

Is there a need for identity cards?¹

Stephen Mason

The present government in the United Kingdom appears determined to introduce a compulsory registration card, having recently published a draft Identity Cards Bill.² The proponent of an idea has the burden of proving the concept has a value and will solve a problem, especially when the idea will cost considerable amounts of taxpayer's money. However, no government minister has offered a soundly argued case for the introduction of a registration card in the United Kingdom to date.³ This article will consider the issues relating to identity and the arguments used to impose registration cards on subjects.

Identity

Generally, the meaning of identity is that of *personal identity*, which describes the condition or fact of continuity of personal existence. Another important part of the concept of identification is the ability to establish a *continuity of association* with an individual, that is: is the person now presenting themselves the same person that presented themselves on some other occasion?

The precise meaning of personal identity may differ, according to the circumstances, such as: a unique name of an individual, a name and an address, a name and a date of birth, or perhaps a name and an occupation. An identity can be the establishment of a relationship between one manifestation of personal activity and another. An example is where a patent is to be transferred from the person named in the register to a third party. The person acquiring the title requires to derive a satisfactory title to the patent. They need to establish a link between the person named in the register and the person they are dealing with, or with the predecessor-in-title. This illustrates the point that there is a need to distinguish between the concept of identity and information associated

with identity, such as the name, address and nationality of an individual. This distinction is important, because our identity does not change, but information relating to identity does. It is where an attempt is made to identify people by using the information linked with identity, that things go wrong.

Alternatively, identity can be a condition of being, identified for a purpose. One example is when an individual is prosecuted for driving while disqualified. It might be necessary to prove that the person before the court is the same person that was previously disqualified. If this can be proved, it does not matter whether they have the same name, address or occupation as when they were disqualified previously. A further example relates to individuals considered to be transsexual people – those that are born as a male or female, and who later in their life change their sex. In legal terms, a person may be a male, but in social terms they may be a female. Driving licences and passports have, for some years now, been issued to people based on the gender in which they live their life, subject to a process by which they confirm the transformation, including any relevant medical support.

Equally, some individuals may wish to be known under a *nom de plume*. There are perfectly good reasons for this, such as where an author writes fiction, but does not wish to confuse their real life identity with their activities as creative writer. Two English examples are that of C. L. Dodgson, who lectured in mathematics at Oxford University during the nineteenth century and wrote under the name of Lewis Carroll, and Mary Ann Evans, who wrote under the name of George Eliot. Other examples include married women who use their maiden name professionally and actors that have a stage name.

Proof of identity

Of interest is the concept of proving individual identity. We are familiar with a wide range of documents in the twenty first century, but all they do is record the name of an individual. No document acts to establish proof of identity, not even a birth certificate.⁴ This state of affairs will not alter if subjects are made to obtain registration cards. All a registration card will demonstrate is:

- That an individual might have attended a designated centre to have recordings taken of such biometric measurements of their body as are deemed required, and that they presented a sufficient number of other forms of record (such as a passport, driving licence and such like) to establish a causal link between the documents held in their possession and the claim that they are the person identified in these documents. The possession of a registration card can demonstrate that the holder of the card may have undertaken the process of registration in order to obtain the card. It should be noted, however, that the act of registration, as with the possession of a record of a birth, cannot serve to link an individual to a piece of plastic called an 'identity card'. It only records the process of registration.
- The record and attributes contained on the registration card might be

linked to the holder of that card. For this reasoning to apply, the information contained on the card must not be false or relate to any other individual, whether living or dead. Where the information on a registration card is similar to the information contained on a central database, a check between the two can serve to reinforce the link between the information contained on the database and that contained on the card. This information does not serve to identify the holder of the card. It merely serves to support the association between the database and the information contained on the card.

- Where the individual's biometric measurements are scanned locally to confirm the data on the card, the resulting 'match', if there is one, will be an approximation. It will be rare for the data to match precisely – in fact false matches will be more frequent than the user would wish. The link between the biometric data noted by the local scanning machine and the data on the card, will demonstrate a connection between the individual and the data held on the card. It will not follow that the individual is the legitimate holder of the card or the person described on the card, because the holder may have several cards at their disposal with different registered identities, each to be used with different types of scanning device, some of which will be used if the card is going to be tested against the central database, if a central database is created.

The point about identity is that it is a metaphysical concept, and as such it cannot be inextricably linked to a physical token. Even if it was possible to create such a bond, it is questionable whether our identity should be tethered in such a way.

The requirement for a registration card

The onus is on the proponents of a registration card to demonstrate the need

of such a card. This is a proposition that Nicola Roach, Director, Children, Families, Entitlement Cards and Coroners accepted in response to a question put to her during a Home Affairs Committee inquiry into identity cards held on 11 December 2003.⁵ Although Nicola Roach is not a politician, nevertheless this admission is an acknowledgment that the proponents of a registration card must prove that the relationship that governs our present democratic arrangement, that democracy comes from the people, is not to be overturned lightly. The Home Secretary, in his foreword to the consultation document 'Legislation on Identity Cards' (Cm 6178, April 2004) presented some of the arguments for registration cards, as did the consultation paper 'Entitlement Cards and Identity Fraud' (Cm 5557, July 2002). The section that follows will set out and discuss the arguments used by proponents of registration cards.

'Recent events' – terrorism

The two most frequent reasons for introducing a registration card have been to prevent terrorism and crime. Since the attack on the World Trade Centre in New York on 11 September 2001, a great deal of effort has understandably been expended on attempting to capture those behind the al Qaeda organization responsible for such a terrible atrocity. It should be noted, however, that a registration card would not have prevented this particular act of terrorism, just as registration cards would not have prevented the terrorist activities that took place in Ulster and England between 1969 and the early 1990s (most of those killing people and destroying property in Ulster were known to the authorities). Between 1993 and 2001, 48 foreign born militant Islamic terrorists were charged for terrorist offences in the United States of America. At the time of the attack on the World Trade Centre, of the 20 men involved in the attack, four were illegal aliens that had violated immigration

law at some point, 13 had entered the country as tourists, of which three were on a 'watch list', two entered the country as a combination of tourist and student, and one entered on business.⁶ The fundamental point that needs to be made about terrorists is that their aim is to hide their intentions. Establishing the identity (if such is possible) of a potential terrorist and issuing a registration card to them is of a minor concern. There is no correlation between acts of terrorism and the absence of a registration system, as noted in a recent report by Privacy International. Six countries (see below) have both an identity card and include a biometric measurement in some way, yet they all suffered from terrorist acts.⁷

Country	Number of attacks	Deaths
Cambodia	8	37
Egypt	22	115
Israel	227	-
Pakistan	68	420
Russia	32	620
Spain	51	250

To prevent a terrorist from perpetrating acts of violence and other crimes, it must first be established whether an individual has the intention of becoming a terrorist. No registration process will succeed in determining this information. The proponents of the registration card are caught up in the fallacy that there is an automatic association between the provision of security and the restrictions deemed appropriate to be placed on civil liberties. It is perfectly possible to improve security without encroaching on civil liberties. This first reason for establishing a registration card fails for lack of evidence to support the proposition.⁸

The proponents of a registration card cite the reduction in crime as another reason for introducing compulsory registration of all subjects. Various types of crime are brought together into this category. Each type of crime that deals with the use and misuse of an individual's name or personal information will be dealt with individually.

