet/IP
  - 2.7 bn people
2008 saw significant progress in making mobile communications affordable

Today the average Total Cost of Ownership (TCO) for the lower-income consumer is **USD 10.88**.

TCO has **decreased by 19%** between 2005 and 2008.
TCO < USD 5 enables the majority of the lower-income consumers to use mobile communications

Average 10.88 US dollars

Today twelve countries reach the monthly TCO target level.

In 2007 there was only four TCO high performers.
Mobility has a major impact on the economy – affordability, penetration and GDP are closely linked.

In a typical developing country, an increase of ten mobile phones per 100 people boosts GDP growth by 0.6 percentage points¹.

Graph source: Nokia, January 2009

¹Vodafone policy paper: India: The Impact of Mobile Phones 2008
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Some Emerging Markets Characteristics

- **Large rural populations**, more than 2 billions with infrastructure constraints
  - India: 820 million, China: 787 million, Africa: 680 million

- **Low income**, especially in rural and low income urban
  - India: €88, China: 125€

- **Large number of local languages** and **low English literacy**
  - India: 22, Africa: over 1000 in 4 major language groups

Source: Nokia Segmentation3 for India and China, World Bank and Wikipedia for Africa
Livelihood and Life Improvement Services are Highly Relevant; Entertainment has the Widest Appeal

Livelihood: Agriculture
Life improvement: Education
Entertainment
Introducing Nokia Life Tools

- Targeted towards the non-urban consumers in emerging markets
- Focus on Agriculture information and Education services
- Local information in one’s own language
- Easy to use innovative graphical interface
- No hassles with settings
- Works anywhere with GSM coverage, GPRS not necessary
Agriculture: market prices, weather & agriculture info/tips relevant to the cropping cycle in one package.
**Education:** Simple Courses on English word-a-day and General knowledge. All in your local language!

Learn English

Increase your general knowledge!
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3. Design Approach, Challenges & Opportunities
Hyper local, customized and icon-based design

Graphically-rich, Hyper local, Simple Customized Hierarchies

ethnographic
Iterative UX design process...

User “touch points”

Study-1

Ver 0.5

Study-2

Study-3

Iterate

NLT 1.0
Design Challenges

Which network?
- GPRS
- SMS
- VOICE
- Harmonization

How much?
- Cost

Really?
- Relevance

Big/Hungry?
- Power

but.....
...the opportunity is extremely rewarding!
Muito Obrigado!
Background Slides
Graphical Credits

Cody Frew, www.uithread.com