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DATE OF DISPUTATION:	13ˢᵗ of February 2013
DISSERTATION TITLE:	*Customization of Generic Open Source Software for the Health Sector in Developing Countries: A Practice Based Approach*

The overarching goal of this thesis has been to improve our understanding of the process of generic open-source software (OSS) customization from the perspective of healthcare organizations of low and middle income countries (LMICs). The thesis has addressed this issue by exploring customization of a free and open source software called District Health Information Software (DHIS) in three LMICs; analysing the relevance of DHIS as a generic and OSS and identifying factors affecting its customization; and building a model for guiding capacity-building during the customization activity.

The research took place within the Health Information Systems Programme framework and its involvement in health information system strengthening in Malawi, Mozambique and Guinea-Bissau. Data was collected from interactions with customizers, developers, users and data managers. Data collection lasted from 2009 until December 2012, and involved the use of multiple sources, including participant observation, engagement with customization work, interviews, artefact examination, brainstorming and reflexive discussions.

The main conclusions of this research points to existence of obstacles for customization and several ways through which they are overcome. The main obstacles were poor skills and competence, software misfit, poor supporting infrastructure. Strengthening and sharing of experiences and ideas across different groups was an overarching principle toward achieving software customization despite obstacles. This principle was materialized by several practices. Firstly, the practices of improvisation and *bricolage*, querying for artefacts and requesting for help were used to solve customization problems. Secondly, the interplay between different customization sites enabled the emergence of competence-building practices of cross-site interaction, tailored training and co-located learning. Finally, the practice of interaction across sites permitted the development of requirement that led to the customizability or strengthen of the generic software systems.

Furthermore, based on the results from the research a model for capacity-building was built. This model combines the customizers skills and knowledge with three overlapping approaches: first, exposures to the complexity of the customization sites and the domains where the software will be applied; second, have guests in the sites supporting and helping with the customization work; and third, provide to customizers an environment where they can develop a broader view of the activity through inter-professional collaboration.