Identity fraud

Identity fraud has been divided into three main categories: 'account takeover' where a thief obtains access to a person's accounts, 'true name' where a thief uses an item of personal information that serves to identify the victim and 'covering tracks' where a criminal commits crimes using the identity of an innocent person.⁹ The Home Office estimated that this type of fraudulent activity costs the UK at least £1.3 billion each year, and it is claimed to be split equally between the public and private sectors.¹⁰ This estimate is considered below.

Private sector identity fraud

The Association for Payment Clearing Services (APACS) is the trade association for payments in the United Kingdom. Earlier this year APACS issued an analysis of credit card fraud in 2004 entitled 'Credit Fraud The Facts 2004'.¹¹ Their analysis sub-divided fraud into the following categories:

Card not present

This crime is often perpetrated where a genuine card is stolen and the thief uses the card at a distance, by telephone, facsimile transmission, mail order or over the Internet.

Skimming

This is the recording of card details when a card is handed over by its owner for use. For example, waiters in bars and restaurants have been known to have portable recording devices that can capture card details so that duplicate cards can be made for use in 'card not present' transactions. This is worthwhile for fraudsters because, in contrast to a stolen card, a cloned card can be used for a much longer period before its illicit use is detected.

Lost and stolen card fraud

This type of fraud occurs when cards are reported as lost or stolen. Most fraud takes place in shops before the holder of the card has the opportunity of reporting the loss.

Card not received through the post

Cards are stolen in transit between the card issuer and the recipient. Card holders living in blocks of flats and other people that share communal letter boxes are particularly prone to this type of theft.

Identity theft

This type of theft occurs when a criminal uses personal information to open a new account in the name of another person (application fraud) or obtains access to an account of another person (account take-over).

Application fraud

Criminals use stolen or false documents to open an account in the name of another person. The types of documents stolen includes, but are not limited to, utility bills and bank statements.

Account take over

A thief will gather sufficient information about the intended victim first, including searching through domestic rubbish bins and rubbish bins outside organizations that discard information containing details of customers without due regard to the nature of the information that has been disposed of. The thief then poses as the genuine card holder and requests their mail to be directed to a new address. The thief then reports the loss of the card and requests a new card.¹²

Cash machine fraud

There are a number of ways to commit fraud at cash machines:

Shoulder surfing

A thief will look over the shoulder of a card holder when they type the personal identification number (PIN) number into the machine, then steal the card.

Trap the card

A device may be inserted into the slot of a cash machine. The victim fails to notice the additional device, and inserts their card. After typing in their PIN, the

card is retained. The card holder leaves and the thief recovers the device and the card, together with the PIN.

Entry door devices and PIN cameras

A device is attached to the entry slot where the card holder is required to swipe their card to gain entry into that part of the building containing the cash machines. Also, a miniature camera is positioned in such a way as to overlook the PIN keys. By obtaining the information in this way, a thief can produce a counterfeit card and withdraw money from cash machines using the genuine PIN.

Fraud overseas

This type of fraud occurs where cards are stolen from card holders abroad, and where cards stolen in the United Kingdom are used abroad.

Internet fraud

This type of fraud involves the use of cards obtained fraudulently in the real world to make purchases over the Internet.

The total losses suffered by members of APACS in 2003 was £402.4 million, from a total of 7.7 billion transactions with a total value of £420 billion, or just under 0.01 per cent in value of the total value of all transactions. If the government assertion that the private sector is subject to losses amounting to half the estimated £1.3 billion is correct, then evidence needs to be adduced to demonstrate the gap between the estimate of £650 million and the £402.4 million figure from APACS – a gap of £247.6 million. This gap is, apparently, made up by losses estimated to be suffered by insurance companies and members of CIFAS.¹³ It should also be noticed that most of the crimes noted above do not constitute identity fraud. An additional form of crime that has been identified that a registration card would help to prevent is that of money laundering. In her evidence to the Home Affairs Committee, Nicola Roche indicated (in her answer to question 16) that it was

estimated that £390 million was laundered through the use of multiple identities each year, although no evidence was provided to establish the basis upon which this figure was reached. No explanation was offered as to how a registration card would solve the problems relating to the laundering of money.

Public sector identity fraud

The public sector is alleged to suffer losses to identity fraud to the value of £650 million, comprising half of the £1.3 billion (also considered to be an under estimate) estimated in paragraph 2.14 of the *2002 Cabinet Office Study*. An 'analysis' is given in Box 2.1 of this Study, and is discussed in slightly further detail in Annex B. Most of the figures relating to the losses linked to identity fraud are put forward as estimates, and include the following:

Customs and Excise:

Apparently missing trader intra community fraud is considered very seriously, by which traders from across the European Community supply high value goods such as mobile telephones and computer parts to each other, taking advantage of the zero rate of VAT, until VAT is charged at some point, but not paid to the appropriate national authorities. Apparently false identities are used frequently, together with individuals that operate as 'front' people. In addition, it is also estimated that money laundering takes place, mainly through bureaux de change.

Department of Health:

Some patients who do not have the right to free treatment will evade paying for services, whilst patients will falsely claim a right to free prescriptions and general practitioners, opticians and dentists claim costs for patients that do not exist or who are no longer registered at the practice.

Department for Work and Pensions:

In the period April 2000 to March 2001, the security investigation service

identified 564 cases involving identity fraud, although it is not known how many identities were involved, the quantum of the loss of what is meant by identity fraud. Also, in the period between April 1999 and March 2000, it was estimated that £3 million was overpaid because of identity fraud. This was out of a total expenditure of £15,831 million, representing 0.02 per cent of the entire amount paid to claimants. A further £80 million was overpaid to people that gave false addresses.

Immigration and Nationality Department, Home Office:

Apparently around 50 fraudulent documents are found each month in Terminal 3 at Heathrow Airport, whilst it is estimated that it costs £35 million each year to process people that are caught entering the country with no right of entry from this Terminal.

