



ISD4D: A Holistic Information Systems Development Approach for Societal Development

Abstract

Adjusting technology to local context is a major challenge today in the field of ICT for development, recognized equally by academics, practitioners and policy-makers. The aim of this research is to respond to that challenge by developing a comprehensive approach (methodology) for the analysis and design of sustainable and scalable socio-technical information systems that promote societal development of local communities in varying developing-country contexts. Besides its research objective, the project has a capacity-building objective of forming a sustained tripartite international research group capable of disseminating, evaluating and improving the approach further.

The resulting holistic information systems development approach for societal development (ISD4D) is to comprise methodological guidelines in five sub-areas integrated into a holistic one: (1) Context mapping, (2) Community needs analysis, (3) Workflow analysis, (4) Architecture design, (5) Interaction design.

The project is based on previous research of the research group in the Informatics Development for Health in Africa – INDEHELA projects as well as a number of related national and international projects. The project will integrate the currently separate methodological sub-areas into one, and adjust them to the specific contextual settings of developing countries.

The research approach is participatory action research in which Finnish, Mozambican and South African researchers collaborate with local actors to jointly develop the IS development approach. The empirical cases will be real-life IS development projects in maternity health.

The research process alternates between theoretical reflection and empirical action in the real-life cases. The project is divided into four phases: Setting-up phase, two action-reflection phases, and scaling-up phase.

The tripartite research team is strongly networked with a number of partners and projects nationally and internationally. Dissemination of results will take place through these networks. The outcomes will include the ISD4D approach documented in a report and several refereed scientific papers, as well as 5-8 PhD degrees in Finland and Africa.

Bridging the gap from ICT policies to the real-life development of socio-technical information management for societal development in Africa by African stakeholders will have a very high potential for societal impact. A documented, empirically tried IS development approach that is contextually sensitive will be a major scientific breakthrough in Information Systems.

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