Managing Public Expectations of Technological Systems

A Case Study of a Problematic Government Project

Aaron K. Martin* and Edgar A. Whitley†

Abstract

In this discussion piece we address how the UK government has attempted to manage public expectations of a proposed biometric identity scheme by focussing attention on the handheld, i.e., the ID *card*. We suggest that this strategy of expectations management seeks to downplay the complexity and uncertainty surrounding this high-technological initiative, necessitating the selective use of expertise for the purpose of furthering government objectives. In this process, government often relegates counterexpertise, if not dismissing it outright, thereby greatly politicizing the policy deliberation process. We argue that this manoeuvring by government spells trouble for both democratic deliberation on the issue of biometric identification in the UK and, more generally, expertise-based policy making in related technological ventures.

Introduction: Technological innovation and expertise

By their very nature innovations always raise questions of the absent other (Law and Singleton 2005; Whitley and Darking 2006) as they attempt to give life to something which does not yet exist. When the innovation has a technological element, it raises particular questions about the status of the expertise needed to evaluate it. Innovators are therefore often faced with a dilemma: if the innovation is truly groundbreaking, expertise may not be readily found in the area, whereas once an innovation has become accepted, this expertise is available (Swanson 2003).

In this paper we review proposals by the UK government to introduce one such innovation, a biometric based identity scheme. Proposals for the National Identity Scheme have a strong technological component and there has been

* Aaron Martin is a PhD candidate at the London School of Economics and Political Science (LSE), based in the Information Systems and Innovation Group, Department of Management. His dissertation research focuses on public understandings and expectations of biometric identity systems. In particular, his case study is the National Identity Scheme currently under development in the UK.

† Edgar Whitley is a Reader in Information Systems at the LSE. He has a PhD in Information Systems from the LSE and is the co-editor for the journal *Information Technology & People* and an associate editor for the journal *MIS Quarterly*. Edgar's research draws on his interests in social theory and its application to information systems. Most recently Edgar has been studying the technological and political aspects of the UK Identity Cards Scheme.

much controversy about whether government has sufficient expertise to implement the Scheme on time and on budget, with some commentators assessing the proposals as being high risk and high cost (LSE Identity Project 2005). The government, in contrast, has done much to downplay these concerns, emphasizing the incremental nature of the Scheme that draws upon extensive in–house experience and expertise.

Amongst the many academic approaches to studying the introduction of innovations, the sociology of expectations provides several insights into how those with vested interests in a scientific or technological endeavour manage future expectations, imaginings and visions of new technologies, using powerful actors to guide activities, provide structure and legitimacy, attract interest and resources, and frame discourses on issues of seeming relevance (Borup, et al. 2006, 285–286). Previous studies in the field have investigated the role of expectations in biotechnology (Brown and Michael 2003) and nanotechnology (Lösch 2006), yielding considerable findings. For example, in his analysis of the visionary depictions of nanotechnology, Lösch (2006) demonstrates how futuristic imageries serve as a means of expectation exchange and meaning production between the domains of science, economy and mass media. Related research is found within the social study of information technology where the idea of an 'organizing vision' that gives legitimacy to action without being specific has proved useful (Swanson and Ramiller 1997; Swanson 2003). In this piece we suggest that the ID card itself is becoming the organizing vision for the UK biometric identity scheme, as it serves to give meaning to a highly complex and innovative technological system, while lacking coherence and specificity. This, in turn, affects what is possible in terms of public debate and deliberation.

Debating and deliberating the innovation

As Liberatore (2007) notes, biometric based identification is an area which raises important questions about technocratic decision making and the extent to which citizens and their representatives can engage in informed democratic debate and deliberation. In the UK case, as we show, this issue has been tackled by placing a heavy emphasis on the form of the card itself. We argue that thus far this strategy has resulted in the limiting (and sometimes confusing) of public debate about the Scheme, making it difficult for counterexperts to contribute meaningfully without enduring government reprisal or ridicule. Indeed, as the owner of the ID card initiative, government occupies a powerful space in which its framing of the debate, disclosure of relevant information and use of expertise to further the project is unmatched. Such power asymmetries mean that often the onus is on counterexperts to rebut government claims about the components of the future system, technological or otherwise. In the wake of this contest of experts, the lay public often face difficulties in assessing the actual state of affairs.

In this context it is noteworthy that journalists frequently give official (in this

case, government) accounts the benefit of the doubt when covering novel scientific and technological issues. Indeed, as Gamson and Modigliani remark, "Official assumptions are taken for granted, but even when they are challenged by sponsors of alternative packages, it is these competitors that bear the burden of proof" (1989, 7).