Other forms of fraud are identified in Annex B of the Cabinet Study, some forms of which may be quantified in terms of lost revenue or the payment of fraudulent claims. Some forms of 'loss' include the detection of false identities when taking the driving test, for instance. In such circumstances, it is arguable whether the Driving Standards Agency suffers a loss, because payment is made in advanced in any event. Finally, it should be noted that most of the above acts cannot be described as identity fraud. Not only have the government failed to define what is meant by identity fraud, it has also sought to demonstrate a problem that does not exist by gathering various types of criminal acts together and asserting that these acts are collective examples of identity fraud. By comparison, it is instructive to note the problems relating to identity fraud in the United States of America, where such fraud is taking place at an increasing rate.¹⁴

Registration cards and identity fraud

Andrew Smith MP acknowledges in the Foreword to 'Identity Fraud: A Study' that 'we will never completely eliminate

identity fraud' and accepts that putting into place more rigorous processes for verifying the authenticity of documents used to validate identity can reduce fraud. A registration card is hardly necessary to undertake most of the very simple exercises that most people can undertake to authenticate the documents submitted by a claimant for services provided by both the public and private sectors. The government has already acted to help reduce money laundering by passing the Money Laundering Regulations 1993 (Statutory Instrument 1993 No 1933) and 2001 (Statutory Instrument 2001 No 3641), and Chapter 4 of the Study sets out the further steps that can be taken to reduce fraud without the use of a registration card.¹⁵ In this respect, a registration card will do no more than offer one more document that could be provided by an individual that is required to provide evidence of their identity. Indeed, the regulations that require an institution to 'know your customer' may in itself be causing problems – certainly for the future. Financial institutions require sight of original documents before opening an account or entering a transaction. Members of staff photocopy these documents and store them. The question is, what happens when original documents are lost? How does the institution know the documents are genuine? What checks, if any, do they carry out before opening an account? If they make checks, how do they obtain the consent of the individual to cross reference various databases? What security provisions are put in place to prevent employees or thieves from misusing documents that are photocopied and stored? In the private sector, the existence of CIFAS demonstrates that active measures have been taken to identify when fraudulent activities appear to be taking place, whilst APACS lists, in its paper 'Card Fraud The Facts 2004' the preventative measures that are taking place to reduce all forms of fraud by member organizations. On the face of it, the proponents of a registration card have both failed to

demonstrate how such a card will serve to reduce the fraud that has been identified in both the public and private sectors or to justify the cost of such a card in order to tackle such low levels of fraudulent activities. Finally, it seems odd that losses sustained by private organizations that are responsible for managing their own risks should be considered a reason for establishing a registration card of every person with the right to live in the United Kingdom.

Reducing crime

The consultation paper 'Entitlement Cards and Identity Fraud' accepts that it is debatable that a registration card will deter people from committing crime. It is hardly likely that a burglar will carry their own registration card with them when they enter a building with intent to steal – although they may use the identity of a third party in an attempt to hide their involvement in the crime. However, the introduction of a registration card is seen as being of a great help to the police. Mrs Jan Berry, Chairman of the Police Federation, emphasised that a registration card would enable police officers to verify the identity of an individual when they were stopped. Her evidence before the Home Affairs Committee emphasised this point in response to a number of questions,¹⁶ yet it was acknowledged in paragraph 2.15 of the consultation paper 'Entitlement Cards and Identity Fraud' that 'Identifying a suspect is not usually a problem for the police, that the vast majority of people they come into contact with are already known to them.'

To introduce a registration card to marginally increase the time it takes a police officer to undertake a check on the identity of a person they stop in the street (that is, providing the individual has their registration card with them and gives the police officer their permission to search the database) is hardly a good reason for introducing such a card. In addition, it is highly likely that the introduction of a registration card may

only serve to exacerbate the tension around the stop and search powers exercised by the police, as suggested by questions and comments by David Winnick, MP and an increase in racism, as put forward by Marsha Singh, MP. Similar concerns were made by Trevor Phillips, OBE, Chair of the Commission for Racial Equality,¹⁷ and Mr Gerald Vernon-Jackson of the Local Government Association, who expressed a concern in relation to what a registration card would do for the cohesion of the local community.¹⁸ Finally, no evidence has been adduced by the government to demonstrate that crime either does not take place or has been reduced in those countries that already have a registration card.

Illegal immigration

The government seem to argue that there is a perceived 'pull' factor based on the ease by which people can obtain access to such services as the National Health Service and the possibility of obtaining work, albeit illegally.¹⁹ Yet when dealing with applicants from Bulgaria and Romania recently, officials in the Home Office were prepared to override the legitimate concerns of visa staff locally, and permit large numbers of people into the United Kingdom with only the most tenuous claim for entry.²⁰ Given the mismatch between the policies followed by these two departments, it is not surprising that potential immigrants perceive a 'pull' factor towards the United Kingdom. By comparison, the Comptroller and Auditor General noted that only in 14% of cases was forged documentation a reason for refusing applications for visas.²¹ In defence of this proposition, Nicola Roche asserted, in her evidence to the Home Affairs Committee on 11 December 2003 (answer to question 5), that this would be remedied 'When we move to the compulsory phase, everybody who is legally here in the country would have a card. So those that were here illegally would very quickly be identified ...' It

appears, therefore, that the introduction of a registration card is justified to deter potential illegal immigrants from entering the United Kingdom, because they will need a registration card to obtain access to services once the registration card is compulsory. Those promoting the introduction of a registration card are clearly arguing that the registration process will prevent illegal immigrants where the registration process is universal, and entitlement to a wide range of services will be predicated on the production of such a card.

Illegal workers

One of the arguments used by proponents of the registration card is that its use will prevent people from working in the country without permission. Section 8 of the Asylum and Immigration Act 1996 makes it an offence for employers knowingly or negligently to employ people that do not have permission to work. The employer has a defence if they can establish that they were shown a number of documents that demonstrate the right to work and they believed the right to work was genuine. This section was recently amended (and came into force on 1 May 2004), and employers are now required to check and copy a number of designated documents before employing somebody. Even though this section has been amended to increase the duty on an employer to check and copy the relevant documents of a potential employee, the duty has remained the same since 1996. The introduction of a registration card will not alter the duty on the employer. The problem with employing workers illegally is not that a particular employer has failed to check whether a worker is eligible to work. The issue is simply that unscrupulous employers intentionally employ workers with no entitlement to work because they can do so at very little cost. The introduction of a registration card will not prevent employers from deliberately flouting the law, as

they have done in the past. The problem is not with the employment of illegal workers, but the failure of employers to check the employment status of workers that they employ and the failure of prosecuting authorities to enforce the law.

Providing services

The consultation paper *'Entitlement Cards and Identity Fraud'* suggested that both central and local government services might use the registration card as a basis to provide improved levels of service and at lower cost.²² Various witnesses have been questioned about the possible options during the hearings for the Home Affairs Committee on Identity Cards.

Local government

Whilst Mr Gerald Vernon-Jackson of the Local Government Association thought the linking of databases within government would be very useful, he did not consider a registration card would be of much use to local authorities 'because we do not spend a lot of time checking people's identity.' (Answer to question 241 in the report *'Entitlement Cards and Identity Fraud'*). Apparently a registration card will not affect benefit fraud, nor is identity an issue with respect to organized, large-scale fraud by landlords where identity is not an issue.²⁴ Mr Vernon-Jackson made the point, in his answer to question 250, that the registration card was targeting people at the margins of society, and no database addresses this particular issue. One of the problems that local government will face relates to the large number of people that they know change their address each year. For instance, 40% of the population on the electoral register in London moves every year (Answer to question 286). As for using a registration card for local services such as obtaining access to the library, Mr Vernon-Jackson indicated there was no need to spend time and money in confirming identity for a library service.

He pointed out, in answer to question 251, that not many library books are stolen, and the losses that are sustained does not cost large amounts of money.

