

Chapter 12

Actability Evaluation: An Exploratory Study

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In this chapter, we discuss an evaluation of a computerized information system in an elderly care unit. The evaluation is based on the concept of actability, which is a combination of theories from Human-Computer Interaction and the Language Action Perspective. The reason for uniting different theories is to obtain a more holistic evaluation model. The findings show that the evaluated system has a low degree of actability, and the users had a positive attitude towards the system. One explanation could be that we, as evaluators, reviewed both structure and content, whereas the users saw only the content of the information system (i.e., its functions) as the most important aspect.

INTRODUCTION

Evaluations of computerized information systems (ISs) are often carried out as a way to learn about the workings of these systems, as well as a means of learning how the systems could be designed to increase an organization's efficiency and quality in products and services. Another purpose of evaluations is to gain knowledge about the effects of introducing ISs into organizations. Computerized ISs are expensive and organizations need to know that they are a worthwhile investment.

Previously Published in *Managing Information Technology in a Global Economy*, edited by Mehdi Khosrow-Pour, Copyright © 2001, Idea Group Publishing.

This chapter appears in the book, *Information Systems Evaluation Management* by Wim van Grembergen. Copyright © 2002, IRM Press, an imprint of Idea Group Inc.

Evaluations of ISs are often based on theories and models from human-computer interaction (HCI), where the goal is to develop usable systems focusing on the interaction between user and computer (see, e.g., Löwgren, 1993; Preece, Rogers, Sharp, Holland, & Carey, 1994; Treu, 1994), or on the more traditional systems development model, which concentrates on the functionality of the system. We believe that it is not enough to study a system's technical capabilities and/or usability¹ if we want to create high-quality information systems that improve the quality of products and services in an organization. Instead, we use the concept of "actability" (Cronholm, Agerfalk & Goldkuhl, 1999). "Actability" combines the more interface- and cognitive-focused theories of HCI with the language action perspective (LAP) (e.g., Goldkuhl & Lyytinen, 1982; Winograd & Flores, 1986), where information systems are seen as communication systems used as a means to act within the organization. Functionality of an IS is also an important part of actability.

This chapter addresses several objectives: firstly, we want to illustrate an evaluation performed in a geriatric care unit; and secondly, we argue that, by using actability as a theoretical framework, we can study ISs from a more holistic perspective that covers more aspects than do earlier approaches (e.g., HCI).

The chapter is organized into eight sections. In the next part, Section 2, we discuss and define actability, and in Section 3 we present the system and its users. In Section 4 we discuss our evaluation method, and in Section 5 we present the findings. In the next part, Section 6, we briefly discuss from whose viewpoint the evaluation was carried out. We discuss and reflect on our findings in Section 7, and finally, Section 8 concludes our paper with a summary of our findings.

ACTABILITY EVALUATION

A traditional requirements' specification usually consists of a description of an IS's functions that expresses what a user should be able to do with the system. However, the concept of "function" is limited, as it mainly connotes the technical implementation and ignores the system's social, cognitive and organizational effects.

To analyse an IS's actability we used a general framework (Shackel, 1984) which we believe covers most use-situations. The framework consists of four components – user, task, tool and environment which should be studied in relation to each other (see Figure 1). The components are not three isolated relations, but focus on different things in an evaluation or design situation.

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