When journalists do present alternative perspectives on the official analysis, they are also criticised by officials for their so–called "regular dripfeed of misleading commentary" (Hall 2007). This tendency to disregard or discount varying perspectives on issues concerning new technology and innovation for the sake of managing public impressions and expectations does little to facilitate democratic debate and deliberation on issues relating to the Scheme. Rather, what we see is an increasing politicization of the use of expertise to further government objectives. We discuss this issue in more detail below after first briefly introducing the Identity Cards Scheme.

The UK Identity Cards Scheme

On 30 March 2006 the United Kingdom Parliament passed the Identity Cards Act, enabling a national, biometric based identity scheme. The proposed scheme is of unprecedented size and complexity, comprising a National Identity Register, the issuing of identity cards and passports and includes a legal and procedural environment associated with implementation, management and enforcement. A number of features distinguish the Scheme from those in other countries. These include the extensive use of biometrics both for enrolment (to ensure that no individual is entered onto the register more than once) and verification, the proposed use of a single identification number across government and the private sector (Otjacques, et al. 2007) and an 'audit trail' that records details of every instance that an identity is verified against information stored on the register.

The successful implementation of the Scheme therefore requires technological expertise in the development of large scale, highly secure databases, advanced chip technologies, sophisticated data collection mechanisms for the 'biographical footprint' checking during the enrolment process, system integration skills to combine all the different aspects of the Scheme and specialist skills in biometric enrolment and verification.

Managing public expectations: It's just a card

Although the technological issues associated with the Scheme have been a major focus for academic audiences, when presenting it to the lay audience, the government has sought to downplay its innovativeness, instead highlighting that effectively it is just a card and as such does not raise particular problems in terms of expertise and novelty. In this section we critically review this way of managing expectations and in so doing address both the inherent tensions between

"knowing without debating" and "debate without knowing" (Liberatore 2007) and the conflicted role of expertise in such simplistic presentations of innovation. In particular, we review the decision to focus on 'the card' in public discourse about the Scheme.

An identity card or an identity system?

The name of the legislation that surrounds the introduction of a biometric identity scheme is the Identity Cards Act (Wadham, et al. 2006), which strongly suggests that the legislation is primarily focussed around the card itself. However, as opposition Parliamentarians, lobby groups (such as NO2ID) and experts have argued, it is the National Identity Register and the audit trail associated with it that is the most troubling from a civil liberties perspective, with some suggesting that the legislation supports the creation of a surveillance society (Surveillance Studies Network 2006). By juxtaposing the UK proposals with other European national identity schemes, this view gains credence.

In 1987 France introduced a remodelled identity scheme which is not mandatory. While a fingerprint is collected during enrolment, it is not digitized and does not appear on the identity card; it is stored securely, and only on paper. It may be accessed by a judge only in cases where the police already have identified a criminal suspect. A central database has been introduced, but it, too, is relatively limited. Its purpose is to facilitate the delivery of the card and not regular identity verification. France explicitly forbids the use of a single identifier to link government records across departments and countries. Likewise there is no detailed audit trail of every instance in which the identity of the card holder is formally verified.

We find another example in Germany where the federal government is forbidden from creating a back–end database of biometrics for identity cards. Privacy law prohibits the creation of the kind of central database envisaged for the UK. Instead, any information that is collected for the system is stored at local registration offices. This information is used to issue the card, but once this process is completed all personal data are immediately deleted and destroyed.

Thus, in both the French and German cases the identity card, and not a centralised database, is essential to the identity scheme. By design the card is made primary while back–end databases are given a diminutive status. In contrast, and despite its nomenclature, the Identity Cards Act gives the register a central role in the overall scheme, particularly through regular auditing functions. Thus critics believe that it is of utmost important to deliberate over the role and makeup of this central registry. However, to date government has been less than forthcoming with details about the database and the larger system. As Professor Martyn Thomas notes in a recent BBC Radio report on the Scheme, "It does seem bizarre that the requirements are still not being well-articulated" (BBC Radio 2007).

Images of the card

Media reportage of developments surrounding the Scheme also reflects a preoccupation with identity cards. A cursory glance at newspaper and online media coverage shows a similar framing of the debate in terms and images of identity cards. Indeed, it is quite remarkable that there are so many dummy images of the national identity card in media coverage despite the fact that the identity card portion of the Scheme has just entered the procurement phase. Some of the first images of the card arose following initial pilots of the Scheme (e.g. BBC News 2004) when the card and the Scheme were news items in and of themselves. Thereafter, a series of images has frequently accompanied news stories about the Scheme. Table 1 contains a sample of images of the identity card.

