

Chapter 7.2

Critical Insights into NHS Information Systems Deployment

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ABSTRACT

This chapter discusses a systems methodology called strategic assumption surfacing and testing (SAST) that was used to understand the design and deployment of information systems in the healthcare context. It is based on the experiences of conducting SAST with a group of healthcare professionals, working in the National Health Service (NHS) in England. This application of SAST in the NHS setting highlighted deep politico-cultural concerns in the organizational setting, and it helped towards the conception of a normative inclusive approach for health informatics design and deployment. This approach introduces the understanding that the development of information systems in healthcare is a complex agenda, the success of which demands the active involvement of all stakeholders through all the

key stages of the process. Critical perspectives on SAST have also been considered and the assumptions fostered towards arriving at the conclusions, have been highlighted.

INTRODUCTION

The responsibility of provision of healthcare services in England rests with the National Health Service (NHS). The NHS is the largest employer in Europe with an annual budget set to exceed £92 billion in 2007/08 (Department of Health, 2005). In October 2002, the NHS launched the National Programme for Information Technology (NPfIT) with the objective to create an integrated healthcare information system (IS) supported by information technology (IT). NPfIT has an anticipated investment of over £6.2 billion (Health

Informatics Community, 2004). However, there has been tremendous scepticism amongst key stakeholders regarding the success of NPfIT due to its lack of consultation with end users. The fundamentally top-down policy-led approach to the design and implementation of NPfIT and its lack of adherence to effective IS project principles have come under much spotlight as contributing to the feared failure of the project (Ballard, 2006).

This chapter argues that effective deployment of healthcare IS can be achieved by considering the interaction between a diverse range of factors within the organizational setting. This kind of an approach is inherent in the systems philosophy of management thought. Systems thinking has influenced a range of methodologies and techniques that facilitate stakeholder participation, boundary critique, and inclusive decision-making. Boundary critique (Midgley, Munlo, & Brown, 1998) is the idea that one's understanding of the world is bounded by the position and worldview they occupy. Therefore, the more one's boundaries are critiqued, the more informed and inclusive do understanding and perspective become. Strategic assumption surfacing and testing (SAST) is one such methodology that has been discussed in this chapter. Experiences from a SAST exercise with a group of NHS professionals and its resultant normative approach to health informatics has been illustrated.

HEALTH INFORMATICS AND THE SYSTEMS APPROACH

The NHS model of healthcare information system is epitomized in its NPfIT project, which in turn makes the promise to re-create the NHS as a high-tech environment. NPfIT aspires to deliver an integrated healthcare system for the NHS in England with its core in effective IS. The main elements of NPfIT are as follows:

- **NHS Care Record Service:** This is the central database of patients that will be available to authorized clinicians in the country, whenever and wherever required.
- **Choose and Book:** This is the electronic booking service whereby general practitioners (GPs) and other primary care staff are able to make hospital bookings at the convenience of their patients' date, time, and place.
- **Electronic Transfer of Prescriptions:** This service seeks to electronically link up the prescribers and dispensers of medicines in England. The objective is the connection between all GPs, community pharmacies and other dispensers.
- **Picture Archiving and Communication Service:** This enables medical images like X-Rays and scans to be stored electronically that can be viewed by clinicians in their video screens or computers. This is expected to eradicate hard films for recording radiographic medical images.
- **NHSmail:** This is the national e-mail and directory service that will be provided free of charge to NHS staff.
- **NHS Network (N3) Broadband:** This is the fast and reliable broadband service that will support the whole system. It is claimed to deliver the robust demands that will be made by the new system to deliver all the above services.

The previous developments, if implemented as planned, are set to pose the NHS as a truly high-tech organization with state-of-the-art IS support.

NPfIT and Related Challenges

Despite record levels of investments in NPfIT, there is considerable scepticism within the NHS and beyond that the project is heading towards failure. The Institute of Public Policy Research

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