The National Health Service

The Minister of State for Health considered, in response to question 549, that the introduction of a registration card would be 'a very helpful way and I think more efficient way for the NHS to establish entitlement for free NHS care.' However, this optimism must be tempered by the comments offered by Dr Vivienne Nathanson, Director of Professional Activities, British Medical Association, who remarked that the costs of introducing the bureaucracy would be greater than any savings made or convenience to patients.²⁵ Ministers have also suggested that the inclusion of medical information on a registration card would help hospitals, should they need emergency treatment. However, Dr Nathanson challenged this assumption in answering question 841 by noting that doctors could not rely upon such information, for fear that it would be out-of-date. With respect to the circumstances where a person received free treatment, witnesses to the Home Affairs Committee raised the dividing line between obvious emergency treatment that will be treated regardless of status and treatment that was not an emergency. In his answer to question 322, Mr Vernon-Jackson pointed out that it was in the interests of the general health of any given local population that people not entitled to medical treatment should receive treatment where they have TB. Dr Nathanson also gave an example of a similar dilemma, where an asylum seeker has been denied permission to remain in the country and is waiting to leave, had no money and was a diabetic. Either the National Health Service gave them insulin at almost no cost regularly, or the individual had to wait to go into a coma before being admitted to hospital before receiving treatment – for the same cycle to continue, having to go into a coma before they received expensive emergency treatment, rather than receive free insulin (Answer to question 829).

Miscellaneous issues

A number of related matters have been raised about the registration card, amongst which include the provisions for the protection of the data, which do not appear to be addressed adequately or at all.²⁶

Function creep, misuse and sharing of data

The consultation paper *'Entitlement Cards and Identity Fraud'* at paragraph 3.6 envisaged a very wide range of uses for the card. In response to this, the Information Commissioner expressed a concern that it would, for instance, be disproportionate to be required to show a registration card to rent a video (Answer to questions 210 and 213). An additional concern expressed by a number of witnesses was that the card would suffer from 'function creep' and a wide variety of bodies, both public and private would begin to insist that people show their registration card to obtain even the most innocuous of services. Of great worry will be the use to which such a database will be put by those authorities that have the right to obtain access to it. If the comments of the Surveillance Commissioner are indicative of the possibility of misuse with regard to covert surveillance, there is room for concern:

*'I am pleased to report that all 442 local authorities in Great Britain have now been inspected at least once. Although there have been considerable improvements in overall compliance with the provisions of the Police Act and RIPA since the Acts were introduced, there are indications that some public authorities are failing to maintain the required standards. The inspection process over the past year has revealed many examples of bad practice and quite basic errors.'*²⁷

In addition, individuals obtain access to databases without lawful authority for a variety of reasons. Some people are detected and prosecuted, as in the case of Leanne Thomas, a computer operator working in the control room at Gwent Police in Cwmbran who was caught

obtaining access to the criminal records of people she knew.²⁸ However, it is probable that many people that unlawfully obtain access to databases are not caught, and this is a serious worry that will affect any national database of people registered in the United Kingdom.

The Home Secretary illustrated a serious misunderstanding of the security issues surrounding the formation of a national registration database when he said 'Let me make it clear: no one has anything to fear from being correctly identified.'²⁹ Given the scale of the proposed registration database and the possible extent of the access to it, serious misuse is inevitable if it contains data associated with an individual's identity. As a result, people with perfectly good reasons for not being identified on such a database (such as employees of the security services, high ranking diplomats and people in sensitive occupations, to mention just a few categories), will be exposed to possible attack by terrorists and other groups of people that wish to effect violent methods to effect their purposes. This highlights the need by the government to provide urgent clarification of their proposals, since the misuse of some possible content could easily involve extreme risks for some groups of people.

Further, the issue of sharing data between government departments was discussed by Dr Chris Pounder in his evidence given to the Committee on Tuesday 15 June 2004, who expressed very serious worries about the lack of any consideration about how data would be shared, who would have access to the data and how the process was to be controlled. In a series of Frequently Asked Questions dated August 24 1996, Privacy International conducted a survey of a number of schemes from across the world, and a response to one of the questions indicated that a national registration card had, in effect, developed into an internal passport in most instances. It is to be expected that this will occur in the United Kingdom if such a card were to be issued.

Security and integrity of the database

Various witnesses for the government gave assurances with respect to the security and integrity of the database, even though it is envisaged that it will be available over the Internet.³⁰ The Home Secretary indicated in Parliament that the card 'will be the most reliable form of identity' whilst Nicola Roche mentioned that the database will be 'secure', 'confirm identity absolutely' and be the 'gold standard.'³¹ In addition, Chris Pond, Parliamentary Under-Secretary of State, Department for Work and Pensions indicated in response to question 553 that the database 'is going to be a lot more secure than the systems that we currently have in place.' No evidence has been offered to demonstrate that a large scale computer system can be safe or secure, both the Ministry of Defence and US Department of Defence have spent vast sums of taxpayer's money on trying to achieve this goal.³²

Further, Mr Desmond Browne, Minister of State for Citizenship and Immigration pointed out, in answer to question 630, that not only will the information held on the database remain forever, but also it will be 'clean.' A number of issues arise with the creation of any database, but their importance is heightened when the government intends to create such a large database that also records so much sensitive information. First, the registration process has got to be infallible if it is going to be a 'gold standard', yet mistakes will occur in the processing of the information, and attempts will be made to use false and counterfeit documents to register an entry. The integrity of the registration process is central to the creation of a database that is intended to be an accurate record of the individuals recorded on the database.³³ Furthermore, it is crucial that if such a database is created, that consideration is given to the basic principles of people, process and principles as pointed out by Geoff Llewellyn in answer to question 335. A number of examples were given by Ross Anderson as to how the registration process could

undermine the integrity of the database and thereby render it useless. His response to question number 351 merits quoting in full:

'A lot of care has to be given to the issue of pre-enrolment fraud. This is already a big deal and once we start putting chips in passports it will become worse. I am told that there was recently a gang exposed that was selling British nationalities to people in Pakistan, which was obviously of concern given that there are terrorists there about. The modus operandi was to put an advert in a newspaper in Britain offering a job for, say, a security guard at a slightly larger than usual wage, say, £7 an hour. Thousands of people applied, they filled in on the application form all the information that you need to apply for a British passport, and they were also asked whether they had got a passport. Out of that bundle you take some people who do not have passports and you fill in the passport application forms in their name with the photographs of the guys you want to get into the country; standard pre-enrolment fraud. You are not going to make that any more difficult when you bring in a chip. You may in fact increase the incentives for it and that has to be thought about very carefully.'

In addition, Mr Anderson also expects registration cards and passports to have the chip removed and a replacement added. This can occur to registration cards obtained improperly or where they are stolen. In addition, people will tamper with the chip itself, and the government can also expect the database to be manipulated.³⁴ Gwyn Prosser, in forming question 146, indicated that there are already reports that the ARC card issued to asylum seekers with biometrics is already being counterfeited, and it will not take long for the registration card to be attacked by criminals. A further problem of some significance is that the government insists the card can be used for a wide variety of purposes.³⁵ It seems the government intend to create a card for all seasons, which has a number of different functions, or is backed up by a single, relatively comprehensive database. Should the government decide

to introduce a national registration card, it will create a very valuable target that is worth undermining and will increase the damage to any individual whose data is compromised, as pointed out by Professor Thomas in answer to question 244.

