Chapter VI

The Electronic Patient Record As An Organizational Artifact

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The research effort on Electronic Patient Records (EPRs) has rapidly increased in the last decade. Much of this research focussed on standardisation and technical realizations. We will describe such a research effort in this chapter and evaluate its success. Our main finding is that the lack of success of this specific research effort is mainly due to its technological bias. Although standards (both conceptual and technical) are important prerequisites for the realisation of an EPR, organisational issues are decisive for success. The role played by these organisational issues will be illustrated by analysing the findings of the case study presented in the chapter. We will argue that research on EPRs should be more focussed on the role of an EPR as an organisational artefact that coordinates the work of healthcare professionals, in order to lead to successful implementations.

INTRODUCTION

Healthcare changes. In Berg (1999), the authors discuss both internal and external reasons for this change. External stakeholders, such as insurance companies and the government, want more influence on the process of providing care to
patients. Their objective is to increase the efficiency and effectiveness of the care process. Internal reasons for the change of healthcare are the further specialisation of the medical profession and the more frequent occurrence of chronic diseases due to the increase of average age. These internal reasons imply a more intensive cooperation between healthcare professionals in the process of delivering care. This cooperation requires co-ordination of activities in time and place.

The Electronic Patient Record can play a major role in enabling and shaping these changes. In Berg (1999) two main functions that an EPR can play are discussed: accumulating and coordinating. The EPR accumulates information on patients. That is, it stores and aggregates patient data, and as such provides an overview of the care history related to the patient. It must be stressed that in doing this the EPR is an active artefact, because it constructs a view (or multiple views) of the patient record in the process of accumulating. The EPR also coordinates the work of different healthcare professionals. It enables the sharing of knowledge on a patient, and can passively (by making knowledge accessible for all healthcare professionals) and actively (by notifying or alerting professionals) influence their work processes.

This coordination function can result in a change in the cooperation between healthcare professionals. Because of this effect the EPR is often claimed to enable the emergence of ‘virtual’ healthcare teams. This claim is evaluated in this chapter against the results of implementing an EPR in order to support shared care for diabetes patients, which was done as a pilot of a European R&D project on EPRs called Synapses (Grimson et al., 1996).

The Synapses project ran from 1995 until the end of 1998. It involved 26 partners from 14 different European countries. The budget for Synapses was 5.2 million ECU. The project set out to solve problems of sharing medical record data between autonomous information systems, by providing generic and open means to combine healthcare records or dossiers consistently, simply, comprehensibly and securely, whether the data passes within a single healthcare institution or between institutions. The Synapses project developed the specifications of a server, acting as a mediator between information systems keeping parts of medical records (the so-called feeder systems) and client applications, used for viewing medical records.

Currently, the electronic and paper records used by healthcare professionals are mostly held in islands of information. Therefore, sharing information across systems is very difficult and time consuming. Often, non-automated and non-efficient means of communication are used for sharing information. This is hampering the progress towards shared care and cost-containment.

These problems are clearly illustrated in the case of diabetic patients. The treatment of diabetic patients involves the general practitioner (GP), a nurse specialised in the treatment of diabetic patients and several healthcare professionals at the outpatient clinic, and various departments within the hospital. At the different stages of this process, several flows of information occur between the healthcare professionals involved. In the Academic Medical Centre, it was felt that the efficiency and the effectiveness of communication between the healthcare profes-
A Tool for Automatic Hammersmith Infant Neurological Examination
www.igi-global.com/article/tool-automatic-hammersmith-infant-neurological/53817?camid=4v1a