

Socio-Technical Assumptions and Sustainability in ICT4D

Abstract

This paper, based on the authors Masters Research, discusses one possible cause of failure, and lack of sustainability, in ICT4D systems and projects, namely the reliance on certain Socio-Technical Assumptions. The paper looks at the literature surrounding failure in ICT and ICT4D to form an understanding of this phenomenon and how it relates to sustainability. Some definition of what is meant by Socio-Technical Assumptions are also provided. Furthermore numerous real world ICT4D projects, from South Africa, are investigated through observations by the author and semi-structured, in depth, interviews with participants in these projects. The projects cover a range of different types and geographic locations but focus mainly on telecentres or multi-purpose community centres. (Telecentres or multi-purpose community centres are centres or locations, usually in rural and poorer communities, focusing on providing basic services to the community, e.g. the issuing of Identity Documents. In the cases presented within this paper these centres included some kind of computer lab as well, generally with an internet connection. It was the installation, operation and use of these labs, within the centres, that was seen as the ICT4D component for the purpose of this paper.)

Through the observations and interviews, details of specific examples of Socio-Technical Assumptions and how they lead to a loss of sustainability and sometimes even a degree of failure in that particular project are elicited.

Using the examples of Socio-Technical Assumptions the author defines common occurrences and themes to attempt to generalise Socio-Technical Assumptions. From this generalisation the author offers some suggestions for mitigating the effects of Socio-Technical Assumptions, through the recognition of these assumptions and the need for the technical and social skills to recognise the assumptions.

The paper then suggests further possible research avenues, especially focusing on the need for certain socio-technical skills in ICT4D project groups.