The government places a great deal of reliance on the use of biometric measurements as proof of identity, but underlying assumptions need to be challenged, as Simon Davies, the Director of Privacy International pointed out to the members of the Committee in responding to question number 178. The government are assuming that biometric measurements are perfect – an assumption that is not demonstrated by the scientific evidence.³⁶ Worse still there is relatively little experience in the widespread deployment of systems involving biometrics and large population databases. Hence many of the claims being made can only be speculative and cannot possibly justify the expenditure of unquantifiable sums of taxpayer's money. These risks seem to have been recognized by the government, because it accepts the need to proceed incrementally and with caution. However, it is disturbing to see a costly national registration scheme continues to be heavily promoted before any real evidence has been collected to assess how much it will cost and how it will perform in practice.

The study carried out by Tony Mansfield and Marek Rejman-Greene clearly indicated that biometric measurements will not guarantee the verification of an individual, although they recommended that each individual should be required to submit flat prints of all fingers when registering on the national database, as well as a scan of both irises where available. The issues relating to the degree of certainty was discussed by Ms Claire McNab, the Vice-President of Press for Change in her evidence to the Home Affairs Committee, in which she indicated that the validation procedure would

not be able to indicate whether a particular biometric measurement was an exact match. Further, as pointed out by Trevor Phillips, OBE, Chair of the Commission for Racial Equality in his answer to question 796, biometric measurements, when rendered into digital format, can only provide a level of probability as to whether a scan matches a stored scan of a biometric measurement.

The accuracy of a biometric system of record is predicated on a number of factors that affect the machine that records and reads the scanned image of the biometric measurement. There are significant difficulties with the use of biometric measurements, including the range of tolerances, which are set by the manufacturer of a machine, to reduce false negatives and increase false positives, or vice versa. As explained by Tony Mansfield and Marek Rejman-Greene:

A false match rate measures the probability that a person's biometric matches the enrolment template of another person.

The false non-match rate measures the probability that a person's biometric fails to match their own enrolment template.³⁷

This is important, because no match is ever perfect. This is because the template is likely to be unique every time a biometric measurement is taken. Therefore the threshold that is set will determine the percentages of people that are identified as not matching their biometric measurements. The threshold setting may well differ for every machine used to check the biometric measurements on a card: thus a card reader in a bank may have a different threshold to a card reader in a shop, public library or car dealer. As a result, many people may find their card being rejected regularly, depending on the threshold setting on the card reader they are required to submit their card to. Furthermore, it should be noted that not everybody has a fingerprint or iris to scan. Manual workers and older people tend to have fingers that are worn,

and not only are the fingerprints of females more difficult to match than male fingerprints, but a greater proportion are poor or of very poor quality.³⁸

The introduction of biometric measurements increases the risk to the individual within society. The state already forces people that are arrested to have their fingerprints recorded by the police, whether they are charged with an offence or not. As a result, the police already have a substantial number of fingerprints on various databases around the country. Most of the records are of convicted criminals. This risk to the individual is caused by the erosion of our ability to control our own security. At present, one of the most powerful ways individuals have of avoiding being harassed by the police is to ensure that they do not have a record of the fingerprints of every person in the country. We leave our fingerprints in a wide range of places each day, and where every person's fingerprints are recorded in a national database, it will be very easy for a criminal to lift and plant fingerprints at the scene of their crime to frame innocent people or to deliberately mislead the police. As a result, a great deal of police time and expense may be spent following up planted fingerprints, and many innocent people could find themselves under suspicion.

Two further points need to be made in relation to the recording and use of biometric measurements. First, many of the biometric systems that exist to date do not apply any strict quality controls. Second, the template is based on the proprietary algorithms of the manufacturer, and these algorithms tend not to be divulged to a buyer.³⁹ This makes the entire process much weaker, because manufacturers have a penchant for secrecy, rather than agreeing to have their algorithms tested by the security community. This is called 'security by obscurity' and can lead to hackers breaking the algorithms before the manufacturer realises their machines have been compromised.

Further concerns

The debate about a national registration card has raised a number of further and relevant issues that the government have failed to address. These include:

- The difficulties faced by people who move frequently. The draft Bill sets out a duty to inform the custodian of the register of their new address, yet this has already proved to be a problem with the ARC card issued to immigrants (Answer to question 836).
- A registration card is not going to reduce fraud, because it is the degree of diligence that determines whether a transaction is valid or not, as indicated by Ross Anderson in answering question 357. Bearing in mind that levels of fraud can be reduced by other means, and that a national registration card will not reduce fraud to any great extent, it is highly unlikely that the card readers that

will be necessary will be paid for out of savings from fraud, as claimed by Chris Pond, Parliamentary Under-Secretary of State, Department for Work and Pensions in his response to questions 578 and 583. As the answer to question 551 indicated, the sums of money that are lost due to identity fraud are merely guesses, and the amount lost to fraud, even if true, is low in comparison to the size of the payments made by the state.

- The government is quick to point out that various governments in Europe have registration schemes in place, some of which date back to the fascist dictators of the twentieth century. However, the central database proposed by the UK Government is not comparable with similar systems operated by governments in Europe.⁴⁰
- There has been very little discussion about the legal risks relating to who

bears the responsibility if something goes wrong, as demonstrated by the case of Mr Derek Bond in 2003. Mr Bond, aged 76 at the time, was arrested and held in prison in South Africa for a number of weeks at the request of the Federal Bureau of Investigation, because the Bureau wrongly insisted that he was a person named Derek Sykes, who was wanted in connection with a scheme that defrauded people of millions of dollars.⁴¹ A further demonstration of the problems associated with the scanning of biometric measurements is provided by the case of Roger Benson and Miguel Espinoza from the United States of America. Roger Benson had his fingerprints scanned in Eugene jail after a policeman arrested him in relation to a motoring offence. Identix, a Californian corporation, manufactured the machine that was used to scan Mr

