The National Programme for IT (NPfIT) –
Lessons from elsewhere

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It is easy to claim that the NHS is different to most, if not all, other organisations. It is large, very much in the public eye, and is subject to the ebbs and flows of political interest and debate. It comprises many different stakeholder groups, professions and special interests. It has complex and oft-changing organisation structures. It doesn’t have the benefit of the potential clarity of a bottom line statement regarding profit and loss that exists (and sometimes serves to unify effort) in the private sector. For all these reasons and more, change in the NHS culture can be extraordinarily difficult.

But it is dangerously simplistic to use the recognition, and indeed on occasion celebration, of uniqueness, to argue that the health service has nothing to learn from the experiences of other organisations. Nowhere is this more true than in the context of new computer systems.

In this short summary paper, I draw on various materials to:

- Summarise some major problems with NPfIT
- Elaborate on what we mean by a socio-technical approach
- Summarise some of the major lessons learned from the socio-technical tradition
- Identify an agenda for improvement

The problems

The House of Commons Committee of Public Accounts (March, 2007) reported that “At the present rate of progress it is unlikely that significant clinical benefits will be delivered by the end of the contract period” (p. 6), and “We are concerned that leadership of the Programme has focused too narrowly on the delivery of the IT systems, at the expense of proper consideration of how best to use IT within a broader process of business change” (p. 6).¹ In similar vein the National Audit Office (May, 2008) stressed “The Programme is not just an information technology programme but part of a wider change programme within the NHS. It will require substantial organisational and cultural change to be successful” (p. 7).²
Three independent evaluations have made related points. Following in-depth case studies in acute NHS trusts, Hendy et al concluded: “The sociocultural challenges to implementing the NPfIT are as daunting as the technical and logistical ones. Senior NHS staff feel these have been neglected”. Similarly, Car et al in their review of the impact of eHealth on the safety and quality of health care point to the “inadequate attention being paid to socio-technical-cultural considerations”. Finally here, Greenhalgh et al in their evaluation of the summary care record early adopter programme offer a similar critique of the undue emphasis on technology-push, and the need for, and difficulty of, adopting a more socio-technical emphasis involving new ways of working and changes to job roles. They “suggest that the NPfIT National Programme Board consider carefully the finding of this evaluation (which confirms previous observations by academics and policy analysts) that ‘technology-push’ is being prioritised at the expense of wider socio-technical change and that this is, in the opinion of the evaluation team, a major risk to the success of the NPfIT”.

Nor are these lone voices, pointing to the opportunity to adopt a different, more socio-technical approach to improving health care using IT (see also Peltu M, Eason K, Clegg CW. How a socio-technical approach can help NPfIT deliver better NHS patient care. Submitted to Behaviour and Information Technology, May 2008). 6-9

A Trojan Horse?
There are those who argue that the NHS is so complex, differentiated and political that the chosen strategy was the only one that could conceivably work. This views the new technologies as a modern day Trojan Horse, through which the necessary changes to working practices will somehow emerge. We disagree, for three main reasons. First, this was not what was promised to the users and the funders. Second, this strategy is massively risky, running the real danger of wasting vast amounts of money. Third, it assumes that somehow the necessary changes in working practices and roles will follow, with no indication of who will make this happen, how it will happen, or how it will be funded. In our view, the very reasons offered for the adoption of the Trojan Horse approach are the same reasons why it is unlikely to work. The complex, differentiated and political environment intrinsic to the NHS make it unlikely that the necessary social changes will happen spontaneously.

A Socio-technical Approach
So what do we mean by a socio-technical approach? The core argument is simply that any work system comprises both a social system (including the people, their working practices, job roles, culture and goals) and a technical system (made up of the tools and technologies that support and enable the work processes). These elements are all part of a single system comprising interacting parts. The technical and the social elements need to be jointly designed (or
redesigned) so that they are congruent and support one another in delivering a better service. Focusing on one aspect alone is likely to be sub-optimal and to waste money.

A final key characteristic of socio-technical thinking lies in the stress in developing new ways of working that meet the needs of the clients (in this case patients) and users (in this case clinical and administrative staff). User ownership and engagement are critical to success -- simply 'getting in the IT' is unlikely to be enough.

**Lessons Learned from elsewhere**

There have been substantial amounts of research, consulting and practice in the area of new computer-based technologies. In this section I try to abstract 6 lessons summarising the key points under each.

- Performance
- Need
- A systems view
- Ownership
- Project management
- Senior management

**Performance** -- Many new IT systems fail to meet their objectives. The evidence (from case studies, surveys, economic analyses, public enquiries and the like) indicates that around 40% of such investments are complete failures, around 40% meet some of their objectives, and around 20% can be regarded as complete successes.

**Need** -- Organisations should take care that they are investing in IT systems that meet their business needs and goals, and that they are not being sold the latest fashion.

**A systems view** -- As argued above, these are not simply IT systems. To meet organisational objectives, the new IT will need to be accompanied by changes in working practices, business
processes, job roles and responsibilities. These are socio-technical systems. As so succinctly stated by Prof Jim Norton “there is no such thing as an IT system, merely business change projects mediated by people and IT”.

**Ownership** -- Change programmes in which IT experts develop a new IT system and then push it at communities of users very often fail. The users have seen it all before and can be very cynical of promised benefits, particularly if no consideration has been given to their contributions and roles. They know that ‘getting the kit on desks on budget and on time’ is not enough. Senior users and their staff need to own the systems they are going to get, helping ensure they design and receive the systems they need to work more effectively. User ownership is critical to success.

**Project management** -- Project management and team composition need to reflect the emphases above. Projects need to be led and owned by senior end users who focus on improved service delivery. The experts in IT should support the projects (rather than lead and own them).

**Senior management** -- Senior managers are key stakeholders in all this. They alone are likely to have the power and political clout to achieve the necessary changes in mindset, investment and practice. Put simply, senior managers need to think about changes of this kind in quite different ways.

**An agenda for improvement**

The table below (developed initially by Peltu, Eason and Clegg, 2008) lists 10 actions which would massively change the NPfIT and at the same time substantially increase its chance of successfully delivering better patient care.

| 1. | Treat NPfIT as a ‘service delivery’ project not as a ‘technical change’ project. Change the title of the programme to make it clear it is NOT an IT project. |
| 2. | Focus on service improvement through changes to delivery processes and to working practices and roles, supported and enabled by the new IT systems. |
| 3. | Ensure that senior users own the projects. Then get the IT people to support them. |
| 4. | Engage all stakeholders, extending to users a sense of ownership of the new ways of working. |
| 5. | Exploit the flexibility of technical systems to support local customisation and interpretation. |
| 6. | Phase implementation to provide time and space for learning lessons and to help plan the new working practices and technology that are most appropriate locally. |
| 7. | Develop and use new evaluation metrics based on service delivery and user responses (as opposed to metrics focused on the kit, its delivery and use). |
| 8. | Support independent reviews of the key applications. Embed processes that review progress continuously, in order to understand why things have gone well or badly – and what adjustments need to be made. |
Table 1: A local socio-technical strategy to meet national healthcare goals

Summary conclusions
The three overwhelming implications for the National Programme are --

- Replace the current emphasis on technology-push with a more systemic socio-technical approach which focuses on service improvement by planning and delivering changes in working practices and job roles at the same time as the changes in technology.
- Put the end-users (including the senior managers in the user communities) at the centre of the programme, giving them leadership and ownership of it.
- Remember – “There is no such thing as an IT project, merely business change projects mediated by people and IT” (Orton, 2006).

References


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