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Summary of the thesis:

Designing and implementing health information systems in developing-country settings is challenging. Many health information systems do not go beyond the pilot stage, and tend to vanish when external funding is over. In other cases, multiple fragmented health information systems remain, but these are unable to talk to each other. And more often than not, data collected by health information systems are not used in decision making.

To better understand and address these problems, this thesis employs an information infrastructure perspective and views health information systems as parts of larger and complex social-technical networks. This thesis is based on action research projects exploring the dynamics and processes of designing and implementing four health information systems in Vietnam between 2012 and 2016. Based on my involvement in these projects, I identify, analyze and discuss four key design problems in this particular setting: a) the scaling and sustainability problem, b) the all-or-nothing problem, c) the competing systems problem, and d) the information use for action problem.

This thesis contributes to the current knowledge with a set of rich empirical descriptions of the design and implementation of health information systems in Vietnam. Theoretically, it contributes to information infrastructure discussions in the information systems domain by presenting four design problems and suggesting five design principles and 15 design rules to meet them.

These design principles and rules also offer practical guidance for managers and designers involved in the design and implementation of health information systems in developing countries.