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DISSERTATION TITLE:	*"Global Scaling of Health Information Infrastructures: Circulating Translations"*

Summary of thesis:
The aim of this thesis is to shed some light on the topic of scaling of information systems, specifically scaling of Health Information Infrastructures (HII). It presents a theoretical model called **"Circulating Translations"** for analysing processes of global scaling of HII, based on empirical work in a range of countries. This thesis also provide some practical advice on HII strengthening, including how to manage increasing scale, and strategies for integration.

Approaching the research theme, the thesis draws upon IS literature that deals with scaling, and also the theoretical strand of technology transfer and associated topics. The work on technology *translation* has been particularly important, in that it deals with the mechanisms of appropriation of technology scaled from one context to another. Translation is the process where the local context shapes the technology and its use, and work in this field has been important for understanding mechanisms of scaling, and what process that then take place in a new context.

The thesis is based on a longitudinal and international action research project called the Health Information Systems Programme (HISP), engaged in HII strengthening in over 30 countries. With a focus on Botswana and Sierra Leone over the last 7 years, complemented with experiences globally including 2 years with the Health Metrics Network, Geneva, this thesis examines the mechanisms of scaling and translations based on empirical work the candidate has been part of.

Successful scaling of HII is seen as being embedded in a local context, while retaining the flexibility to scale to new contexts and be embedded therein. The focus is thus to explain how this embedding produce translations, through the mutual influence of infrastructure, software, practices, and ideas. The Circulating Translations model terms this translation process of embedding as *interaction effects*. Scaling of these translations to new contexts produces yet more translations. The influences between contexts is termed *constellation effects*, explaining how the circulation of locally produced translations push and pull on the constellation of infrastructure, software, practices, and ideas in other places.

The articulated model has several implications towards the literature of scaling of information systems, technology transfer and translation. While technology transfer has treated scaling as linear and uni-directional, from one country to another, my

model sees scaling instead as multidirectional, non-linear with potential to scale to other contexts.