

SOCIAL EMPOWERMENT THROUGH ICT-EDUCATION: AN EMPIRICAL ANALYSIS IN TANZANIA

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Abstract

Information and communication technology (ICT) is considered to be a technology, which can be used to achieve development in developing regions. At the same time the majority of the population in developing regions is without access to the technology and lack basic skills and knowledge required to use it. Rather than importing solutions developed in other regions, there is now an increasing focus on developing context-sensitive ICT tools and educational programs in developing regions.

This research has taken its departure in such a project; a newly started Bachelor of Science program in information technology – programming and system design (B.Sc.-IT) at Tumauni University located in Iringa in Tanzania. This research has been a qualitative, empirical case study of this B.Sc.-IT program with the students and teachers involved in the B.Sc.-IT program as the main focus in the research.

The result of the research is this Master's thesis "Social empowerment through ICT education: an empirical analysis of an ICT-educational program in Tanzania." It aims at generating knowledge on informal institutions influencing empowerment through ICT-education in Tanzania. The theoretical foundation underlying this research is a joined framework of Institutionalism theory, Information System (IS) theories, 'The Network Society' by Manuel Castells and 'Development as freedom' by Amartya Sen.

Because our research question focuses on social structures and informal institutions, we used a qualitative grounded theory-inspired methodology as it offered an explorative framework allowing intangible structures to be identified and institutional themes to emerge while carrying out the research. Our data set was based on a combination of eleven interviews and observations collected during six weeks of fieldwork at Tumauni University.

The empirical framework, which evolved throughout our research led to the identification of five institutions, embedded in the context of the B.Sc.-IT program at Tumauni University, which influence empowerment through ICT-education. These institutions were the educational system,

family structures, ICT-subculture, ICT-role models, perceptions of ICT, and globalisation. The institutions were analysed according to the obligations and possibilities they impose on the B.Sc.- IT students and their various effects on empowerment through ICT-education. The empirical findings were combined with the theoretical conceptualizations and helped us in answering our research question:

How do institutions influence empowerment through ICT-education in a Tanzanian context?

- 1) On a local level the network society as a global institution only seems to have a little impact on empowerment through ICT-education. This trend is in opposition to the theory, which suggests a more strong relationship.
- 2) Local established institutions, such as family structures, the educational system and perceptions of ICT seem to support as well as limit empowerment through ICT.
- 3) ICT-subculture and ICT-role models, which are institutions generated by the ICT education itself, seem to have the most supportive influence on empowerment through ICT-education.

The main contribution of this research is knowledge on the role informal institutions play in empowerment through ICT-education. In particular we found it important how the ICT-education in itself nurtured two informal institutions: an ICT-subculture and ICT-role models. First, the ICT-students have created an ICT-subculture within the B.Sc.-IT program that foremost builds on local principles of strong social responsibilities and an ideology of sharing. Subsequently, this subculture functions as a local platform supporting exchange and creation of ICT-knowledge between the students. Additionally the research revealed how the students are gradually starting to perform as ICT-role models in their own social networks outside the B.Sc.-IT program where they as ICT entrepreneurs are making ICT knowledge and skills available to people in the local context. Both the ICT-subculture and the ICT-role models are very important outputs of the B.Sc.-IT program. By further evolvement they carry the potentials to become important future dynamics that can solve some of the structural limitations of the educational system and the computer illiteracy among the general public in Tanzania.

These findings hold implications for the B.Sc.-IT program's future development as well as they carry indications of important knowledge for further research in ICT-educational programs in developing regions, for research in information systems in developing regions, and for the educational structures in Tanzania.

Our research work began September 2007, the empirical data was collected between 1st of November and 21st of December 2007, and the final master thesis was finalized 3rd of Marts 2008.