Chapter XIII

Relevance and Micro-Relevance for the Professional as Determinants of IT-Diffusion and IT-Use in Healthcare

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ABSTRACT

User-adoption of new IT-applications is the proof-of-the-pudding when it comes to IT-success in healthcare. As a consequence, many studies are made of the role of the users in the introduction of new IT in both theory and practice. This paper introduces relevance and micro-relevance as key determinants of IT-diffusion and IT-use, respectively. Relevance is the degree to which the user expects that the IT-system will solve his problems or help to realize his actually relevant goals. Micro-relevance is the degree to which IT-use helps to solve the here-and-now problem of the user in his
working process. Central to both concepts is the degree to which goals or problems that IT is related to are actually pressing in nature. Goals and problems that are less pressing do not result in relevance. Goals that are pressing may still not be micro-relevant on the level of executing work. A study amongst 56 general practitioners (GPs) on the introduction of an Electronic Prescription System (EPS) demonstrated the importance of relevance and micro-relevance. To these GPs, time-pressure and communication with pharmacy and hospitals were highest on the agenda. In that light, the innovation of EPS was not relevant. Lack of micro-relevance level obstructed intensive use of EPD by those who had introduced the innovation. As a consequence, those who adopted the EPD only used it sparsely.

Every improvement is a change but not every change is an improvement. (*Heraclitus*)

**INTRODUCTION**

The central perspective of our approach is that user- adoption of new IT-applications is the proof-of-the-pudding when it comes to IT-success. This contribution will elaborate on two factors that determine the diffusion and the use of IT: relevance and micro-relevance. We will use an example in the healthcare sector to illustrate how these factors work. Healthcare is changing (Tange, 1997), and information and communication technology is a driving force for many of these changes (Suomi, 2001). At the same time, many authors report cases of failure of ICT innovations (Southon et al., 1999; Gelderman, 1998). The cause of these failures is often searched for in resistance and user participation (Ballantine et al., 2000; Offenbeek & Koopman, 1996). Professionals in healthcare organization get the blame for opposing changes in their working processes. But Pare & Elam (1999) state that they are positive about using information systems to access up-to-date knowledge, for continual medical education, for access to healthcare in rural and remote areas, for the quality of patient care and for the interaction within a healthcare team. Also, Timpka (1989) demonstrated the fundamentally positive attitude of physicians towards the use of IT. So, there is no resistance to change, there is only resistance to bad change (Barlow, 2001). Therefore, the assumption is made that there is more to IS success than resistance alone. While resistance is still important, there is an increasing awareness that there is a wide range of more complex organizational and people-related factors to be taken into consideration (Lorenzi & Riley, 1994). Southon et al. (1999) concludes that the capability to bring IS benefits is severely compromised by our inability to adequately address the problems of the healthcare
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