Technology and Practice: Implementing ICT4D in low and middle income countries - A sociotechnical approach

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ICT4D Failure

Failure rates in ICT4D are very high

Becoming increasingly evident just how difficult it is to sustain mHealth projects beyond pilot implementation [1-3]
ICT4D Failure

The technology, by and large, “works”

So, it must be about something other than the technology ...
CHWs using the mobile phones in Mattru

- October 2013
Issues with the phones

Hardware & Software

• The mHealth hardware & software

• Power supply and charging the phones

• Mobile signal
Mobile phone “charging station” in Mattru

- October 2013
Cell towers in Mattru

- October 2013
Other issues with the phones

Other issues

• Society, culture, power, politics

• Illiterate users

• Local capacity

• Creation of networks of stakeholders

• Business models for scaling and sustainability
A Socio-technical View

All technology is embedded in a social and cultural context, making the transfer of just the technology problematic.

The assumption that technology will simply fit into any environment and be easily adopted by the user has been described “fallacy” [4].
Implementers are likely to have to negotiate a multiplicity of interacting socio-technical factors that are both within and outside their control [5]
Many people have written about socio-technical theory:

- Albert Cherns [6]
- Chris Clegg [7]
- Enid Mumford [8-9]
A Socio-technical View

Joint optimization of “technical” and “social” subsystems

- People given the opportunity to participate in the design process
- Design is an extended social process and is socially shaped [7]
- “Multifunctional” workforce [6], and “multidisciplinary” education [7]
- The “need to be able to learn on the job and to go on learning” [6]
- System capable of self-modification, of adapting to change and of making the most use of the creative capacities of the individual [6]
- The means of undertaking tasks should be flexibly specified [7]
- Iterative processes and “incompletion” [6]
Initial Findings?

What are the initial findings from the Sierra Leone mHealth initiative?

- People given limited opportunity to participate in the design process
- Training was provided in operating the phone, but not as yet in anything beyond this
- Additional training planned
- MoU on use of the phone
- Problems with solar chargers means that CHWs may have to use charging stations to charge the phones
- Some evidence of iterative processes
A final thought ...

Maybe ICT4D implementation, scaling, and sustainability is about more than just socio-technical theory

We may need new ways of understanding ICT4D ...
References


