Value Sensitive Transfer (VST) of Systems Among Countries: Towards a Framework

Malik Aleem Ahmed, Delft University of Technology, The Netherlands
Marijn Janssen, Delft University of Technology, The Netherlands
Jeroen van den Hoven, Delft University of Technology, The Netherlands

ABSTRACT

Systems like large technical and operational networks are necessary in modern societies, yet they are costly and time-consuming to develop. Instead of countries and organizations having to build systems from scratch, the transfer of systems is becoming more common. Yet systems reflect the values of the societies in which they are built and of the designers who develop them. Public values differ among cultures and countries; this not only hinders the transfer of systems but results in a lack of their adoption and acceptance by the receiving country. This article investigates the case of the transfer of parliamentary webcasting/telecasting systems from the US to Pakistan to better understand the international transfer of e-government systems. Although the concept of systems transfer is simple, implementing the system within a different cultural setting was more complicated than initially anticipated. The transfer of the system was influenced by the political objectives and cultural differences. Value tensions were found, especially surrounding openness, transparency, and accountability. Hence, the authors propose broadening the perspective on the transfer and development of systems by taking value differences into consideration. Toward this purpose, a framework for designing Value Sensitive Transfers (VST) is proposed.

Keywords: Adoption, Cross-Cultural Transfer, Diffusion, Parliaments, System Development, Technology Enactment, Value Sensitive Design, Value Sensitive Transfer

INTRODUCTION

The comparison of e-government through surveys by the UN Index (UNPAN, 2002, 2008, 2010), Brown University (West, 2004), Accenture (2001) and Cap Gemini (European Commission, 2001) have stimulated governments to develop their online efforts. Countries that rank low in these surveys emulate the functionality and systems of high-ranked countries in advancing their own e-government efforts. Developed countries often provide technical and financial assistance to countries in lower rankings by offering to transfer their already developed e-government systems. These kinds of projects are often called aid-assisted public sector institutional strengthening projects. In these projects, aid donors and international
development organizations provide financial and technical assistance to the governments and public sector institutions in developing countries. Aid donor agencies such as United States Agency for International Development (USAID), the World Bank, the Canadian International Development Agency, and the United Kingdom Department for International Development have been providing support to public sector institutions of many developing countries in a bilateral mode of assistance. Similarly, the United Nations Development Programme has been working to strengthen public sector institutions in many countries.

Different studies have explored the effects of technology on public sector institutional strengthening by looking at the social, cultural, organizational and political dimensions of e-government projects (Ahmed, 2010, 2011; Brewer, Neubauer, & Geiselhart, 2006; Dunleavy, Margetts, Bastow, & Tinkler, 2006; Fountaine, 2001; Gil-Garcia, 2006; Luna-Reyes, Zhang, Gil-García, & Cresswell, 2005; Weerkakody & Dhillon, 2008). Nowadays, emphasis is placed on the design of institutions, infrastructure and technology as shaping factors in our lives and in society (van den Hoven, 2008). Systems should be placed into the context in a sensitive manner integrating different perspectives and values, and tailoring the systems to particular circumstances. The theoretical foundation that takes this into account is Value Sensitive Design (VSD) (Friedman, Kahn, & Borning, 2002; van den Hoven, 2009). This theory accounts for including values in a principled and comprehensive manner throughout the design process (Friedman et al., 2002). A main assumption is that public values should be reflected in the design of systems (van den Hoven, 2009). Based on the VSD theory we postulate that the process of transferring e-government systems internationally should take into account public values, culture, institutional norms and practices. The overall objective of e-government might be similar among countries and cultures, but the differences in values influence decisions regarding design and implementation.

Although much research has been done in the field of system development, there has been only limited research in the transfer of systems and even less in the transfer of systems among countries of different cultures. This paper is structured as follows. First, the background of this research in the field of institutional theory is presented, suggesting that ICT often reinforces existing structures. We then refer to studies denoting differences in values among countries. Further, we identify the role of values in aid-assisted projects. Next, an in-depth case study is discussed, describing the efforts to transfer a parliamentary webcasting and telecasting system model from the US through the USAID project to Pakistan. The case study shows that the project started with preconceived ideas and value objectives which were based on the donor country’s broader value objectives and its systems. This aspect resulted in limited take-up and acceptance by Pakistan. We then reflect on the case study through our theoretical lenses. The investigation of the case study resulted in the need for a framework to better understand the role of values influencing transfer among cultures and countries, which we have named Value Sensitive Transfer (VST) framework. Finally, conclusions are drawn and recommendations for further research are presented.

BACKGROUND

Shaping of Technology

Many researchers have discussed how social, political and cultural values affect technological innovation and how the latter in turn affects the former (e.g., Gil-Garcia, 2006; Goulet, 1983, 1992, 2006). Goulet (1975) argued that technologies never exist in a vacuum: know-how and special skills are embodied and embedded in people and social systems, which, as Friedman et al. (2002) describe, then affect technological development. Steer, Meyer and Sanchez-Runde (2008) found that culturally embedded principles can be utilized to guide concrete actions towards the development of...
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