Social-Technical Assumptions in ICT4D

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Lebotlane Case Study

- Lebotlane is a small rural community close to Hammanskraal (approximately 1 hours drive from Pretoria) in South Africa.
- The government, as part of their Multi-purpose Community Centre project, placed such a centre in this community, with a computer lab.
- Computer lab had top quality computers plus a satellite internet connection.
- Unfortunately after some time of use the network connection and internet connection became slower and less reliable.
- To answer this problem the local technical staff decided to replace the wired network in the labs with a wireless network.
- This did not fix the problem either, as the real issue was that the users of the labs were downloading, games, movies, screensavers and even pornography unto the computers, and with them a large amount of viruses and spy ware, which were responsible for slowing down the network.

Problem Statement

- "In summary, the evidence base is not strong - and it urgently needs strengthening – but it all points in one direction: toward high rates of IS failure in developing countries." (Heeks: 2002b)
- Failure in ICT4D project is due to various issues, but I wanted understand the problem of the sustainability of ICT4D projects, and especially the technical maturity of the projects and project staff.
- The hypothesis was that a lack of technical skills and maturity meant that eventually the technical aspects of such an ICT4D project would fail, and thus undermine the sustainability of the project.

Research Methodology

Data Collection Method	Source	Reason
Semi-structured interviews	Participants in the following projects: SEIDET, GSS, UThukela District Child Survival Project, The MPCC evaluation, Computer Literacy Training[1]	To obtain data of first hand experiences with ICT4D projects.
Document analysis	Articles about the following projects: SEIDET, GSS, UThukela District Child Survival Project	To obtain background data on some of the projects.
Observation	Participation in the following projects: SEIDET, GSS	To observe the projects first hand.

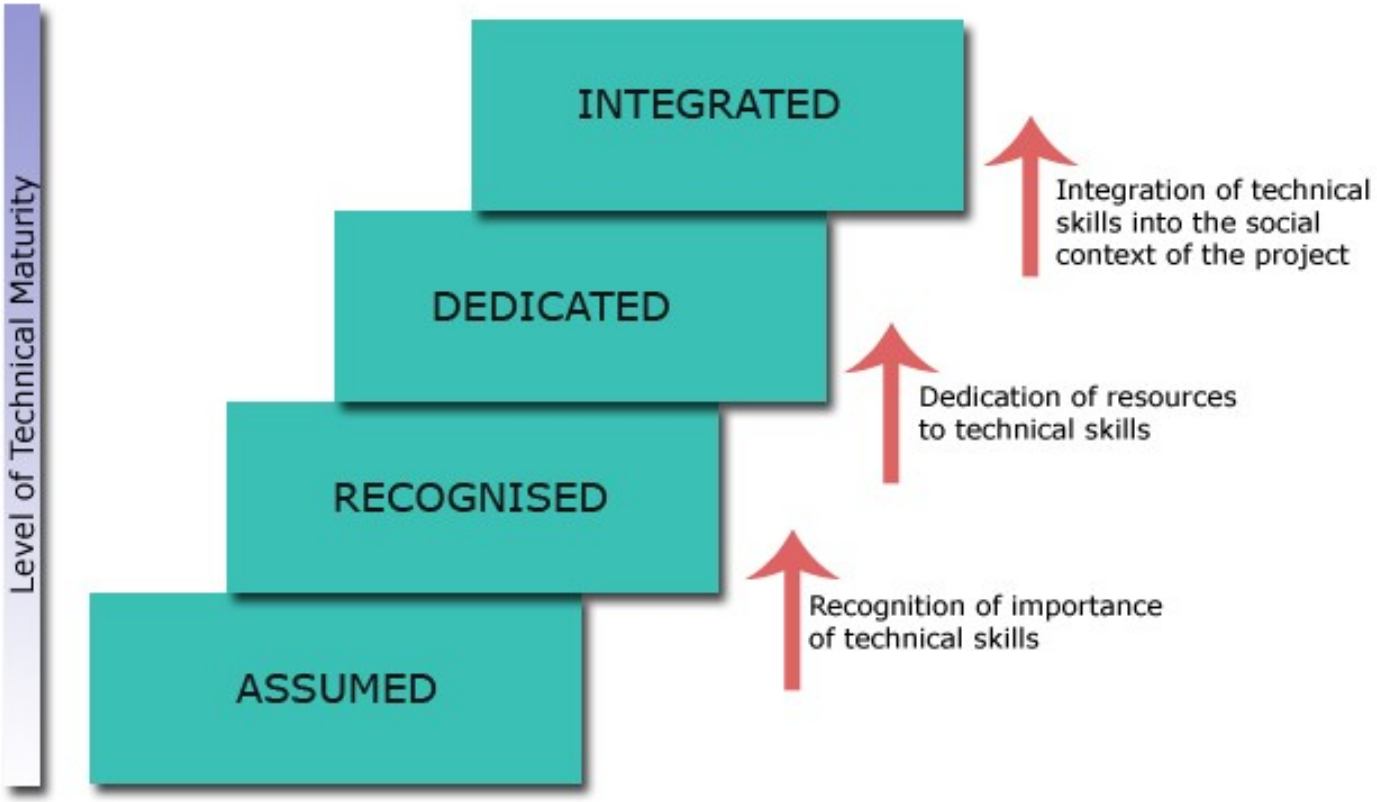
Projects researched

Project Name	Project Location	Institutions involved
SEIDET project.	Siyabuswa, Mpumalanaga	University of Pretoria
GSS project	• Siyabuswa, Mpumalanga • Lebotlane, North West • University of Pretoria, Gauteng	University of Pretoria SEIDET
MPCC evaluation	Various locations in SA	University of Pretoria
ChildSurvival	UThukela District Child Survival Project, KwaZulu Natal	University of Western Cape, WorldVision, UNICEF, DoH, University of Natal
Computer Literacy Training	Mamelodi Campus, UP	University of Pretoria

Findings: Socio-Technical Assumptions

- **Assumed the technology would work:** "No-one asked whether it was working or not. It's IT, it must work!"
- **Assumed only technical skills were required:** One participant made mention of the fact that pure technical skills were not sufficient in solving the technical problems.
- Another a explained that one "needs patience to deal with people who have no idea how these 'boxes from the sky' work."
- **Assumed there would be technical support:** It was assumed that these projects would have Technical support, even if sometimes it had to be provided by members of the researchers families!

Maturity Model



Conclusions

- ICT4D projects are complex, multi-disciplinary projects, with multiple failure points.
- The issue of technical failure is not just correlated to a lack of technical skills or expertise but also to a lack of social skills in dealing with technical issues.
- Various assumptions about the social-technical state of a project are made which can affect that eventual sustainability of a project if it is found that certain skills are not present in the project.
- It is important to have sufficient preliminary discovery of the socio-technical issues in in a project to prevent the creation of unnecessary socio-technical assumptions.