IS an IT strategy possible? – or, will myths strangle our best efforts?

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Abstract
This paper argues that IT has a special quality in health care – myths cling to it. A myth, here, is a belief that suits certain interests. It is important that the belief is not scrutinised, precisely because the essential quality of a myth is precisely that there is nothing to back it up. The myths in IT in health care include: IT will save organisations money; IT will enable joined-up government; IT will improve patient safety; and IT will transform health care. The existence of myths would not matter if they could be stripped away during the policy making process. It is clear from policy documents in many countries, however, that the policies rest squarely on myths rather than evidence. The myths are identified, and the reasons why they persist discussed.

Introduction

Imagine a world where policy documents have a section headed 'Myths and Fantasies'. A policy on shared electronic health records might include the following:

> 'Lots of people say that electronic records have the potential to transform health care and to improve patient safety. Some of them sound really posh, like the Royal Society in England and the Institute of Medicine in the USA. But, actually, the evidence about the influence of IT on organisational change and on safety is not very strong. Policies are based on a highly selective reading of the literature. The truth is that we have a poor understanding of the costs, risks and benefits of large scale IT systems in heath care. Sorry.'

We all know, instantly, that clear statements about the evidence base will never appear in an IT policy document. Why? After all, governments support the production of evidence-based guidance and fund systematic reviews. They support the National Patient Safety

Agency in England, and similar organisations around the world. So why isn't IT policy making remotely like this? Why does such a gap open up between evidence and policy the moment IT is mentioned?

This paper argues that IT has a special quality in health care – myths cling to it. A myth, here, is a belief that suits certain interests. It is important that the argument is not scrutinised, precisely because the essential quality of a myth is precisely that there is nothing to back it up. You just believe it or you don't. The myths include:

- IT will save organisations money;
- IT will enable joined-up government;
- IT will improve patient safety; and
- IT will transform health care.

The existence of myths would not matter if they could be stripped away during the policy making process. But key documents, in many countries, rest squarely on myths rather than evidence. The myths are identified, and the reasons why they persist discussed.

The key myths

At first glance, it is not obvious why myths should continue to cling to IT in health care. A great deal of good work has been done in a number of key areas, which is why GP and hospital systems work at all. If anything, this work looks a bit geeky – it's hardly the stuff of myths. More generally, the Internet has demystified IT for most of us. YouTube and MySpace are remarkable phenomena, but we can sign up and use them, and using them allows us to appreciate them for what they are.

But we all know that something else is going on, reflected in national policies on IT in health care. The myths manifest themselves in slightly different ways, but all link a technology and an objective that is close to policy makers' hearts. Sometimes the technology appears and the claims grow around it. Years ago, technologies such as HISS were promoted on the basis that they would save money. The process continues today with electronic patient records, where telephone number savings are regularly predicted. Another important example in England at the moment concerns summary records. The Government is determined to create a national database of summary records, initially with a small number of fields but expanding over time. This is justified on the basis of a second myth, namely that IT can help to join up government, ie improve the co-ordination of services.

In other cases the myth originates in government policy objectives, and IT is harnessed in pursuit of those objectives. A good example is the claim that IT is a key vehicle for improving patient safety. This claim was given a major boost by the Institute of Medicine[1] in its

1999 report, *To Err Is Human*. The report was principally concerned with the incidence of adverse events, particularly in hospitals, but it asserted that electronic records could be used to reduce the incidence of such events. Major US companies are now spending serious money on shared electronic records, justified in significant part on the basis that they will reduce the incidence of adverse events. In England, similarly, improved patient safety is routinely cited as a benefit of Connecting for Health investments.

All of these examples are wrapped up in the most general form of the myth, namely that IT will *transform* health care. Because it is a myth the mechanisms underpinning the transformation, and the outcome – the nature of the transformed system – are never specified. The National Programme for IT in England is often presented as the perfect example of a policy based on myth rather than evidence, but US policy is based on essentially similar beliefs.

Some evidence

Evidence should, in theory, be the garlic and the wooden stake for any myth. Space does not permit a detailed account of the evidence base here, but it is clear that there are two distinct situations, one where there is evidence (which is ignored) and the other where evidence is not available.

- **Cost savings**. Systematic reviews demonstrate that there are very few good studies of the economics of IT. Where evidence is available, it shows that IT tends to increase departmental running costs and the time costs of administrative activities.
- **Joined-up government**. There are very few studies which attempt to tease out the role that IT plays in promoting the co-ordination of services or other processes such as commissioning. It seems fair to say that we don't know whether or how IT helps or hinders joined-up government.
- **Patient safety**. If one reads *To Err Is Human* carefully, it becomes apparent that the claim that IT can help to reduce the incidence of adverse events is based on a grand total of two good studies.
- **Transformational government**. There is no evidence that the costs of investments in large scale IT – and in particular the use of centralising initiatives such as the Spine – will generate commensurate benefits.