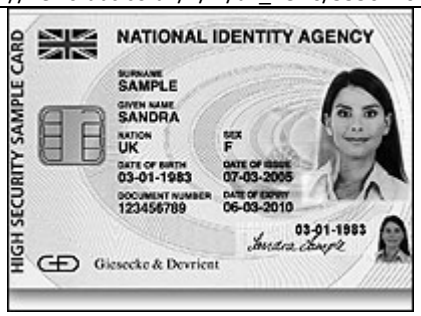
 http://news.bbc.co.uk/1/hi/technology/2583651.stm	 http://news.bbc.co.uk/2/hi/uk_news/3556720.stm
 http://news.bbc.co.uk/1/hi/uk_politics/4744153.stm	 http://news.bbc.co.uk/1/hi/uk_politics/6033687.stm

Table 1 Sample images of the card

It remains unclear why and how so many different images of the card exist which raises questions about the source of such imagery and its purposes. Whilst it is understandable that news organisations would not wish to use the complex architecture of the Scheme as a basis for illustrating news stories (see, for example, Figure 1), these images could be part of a concerted public relations effort by government to influence public acceptance of the Identity Card Scheme.

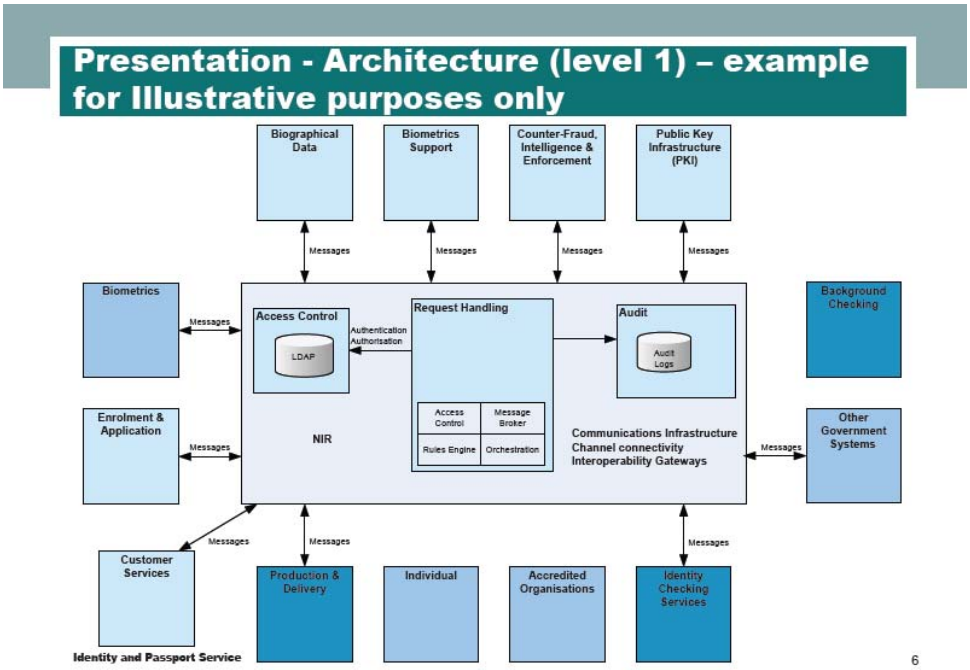


Figure 1 Taken from Feedback Presentation: Intellect Workshop: System & Programme Integration (http://www.identitycards.gov.uk/downloads/2007-03-23Systems_and_Programme_Integration_Presentation_March2007.pdf)

Despite their origins, these images may be understood as a "constitutive force" (Borup et al. 2006, 289) of the identity scheme. Recurring, lifelike images of the identity card serve to give meaning to something which, at present, only exists in the words of politicians. They also condition the public to understand the Scheme *qua* identity cards.

There is a socio–spatial dimension to this constitution of expectations as well. As Borup et al remark, "Expectations have the appearance of greater authority for those who see themselves as having little influence over the outcome of a promise (publics for example). This easily translates into a normative framing of expectations: 'it's going to happen so you might as well get used to it'!" (2006, 292). In this sense, one may view images of the card as insinuating the inevitability of the (still materially absent) identity scheme. One can imagine that expectations of the Scheme might differ greatly if media reports were regularly accompanied by images of server farms (see Figure 2, for example) rather than the handheld ID card.

