

The role of ICT in empowering people with low-literacy levels in Africa

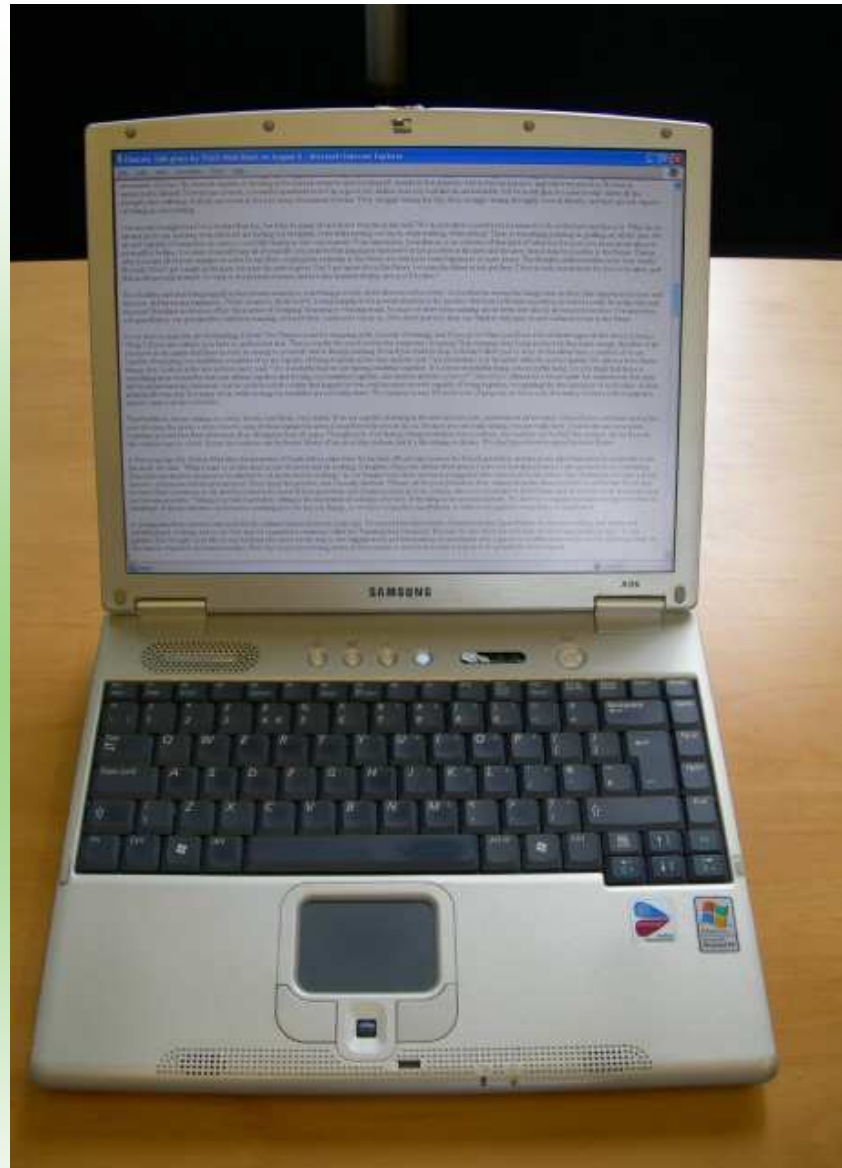


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Zou iedereen die dit kan lezen
alsjeblieft zijn hand willen
opsteken?

Could everyone who is able to read this please raise their hand?



The role of ICT in empowering people with low-literacy levels in Africa



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Presentation overview

- Research aim
- Literacy
- Interaction Design
- Fieldwork
- Issues

Research aim

- Determining role ICT plays in lives of low-literate people in Africa & exploring future opportunities of ICT use to empower their lives.
 - Meaning of being literate in current world?
 - Important daily life activities and skills?
 - Desired skills and why?
 - Current understanding and use of ICT?
 - Desired ICT access, with what purpose?

“The existence of means of communication creates a demand for them. The instruments of literacy create a demand for literacy.”

(Lewis, 1953)

“Little is known presently about methods of circumventing the barriers of illiteracy by means of radio, movies, or television or through the use of such oral communication systems as animation or through pictorial, non-verbal printed media.”

(Rogers & Herzog, 1966)

Literacy, the cure for everything!



Literacy

- Ongoing discussion about definition
 - Digital, computer, 21st century and e-literacy
 - Functional literacy & multiple literacies
 - Relative to the needs of a society, importance of literacy to daily life
 - International and political concern
 - No international agreed measurement
 - Literacy relates to how people organise information mentally
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Interaction design

- *“Designing interactive products to support people in their everyday and working lives”* (Preece et al., 2002)
- Interaction of technology & society: to design digital artefacts is to design people’s lives
- Culture affects user’s expectations and behaviour
- Cultural preferences and biases influence usability
- Specific needs and requirements developing markets may not match developed world

Interaction design & literacy for developing countries

- Many people don't have sufficient reading and writing skills to cope with technology
- Especially developing countries have high low-literacy rates, particularly among women
- Literate activities part of new technological environment and influenced by it
- Understanding low-literate users and their needs

Interaction Design examples

- Introduction ATMs in India (De Angeli et al. 2004)
 - Power distance:
 - Technology as elitist resource
 - Way to overcome forms and signatures
 - Way to avoid face-to-face contacts with higher class or different gender
 - Collective orientation
 - English preferred language: language of technology
 - Lack of expertise & illiteracy hamper technology adoption
 - Novice Internet users South Africa (Walton et al. 2003)
 - Misunderstanding user interface
 - Information gathering absent
 - Misinterpretation hierarchical information structures
 - No source awareness
 - Misunderstanding web searching
-

Mother
|
Grandparents
|
Uncle
|
Cousins

Father
|
Grandparents
|
Uncles
|
An Aunt
|
Cousins

Fieldwork

- 3 months Ethiopia (nov-jan)
 - Working with Forum on Street Children Ethiopia (FSCE)
- 3 months Ghana or Malawi (apr-jun)
- Working with low-literate street children between 10-20 years old
- Both in a rural and urban setting

Fieldwork methodology

- Focus groups
 - Gain insight in daily activities and necessary skills
- Card ranking
 - Understand importance of different activities and skills
 - Understand familiarity with and importance of ICT
- Interviews
 - Get more insight in outcomes card ranking
- Observation interaction in computer lab & with digital camera
- Scenario's
 - Develop possible scenario's of future ICT use



General issues

- How to reference properly?
 - How not to drown in the literature?
 - Bridging different fields
 - Interaction design theory focus on productivity and efficiency
 - Literacy theory focus on establishing literacy
 - How to get the technology speak a “local language”?
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Fieldwork issues

- Choosing the countries of fieldwork and sample
 - Development of cards (virtual or real?)
 - Are local needs a construct of research planning?
 - How to ensure development from below?
 - Will I be speaking the same conceptual “language” as my participants?
 - Several ethical issues
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Questions?