Smart Cards	http://www.govtalk.gov.uk/policydocs/consult_subject.asp?topics=62&order=publishdate&l1.x=19&l1.y=9 http://www.scnf.org.uk/
Citizen Information Project	http://www.statistics.gov.uk/registration/cip/asp
Office of National Statistics - Modernising Civil Registration	http://www.statistics.gov.uk/registration/whitepaper/default.asp
DfES and LA Social Services - National Child Database	http://www.computerweekly.com/Article126324.htm
DfES - Connexions card - 16 to 19 year olds - monitor and reward attendance at a place of learning	http://www.capita.co.uk/TextOnly/Sustainability/Social/ConnexionsCard.htm
Citizen Card - Age verification card	http://www.citizencard.com/
Immigration and National Directorate - IND card	http://www.ind.homeoffice.gov.uk/default.asp?PageId=3168
Criminal Justice Information Technology	http://www.cjit.gov.uk/bpm/index1.html
Criminal Records Bureau - Identity authentication	http://www.crb.gov.uk/downloads/Corp_and_bus_plan_2003-2004.pdf
UKPS - Biometrics	http://www.ukpa.gov.uk/identity.asp http://www.ukpa.gov.uk/images/UKPS_plans_03-08.pdf
National Benefits Project - One stop shop	
NHS - Access to medical records	http://www.nhsia.nhs.uk/text/pages/pr/06032001.asp
Home Office - Entitlement Card	http://www.homeoffice.gov.uk/comrace/identitycards/
Office of National Statistics - Citizen Database	http://www.statistics.gov.uk/registration/cip.asp
Security Industry Authority - Identity authentication	http://www.the-sia.org.uk/sia-at-a-glance/what-is-the-sia.asp
IDEA comments re: Performance and Innovation Unit Privacy and Data sharing Report	http://www.idea.gov.uk/transformation/piu-datasharing.pdf
Cabinet Office - Better use of personal data	http://www.strategy.gov.uk/output/page3897.asp
Metropolitan Police - Exchange of information	http://www.met.police.uk/publications/crime_disorder/cad1.htm
NS&I - Money Laundering risk	http://www.timesonline.co.uk/article/0,,5-939844,00.html
Department for Constitutional Affairs - Data Sharing	http://www.dca.gov.uk/foi/sharing/index.htm http://www.dca.gov.uk/foi/sharing/toolkit/infosharing.htm http://www.dca.gov.uk/consult/datasharing/datashareresp.htm

Table 1: UK initiatives relating to registration databases, source: EURIM

Benson's fingerprints. These machines replaced paper fingerprint cards. However, the system for ensuring that every record uniquely identifies the person whose fingerprints are scanned was not adequate. As a result, there is a propensity for operators of the machine to make mistakes, causing the records of one person to be incorrectly linked to another person. This occurred when another individual by the name of William Lee Kellogg had his fingerprints scanned some months later. Mr Kellogg was subsequently found guilty of a number of offences, but his conviction was incorrectly entered on Mr Benson's record. Mr Benson was questioned by a police officer at a later date, and was subsequently arrested for attempted murder amongst other charges, and was detained for 43 days in the maximum security block at Yreka County Jail. Whilst in prison he was assaulted by inmates, he was also ostracised by a number of people he knew and the local press publicly humiliated him. Mr Benson had to overcome serious obstacles when investigating why his record was incorrect, although he subsequently took legal action against the manufacturers of the machine and the local state authority. In the case of Mr Espinoza, in August 2002 Medford City Council informed him that they had obtained a copy of his criminal record, and it seemed that he had been convicted of criminally negligent homicide three months before. His liquor license was subsequently revoked. The local newspaper subsequently printed articles that referred to him as a convicted killer. As a result of the media attention, he lost his cliental and he had to sell his restaurant. When the court records were examined, it transpired that Mr Espinoza's criminal record had in fact been replaced by that of a convicted felon by the name of Franklin Eugene Crews. Mr

Espinoza's record had the same identification number as that of Franklin Crews. Although these examples are restricted to the records held by the police in the United States, it will only be a matter of time before this problem occurs in other databases.⁴²

- The practical problems of entering every individual that lives in the country has not been addressed, and Mr Gerald Vernon-Jackson of the Local Government Association expressed reservations as to the efficacy of the database in his response to question 317. He considered there would be serious problems with including people on the database that have no fixed abode, or where an individual has mental health problems, for instance. He pointed out that there is already a difficulty with finding such people, and a central database would not resolve such an issue. Ms Vicky Chapman, Head of Law Reform at the Law Society responded to question 165 by commenting that the government had yet to demonstrate the introduction of a register that was proportionate to the mischief. In addition, whilst the registration card is voluntary in theory, it becomes compulsory in practice. This will occur in two ways. First, people renewing their driving licences and passports will be made to submit to the requirements of registration, even if they do not want a registration card.⁴³ Second, the Information Commissioner pointed out, in answer to question 200, that individuals will have no choice but to use the card if certain transactions cannot be undertaken unless a registration card is produced. These concerns strike at the very heart of the constitutional worries expressed by Ms Shami Chakrabarti, Director of Liberty in response to question 155. Perhaps it is the response of Mr Gerald Vernon-Jackson to question 327 that sums up the views of many people, when he said that 'we are

not happy with the compulsory card and if you have got three billion to spend on this, I think we could find other ways of spending it: social services and housing.'

- The government have been active in the creation of a number of databases for different purposes. A range of examples are included in Figure 1 of this article. Of particular interest are the comments made by the Information Commissioner in his answer to questions 233 and 234 in relation to a proposed Population Register. This register, it seems, will record similar information to that contained in the national registration register, yet officials have failed to indicate what, if any, relationship each will have with the other. More intriguing will be the relationship between these registers and those set out in the annex.⁴⁴
- The Home Secretary has indicated that where an individual successfully registers a false identity, that false identity will remain on the database and cannot be changed. He seems to imply that if the person attempted to register with another identity, then they would immediately be revealed as having registered a false identity in the first place. The assumptions that underlay this argument are somewhat disturbing, given that one of the reasons for introducing a national registration database is to prevent identity theft. Where an individual successfully registers a fraudulent identity, all they will need to do is use the registered identity to collect state benefits, whilst entering and leaving the country at will on their other (real or forged) identity that is not recorded on the national database (Answers to questions 613 and 635 by the Home Secretary). There has been no technical systems analysis to identify how the registration scheme will work.⁴⁵

Identity in a digital world

The tenuous nature of the evidence submitted by proponents of a national registration database does not demonstrate that the theft and misuse of personal identity has reached such proportions as to require the expenditure of vast amounts of taxpayer's money on a project that will not only not work properly, but will exacerbate the problems for individuals with registration cards. If a national registration database is created, it will follow that both the private and public sectors will require individuals to submit their registration card as a means of identifying themselves. As a result, such a card will become mandatory to carry, even if it is not compulsory.

If there is to be a rational and honest debate about the introduction of a national registration database, consideration must be given to the balance between the individual and the state. The problem with the introduction of such technology is that it will strengthen the danger of political repression, as Simon Thomas has said, a registration card 'reduces citizen to cipher' and the proposals by the government 'forgets that the Government should be subject to the people and instead makes the people subject to the Government.'⁴⁶ Just because some police officers think the introduction of a national registration database will be of benefit to them, it does not follow that a democratic society should accept such arguments. A free democratic society only remains free if it safeguards its liberty, and it is arguable that the provisions of clause 24(1) of the draft Bill provides a power for the police and immigration service that severely undermines the liberties of subjects. This clause permits the police and immigration service to check the biometric measurements of fingerprints recorded in the national database if it has not been possible to identify them in any other way. If a national database is set up, not only will it be inaccurate and open to abuse by the powerful, but also it will greatly erode the liberties that subjects currently

enjoy within the present constitutional framework. The Home Secretary stated, in response to answer 654 before the Home Affairs Committee that 'Democracy is about pressure being brought to bear by the population for things they want.' What he should have gone on to say was 'or do not want.' The government of Australia made identical claims about the popularity of the introduction of a national registration card when it was introduced in the 1980s. However, once people began to understand the full ramifications that accompanied the introduction of such a scheme, the majority of the people rejected the idea. Despite being rejected by the Senate for a second time in April 1987, the government pressed ahead with the Bill after the election that took place in July 1987. The people of the United Kingdom should learn a lesson from the experience of the Australian people, because the Bill would have been passed, despite overwhelming opposition, but for a flaw in the Bill itself.⁴⁷ The Home Secretary may utter comments about democracy, but his actions to date do not show that he will be swayed by reason or large sections of the population that do not want to see the introduction of a national registration card. It seems he has not learnt Mrs Thatcher's lesson in respect of the poll tax.