Figure 2 Taken from http://press.1and1.com/uploads/press/images/Server_room_1.jpg

Politics of expertise and the possibilities for public understanding

Despite both the government and media's fixation on the ID *card* as the foremost component of the identity scheme, it is evident that there is much more to the proposals. However, getting at concrete details concerning, say, the design of the National Identity Register or the use and effectiveness of biometrics in the scheme, for the purposes of increased public scrutiny, is not an easy and straightforward task. This is because, to date, the UK government has been less than forthcoming with basic information on the future scheme, frequently citing reasons of confidentiality. For example, it has refused to publish the so-called Gateway Reviews that would allow for further public debate on the scheme and its feasibility. Moreover that information which is publicly available has changed significantly in past months (UKIPS 2006). This has led critics to charge that the Scheme lacks real substance. Commenting on a meeting with the UK Home Office, Peter Tomlinson, an information technology and smart card specialist states,

> If you are going to design a large-scale system like this, you first go and look at the volumes of transactions that are going to take place, how often are they going to take place, and then we would see roughly how big it was going to be. You can't specify a system unless you have got these figures. There were about four of us who used to go to those meetings and we were all very puzzled. *We basically said that this project is empty, it has no content* (BBC Radio 2007, emphasis added).

In contrast, James Hall, chief executive of the Identity and Passport Service, remarks "using an identity card as proof of identity in a range of situations doesn't necessarily involve any technology investment" (BBC Radio 2007). Again, this sentiment reflects a focus on the card and downplays the extensive technological and administrative infrastructure required to setup and maintain the Scheme.

Because of the identity system's innovativeness, with its multiple technological components, extensive scope and high complexity, this contest of expertise might be expected. We see a sponsor (government) doing what it can to manage uncertainty by focusing public attention on the ID card, a comparatively mundane object.[1] On the other hand, critics and counterexperts strive to open up the debate and in so doing face resistance by protective authorities. It is worth nothing, however, that on occasion government has moved beyond resistance to take a more active approach, publicly attacking counterexperts critical of its proposal (Whitley and Hosein 2007).

All of this creates an environment in which the lay public face considerable knowledge barriers, as it grows increasingly difficult to ascertain what expertise is reliable, who to trust and on what basis to form judgements about the technologies and innovations in question. Obfuscations by government create challenges for experts to meaningfully engage the subject of proposed technologies and, in turn, the public are left in a relative knowledge void. In such situations where so much knowledge and expertise is either unavailable or contestable, it is easy for the public to fall back on that which seems most obvious. In this case, that which is most obvious is the ID card. The power of visual images of the ID card is such that expectations and understandings of the Scheme are formed almost automatically by their very existence. These images are performative, presenting a future reality in a very digestible form.

Concluding Discussion

In this discussion piece we have highlighted a set of concerns about government attempts to manage public expectations of the UK identity card scheme. Primarily, this involves framing public debate in terms and images of cards rather than other, arguably more important or controversial, components. These actions serve to create a powerful set of expectations that have real consequences and raise important questions about the extent of informed democratic debate and deliberation about this topic. It is likely that the continued framing of debate in this manner will lead to further misunderstandings amongst the public concerning the nature and scope of the proposed identity scheme and, consequently, a severely limited public discourse about alternatives.

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[1] This is not to say that the ID card itself is not unproblematic. Two contentious issues related to the card itself are a) the chip technology to be use on the document ('contact' versus 'proximity' (also known as 'contactless' or RFID) chips) and b) the different types of card required in practice.

We believe that it is difficult to draw unyielding lessons from this ongoing case. However, it suffices to say that the UK government's ownership of the biometric identity scheme means that it is in a position to dictate the timing and degree of public scrutiny and thus the extent to which technological innovations are publicly knowable. This point cannot be understated. To date counterexperts have been unable to ameliorate many of their concerns due to powerful government ownership of the project. The role of expertise within the government's brand of public expectations management is highly convoluted and politically charged, reflecting what has been referred to as policy–based expertise (as opposed to expertise–based policy). That is, to date government has tended to select expert input in those circumstances in which the expertise fits their objectives, thus downplaying or dismissing differing expert opinions.

In fact, Dr. John Daugman, the iris biometrics expert once called upon by government to provide evidence in favour of its proposals recently announced publicly his doubts about the Scheme's workability (BBC News 2007). Predictably, government officials have dismissed his concerns, citing their experts' advice. This is yet another example of the politics of expertise at work. We believe it is a trend that is likely to continue. As an approach to innovation management, we feel it is dangerous and likely foreshadows future system failures, thus adding to the list of failed government information technology initiatives.

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AARON K. MARTIN
a.k.martin@lse.ac.uk

EDGAR A. WHITLEY
e.a.whitley@lse.ac.uk
http://personal.lse.ac.uk/whitley

Both may be reached at:
Information Systems
and Innovation Group
Department of Management
London School of Economics
and Political Science
Houghton Street
London WC2A 2AE

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