



Chapter XIV

USE IT to Create Patient Relation Management for Multiple Sclerosis Patients

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Abstract

Patients with Multiple Sclerosis (MS) visit various healthcare providers during the course of their disease. It was suggested that information and communication technology (ICT) might help to orchestrate their care provision. We have applied the USE IT-tool to get insight in the relevant problems, solutions, and constraints of the MS care both in the organizational and the information technological area. There is hardly a chain of healthcare, but rather, a network in which informal communication plays an important role. This informal network worked reasonably effective but inefficient and slow. MS patients-count is only small for most care providers.

Patients thought that lack of experience caused their major problems: insufficient and inadequate care. To improve care, we proposed a solution that combines an "MS protocol," the introduction of a central coordinator of care and a patient relation management (PRM) system. This is a simple Web-based application based on agreement by the caregivers that supports routing, tracking, and tracing for an MS patient and supplies the caregivers with professional guidelines. It is likely that we would have suggested a far more complicated ICT-solution if we had only analyzed the MS care process as such, without specific consideration of the dimensions in the USE IT-tool.

Introduction

Research in human-computer interaction (HCI) has been spectacularly successful and has fundamentally changed computing (Myers, 1998). The adoption of information technology has changed less dramatically and is a major problem in healthcare today (Berg, 2001). The HCI community has tended to portray the average user as someone who knows how to deal with IT and who willingly participates in this interaction (Marsden & Hollnagel, 1996). The average user does not exist in healthcare; they range from laggards to innovators (Rogers, 1995), and, most times, HCI is designed to address the innovators (Spil, Schuring, & Michel-Verkerke, 2004). This means that highly-complex systems are designed that have to be used by people that have limited capacity to deal with computers. Interaction design, a newly-coined discipline (Coiera, 2003), believes that information systems design should include the people who will use them. We developed an interview model, called USE IT, that includes the end user in the IS design process by determining his or her user characteristics before the actual system design process starts.

In this chapter, the USE IT model (Spil, Schuring, & Michel-Verkerke, 2004) is applied to define what use of information and communication technology (ICT) would support healthcare professionals in providing care to patients suffering from Multiple Sclerosis (MS). Two aspects of the relation between technology and human interaction will be discussed in this research: first, technology—partly—replacing human interaction, and second, factors that influence the success of human interaction with technology, in respect to actual use.

The next section, *Background and Motivation*, describes what problems in the MS healthcare chain motivated us to conduct the research. In the *Methodology* section, it is discussed why the USE IT-model is the appropriate methodology for this research. The complete research design is given in the *Research Design* section. After that, the results of the case study are presented in the *Results* section. The discussion of the findings in the following section, *Discussion*, will lead to the presentation

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