This last point has been reinforced by the National Audit Office[2], which told us in July 2006 that Connecting for Health could not justify the National Programme for IT on economic grounds. Tellingly, the Treasury has accepted this state of affairs – powerful evidence that

myths trump evidence in health care IT, and indeed Government IT more generally.

Who is to blame?

Why is there such a big gap between evidence and policy? There are three main possibilities. The first, and perhaps the least obvious, is that the IT industry is immature. If one compares the status of the pharmaceutical industry with the IT industry the differences are striking. In the pharmaceutical world the interests of the main parties – the firms, the government, medical profession and patients – are clear, and there is regulation of both the development and distribution of pharmaceuticals. The industry takes responsibility for research and development, the government for regulation. IT is not the same. It is not clear who is supposed to be doing the research and development: it seems to fall somewhere between the industry and government. Neither is it clear who is regulating whom, not least because there is no regulation worth the name. If health IT is a primitive culture, it is natural that myths should hold sway over evidence. Evidence will only come to dominate when the industry matures – and we are some way off that happening.

The second possibility is that the research community is useless. This idea may have instinctive appeal to harassed health service staff, who can't fathom what we academics do all day. The notion that IT doesn't change behaviour just has to be wrong. YouTube and MySpace are changing social relationships. Amazon and other sites have changed the economics of whole industries. If the evidence is lacking it must be because the academics have been doing the wrong studies. A critical evaluation of the research literature might suggest that, the ratio of good to bad papers is appallingly low, and there has been no sustained academic effort to get under the skin of modern IT systems and understand how and why they succeed or fail in health care settings.

The third possibility, and the one that will appeal to conspiracy theorists, is that the government is up to something. The myths are an essential smoke screen for something more sinister. In England, the government has gone out of its way to offer support for this option, notably over its decision to pursue the summary record in the teeth of both evidence and of opposition from many doctors and academics.

Who benefits from the myths?

To decide which explanation is most plausible, it is useful to identify the parties who benefit from the current situation. At the risk of stating the obvious, patients have little to gain from buying into any of the myths. Conversely policy makers, firms and some clinicians and academics may all benefit. Policy makers enjoy nothing more than publishing new policies, and doing so is much easier if you can sit down

and write what you want, unencumbered by evidence. Firms – many of them, anyway – benefit because policies with money attached to them are an important source of revenue. Some clinicians are simply very interested in IT: we would be nowhere without them. And, of course, academics need excuses to do all of those poorly designed studies. The poor designs are crucial, to ensure that we learn little or nothing from them, and we have to do more studies, in an open-ended and self-serving cycle.

Viewed negatively, these groups form an unhelpful nexus of interests, and support each other in the perpetuation of the myths. Even though they all know that there are fundamental problems with the policies, they continue to work in the belief that it will all be alright in the end. Viewed more positively, it seems reasonable to suggest that the myths can be blown away if one of the more powerful interests climbs – metaphorically – up a lamp post and points out the problems.

So, is IT policy making possible? At the moment, the myths have a powerful grip on policy making. There is little evidence that their grip will weaken to the extent that we can expect more realistic policies in the near future. Under the circumstances the most positive approach, for those who are at all concerned, will involve two changes. First, clinicians and others can encourage the view that IT programmes are essentially research and development programmes. This is not a call for more evaluations – which should be kept to a minimum, so as not to encourage the academics – but rather a call to change the way we think about major IT investments. If we think of investments as opportunities to learn, then there is at least a little hope that some learning will take place. Second, and perhaps more radically, we should try to stop ourselves making policies about things we can develop – or think we can develop. It could be argued that myths can only survive as long as we fall into the trap of basing funding on them. It is quite possible to imagine policies which seek solely to encourage the development of a market for IT solutions. Markets don't always banish myths, but they are more likely to get rid of them than the current arrangements. There is little room for sentiment, let alone mythology, in the mobile phone or PC markets. Last, and crucially, don't hold your breath.

References

1. Institute of Medicine Committee on Quality of Health Care in America. To Err is Human: Building A Safer Health System. Institute of Medicine, 1999.
2. National Audit Office. The National Programme for IT in the NHS – Report by the Comptroller and Auditor General. HC 1173 Session 2005-2006, 16 June 2006.