It should be remembered that where 'identity' cards exist, they could be used to exterminate hundreds of thousands, if not millions of people. Both the Jews of Europe and Tutsis of Rwanda have reason to fear the 'identity' card. In Rwanda, the difference between a Hutu and a Tutsi could only be determined by the record of this information on identity cards issued before 1994. Since the annihilation of around 800,000 Tutsis, Rwanda has abolished identity cards.⁴⁸ There is only one way for the government to achieve its stated aim of recording every person entitled to live in the United Kingdom accurately, and that is to tattoo their registration number on their body. As flippant and repulsive as this suggestion may be, no other method will be as effective, nor be so secure.

To end this article on a positive note, it is well to observe that digital databases containing personal information will continue to proliferate. Individuals have very little control over the use to which their personal information is put, and the possibility that criminals can use the personal information on such databases to carry out crime is of real concern, as described in detail by Kevin D Mitnick and William L Simon in their book 'The Art of Deception' (Wiley Publishing, 2002). The creation of a national registration database will be yet another application to add to an infrastructure that is already inadequate. The introduction of a national registration database is a classic displacement activity. As the proponents have demonstrated to varying degrees, simpler and cheaper solutions already exist and are currently being implemented to remedy the problems that a national registration system is supposed to address. Of greater importance is to educate the populace about how they can protect their identity in a digital age, and to ensure that the remedies available to them to rectify any misuse are effective.

References

- ¹The author thanks Dr Brian Gladman and Ross Anderson for their invaluable comments on the first draft of this paper, and for further suggestions made by Dr Gladman.
- ²Legislation on Identity Cards consultation paper (Cm 6178) published on 26 April 2004 available in electronic format from <http://www.identitycards.gov.uk>.
- ³A glance through the House of Commons Hansard Debate on Identity Cards for 5 November 2003 demonstrates the attention paid to the arguments, especially by those opposing the introduction of a national registration card. In an article published in Counsel June 2004 pp 15 – 16, Des Brown MP failed to offer any arguments to substantiate any of the claims for national registration cards propounded by the government, and continued to assert that registration cards would reduce 'identity' fraud, and stated that such a card will be

a 'convenient and secure' way of providing identity when obtaining access to both public and private services.

⁴See Stephen Mason "Validating identity for the electronic environment" The Computer Law and Security Report Volume 30, Number 3, 2004, 164 – 170 for a discussion; available in electronic format at <http://www.stpaulschambers.com>.

⁵In response to question number 125, Nicola Roach stated '...the onus is clearly on us to demonstrate the benefits so that people do feel it is enhancing their liberties and protecting their identity, rather than something that they actually want to object to.' Uncorrected transcript of oral evidence. [General note: references to questions posed by the Home Affairs Committee that appear in this article are all references to the uncorrected transcript of oral evidence].

⁶Steven A Camarota The Open Door How Militant Islamic Terrorists Entered and Remained in the United States, 1993-2001 (Centre for Immigration Studies, Centre Paper 21) available in electronic format at <http://www.cis.org/articles/2002/Paper21/terrorism.html>.

⁷Mistaken identity: Exploring the Relationship Between National Identity Cards & The Prevention of Terrorism' Interim Report, April 2004, examples taken from the table included in this report. Available in electronic format from <http://www.privacyinternational.org>.

⁸See appendix B to 'A National Identity Card for Canada? Report of the Standing Committee on Citizenship and Immigration' House of Commons, Canada, October 2003 for the preliminary research in relation to identity cards across the world by the Department of Citizenship and Immigration Canada.

⁹Jennette Gayer, Policing Privacy: Law Enforcement's Response to Identity Theft, CALPIRG Education Fund, May 2003, p8 available in electronic format from <http://calpirg.org/CA.asp?id2=9791&id3=CA&>.

¹⁰Entitlement Cards and Identity Fraud A Consultation Paper (Cm 5557, July 2002) paragraph 3.9.

¹¹Available in electronic format at http://www.cardwatch.org.uk/pdf_files/cardfraudfacts2004.pdf.

¹²For an example in the United States of America, see Bob Sullivan 'ID victims face touch bank fights' MSNBC 18 February 2004 available in electronic format at <http://msnbc.msn.com/id/4264051/> viewed on 16 March 2004; see also United States of America v James Rinaldo Jackson (2002) in which Jackson's sophisticated exploits were set out in an appeal against the sentence by Deborah S. Batta, District Judge of the District Court for the Southern District of New York. The appeal was held before Newman, Winter, and B. D. Parker, Jnr, Circuit Judges on 1 October 2003 (Docket No 02-1338), decision available in electronic format at <http://www.caselaw.findlaw.com/data2/circs/2nd/021338p.pdf>.

¹³Cabinet Office Identity Fraud: A Study (July, 2002), Annex B. CIFAS is a system for preventing fraud. CIFAS information is processed by the following fraud prevention agencies: Experian Limited, Equifax plc, Callcredit plc and MCL Software Limited. Web site: <http://www.cifas.org.uk>.

¹⁴"Report: Federal Trade Commission Overview of the Identity Theft Program" September 2003 available in electronic format from <http://www.ftc.gov/os/2003/09/timelinereport.pdf>; "Federal Trade Commission - Identity Theft Survey Report", September 2003 available in electronic format from <http://www.ftc.gov/os/2003/09/synovatereport.pdf>.

¹⁵The way financial institutions have implemented these regulations provides an insight to the rigid mentality normally associated with a Stalinist or fascist regime. In one instance, a retired manager of a bank, having worked for the bank for 60 years, was required to identify himself in order to invest in an income bond (Liz Phillips, 'Identity crisis for elderly' Daily Mail Wednesday October 29 2004 page 52. The experience of this retired bank manager is replicated across the country every day.

¹⁶Minutes of evidence taken before the Home Affairs Committee on Identity Cards, Tuesday 10 February 2004, uncorrected transcript of oral evidence.

¹⁷Minutes of evidence taken before the Home Affairs Committee on Identity Cards, Thursday 11 December 2003, Tuesday 10 February 2004 and Tuesday 15 June 2004, uncorrected transcripts of oral evidence.

¹⁸Answers to questions 254 and 313 Tuesday 10 February 2004 uncorrected transcripts of oral evidence.

¹⁹Entitlement Cards and Identity Fraud (Cm 5557, July 2002) paragraphs 3.13 and 3.14.

²⁰Comptroller and Auditor General 'Visa Entry to the United Kingdom The Entry Clearance Operation' HC 367 Session 2003-2004 17 June 2004 paragraphs 2.36 – 2.37 and Appendix 7. See also minutes of evidence taken before the Committee of Public Accounts, Monday 21 June 2004 'Visa Entry to the UK: the Entry Clearance Operation' uncorrected transcript of oral evidence.

²¹Comptroller and Auditor General 'Visa Entry to the United Kingdom The Entry Clearance Operation' Box 16, page 26.

²²Paragraphs 3.3 to 3.8.

²⁴Answers to questions 242 and 255 uncorrected transcript of oral evidence. See also the range of sources used by officers investigating housing benefit fraud Susan Gray 'If you're cheating, we'll catch you' Evening Standard, London Jobs, Monday 19 July 2004 pages 1 and 4.

²⁵Answer to questions 819 and 821 uncorrected transcript of oral evidence.

²⁶See generally the evidence of Richard Thomas, Information Commissioner, uncorrected transcript of oral evidence, Tuesday 3 February 2004.

²⁷Annual Report of the Chief Surveillance Commissioner to the Prime Minister and to Scottish Ministers for 2003-2004 (HC 668) SE/2004/109, p 10. See also the Testimony of Stephen Moore, Economist of The Cato Institute before the US House of Representatives Subcommittee on Immigration and Claims Judiciary Committee on A National Identification System, May 13, 1997 in which function creep and misuse are discussed. Available in electronic format at <http://www.house.gov/judiciary/677.htm>.

²⁸ Duncan Higgitt, 'Data offences admitted' *The Western Mail*, July 6 2004 at <http://icwales.icnetwork.co.uk/0100news/0200wales/page.cfm?objec-tid=14397197&method=full&siteid=50082>. See also Bob Sherwood 'Criminals cash in on personal details' *Financial Times* Thursday July 15 2004 page 6, where it is reported that there are particular problems relating to employees obtaining information without authority in police forces, the Inland Revenue, the Department for Work and Pensions and the Driver Vehicle Licensing Agency.

²⁹ House of Commons Hansard, 11 November 2003, column 173.

³⁰ *Entitlement Cards and Identity Fraud A Consultation Paper* paragraph 3.5.

³¹ House of Commons Hansard Debates for 11 November 2003 column 173; Nicola Roche answers to questions 9, 16, 18, 112 and 134 and Stephen Harrison, Head, Identity Card Project Unit, Home Office answer to question 132 in relation to the ability of the police to read a chip securely, uncorrected transcript of oral evidence.

³² Dr Brian Gladman is fully aware of the exercises undertaken by both agencies in this respect, and the extent of the money spent on such activities.

³³ Information Commissioner in answer to question 226, uncorrected transcript of oral evidence; Professor Thomas and Professor Anderson in answer to question 351, uncorrected transcript of oral evidence. See also Tony Mansfield and Marek Rejman-Greene, *Feasibility Study on the Use of Biometrics in an Entitlement Scheme*, version 3, February 2003, Centre for Mathematics and Scientific Computing, Chapter 3 relating to the technical problems that can enable an individual to be enrolled under two separate identities.

³⁴ Answer to question 390, uncorrected transcript of oral evidence. See also Professor Thomas, who pointed out that 'No card based chip has yet proved to be completely unable to be broken open if you are prepared to apply sufficient resources to it. Although you may have to wreck a few chips in the process, once you have actually determined how to

break the encryption on the chip and you can understand the workings you can make your own.' Answer to question 394.

³⁵ *Entitlement Cards and Identity Fraud*, Chapter 3.

³⁶ Tony Mansfield and Marek Rejman-Greene, *Feasibility Study on the Use of Biometrics in an Entitlement Scheme*, version 3, February 2003, Centre for Mathematics and Scientific Computing; Keith A Rhodes Chief Technologist Applied Research and Methods, 'Information Security Challenges in Using Biometrics', United States General Accounting Office, GAO-03-1137T; Nancy Kingsbury, Managing Director Applied Research and Methods, 'Border Security Challenges in Implementing Border Technology', United States General Accounting Office, GAO-03-546T; NIST Standards for Biometric Accuracy, Tamper Resistance, and Interoperability, November 13, 2002.

³⁷ Tony Mansfield and Marek Rejman-Greene, *Feasibility Study on the Use of Biometrics in an Entitlement Scheme*, version 3, February 2003, Centre for Mathematics and Scientific Computing, paragraph 3.1.

³⁸ Tony Mansfield and Marek Rejman-Greene, *Feasibility Study on the Use of Biometrics in an Entitlement Scheme*, version 3, February 2003, Centre for Mathematics and Scientific Computing, paragraph 3.2; NIST Standards for Biometric Accuracy, Tamper Resistance, and Interoperability, November 13, 2002 page 7.

³⁹ Tony Mansfield and Marek Rejman-Greene, *Feasibility Study on the Use of Biometrics in an Entitlement Scheme*, version 3, February 2003, Centre for Mathematics and Scientific Computing, paragraph 3.2; Keith A Rhodes Chief Technologist Applied Research and Methods, 'Information Security Challenges in Using Biometrics', United States General Accounting Office, GAO-03-1137T page 3.

⁴⁰ Answers to questions 173 (Simon Davies, Director, Privacy International) and 795 (Dr Chris Pounder, editor *Data Protection and Privacy*), uncorrected transcript of evidence.

⁴¹ See answer of Professor Martyn Thomas, UK Computing Research Committee, to question 366, uncorrected transcript of evidence.

⁴² See <http://www.benson-vs-identix.com>.

⁴³ See also the answer by Ms McNab to question 806, uncorrected transcript of evidence.

⁴⁴ See also the evidence of Mr Len Cook, Registrar General for England and Wales, uncorrected transcript of evidence, Tuesday 27 April 2004.

⁴⁵ See Ross Anderson, 'Security Engineering A Guide to Building Dependable Distributed Systems' (Wiley Computer Publishing, 2001) Chapter 6 for an introduction to some of the problems.

⁴⁶ 5 November 2003 House of Commons Hansard Debates for 5 November 2003 column 291WH

⁴⁷ Roger Clark, 'Just Another Piece of Plastic for your Wallet: The 'Australia Card' Scheme, *Prometheus* 5, 1 (June 1987); republished in *Computers & Society* 18, 1 (January 1988), and published with an Addendum in *Computers & Society* 18, 3 (July 1988) available in electronic format from <http://www.anu.edu.au/people/Roger.Clark/DV/OzCard.html>.

⁴⁸ Remarks by the President of the United States of America, H.E. BILL CLINTON, to genocide survivors, Assistance Workers, and US and Rwanda Government officials Kigali - March 25, 1998 N° 42 (04/1998) available in electronic format at <http://129.194.252.80/catfiles/0962.pdf> viewed on 25 June 2004; Richard Sobel, 'The Demeaning of Identity and Personhood on National Identification Schemes' *Harvard Journal of Law & Technology*, Volume 15, Number 2, Spring 2002, 319 – 387, see Part VI Historical Abuses Through Identification Systems and Documents for a brief introduction to the misuse of identity cards.

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Stephen Mason is a practicing barrister at St Pauls Chambers (www.stpaulschambers.com) stephenmason@stephenmason.co.uk