PRIVACY INTERNATIONAL

UK Identity Cards and Social Exclusion

Table of contents

Summary

This report investigates the probable effect of the proposed UK national Identity Card system on people who are marginalised, who suffer social disadvantage or exclusion, and those who are disabled. The work focuses on the biometrics element of the government's proposals (specifically facial recognition, fingerprinting and iris scanning).

The Report provides a specific assessment of the recently published biometrics trial conducted by the UK Passport Service (UKPS), and compares these findings with other research.

On the basis of the UK Government's research, more than four million disabled people will probably encounter significant problems when using the proposed combination of biometric techniques. Extrapolating from this research, more than a million disabled people will suffer grave and perhaps insurmountable problems accessing public services, while more than 60,000 disabled people will not be able to register their biometrics in any way with the proposed identity scheme.

We draw the government's attention to potential issues of racial discrimination. Research has established that black people have more difficulty enrolling their facial biometric, iris, and fingerprint than other races. This does not seem to have been anticipated in the Race Relations Assessment conducted for the purposes of the Bill.

Biometric readers are unable to deal with exceptional people, and are therefore inherently discriminatory. This is a source of potential exclusion, and is therefore unjust. The UKPS trial establishes that any attempt to enforce a universal biometric system will invite challenges under the Disability Discrimination Act.

The increased level of intrusion necessary to achieve biometric success for disabled people, and the consequent loss of dignity they may suffer, renders the proposed identity scheme vulnerable to challenge under Article 8 (privacy) of the European Convention on Human Rights.

The results obtained from the 2005 UKPS study do not vary a great deal from earlier studies of biometric performance. We therefore conclude that the inherent problems of disadvantage for disabled people will not improve significantly in the foreseeable future (ten to fifteen years).

On May 25th, 2005, following the reintroduction of the Identity Cards Bill, the Home Office Minister Tony McNulty went on record saying "A secure compulsory national identity cards scheme will help tackle illegal immigration, organised crime, ID fraud, terrorism and will benefit all UK citizens" [emphasis added]. This was a provably false statement. It is inevitable that identity cards of any type, and especially those using biometrics, will lead to members of society being excluded from benefits and activities that any eligible person in the UK should expect to enjoy. The serious potential for this social exclusion is unjust. The number of people that might be affected is potentially huge.

Biometrics – background information

Biometrics (from the Greek meaning "life measuring") is, for the purposes of this report, the computer-based method of identifying a person by such physiological characteristics as fingerprints, facial recognition, iris scanning, retinal imaging, and hand geometry, and behaviour related characteristics such as voice-recognition, signature recognition and key-stroke patterns. The three methods being considered by the UK government, and recently trialled in the UK Passport Service's (UKPS) study (see later), are facial recognition, iris scanning, and fingerprinting.

Any form of identification is a measure of probability – how likely is it that the person is the person they claim to be? Humans have evolved to be reasonably good at identifying each other by reference to faces and other characteristics. Various factors such as stress, attraction, and inattention can reduce the accuracy of a human identification, as identity parades of criminal suspects have shown. Biometrics aims to reduce this subjectivity by using computers, but it still faces the same problems as humans: there is a chance that the identification will be wrong. It can be wrong in two ways: it can give a proportion of false positives, known as the False Match Rate (FMR), wrongly identifying someone, thus giving improper access to whatever is being protected by the biometric system; or it can give false negatives, the False Non-Match Rate (FNMR), wrongly denying access to someone who is entitled to it. These two rates are in tension. Statistically, the way to avoid false positives entirely is to let no-one pass, and vice versa. The balance between false positives and false negatives is usually in the hands of the person commissioning the system. These people generally want as few false positives as possible, though users of the system actually want as few false negatives as possible. It is the issue of false negatives that concerns us with the Identity Card Bill 2005.

When using a biometrics system, there are two points at which data can be improperly acquired: (a) the point at which the data are initially collected to be put on the system as the baseline by which subsequent identification will be made, known as enrolment; and (b) the point at which the person needs to verify their identity to the system. Any biometrics system therefore has a Failure to Enrol Rate (FTER), where the data are not collected, or are improperly collected, and the aforementioned False Non-Match Rate (FNMR) where the data presented for verification are wrongly rejected. Both these rates present major problems for any government wishing to use a system intended to cover the whole population, as small percentage rates translate into large numbers of people. Also, it is clear from the UKPS trial that some groups of people have a much higher FTER and FNMR than others, leading to unfair discrimination against people with disabilities, black people and people over 60 years of age.

Assumptions

Before going further, we will identify the assumptions that have been made in the compiling of this report. Where the assumptions are specific, references to documents leading to those assumptions are quoted.

First, we accept that any identity card system is intended to exclude some people, and include others. It is accepted that it is a legitimate function of government to do this in relation to such things as access to healthcare or financial benefits. However, it is far from legitimate for government to exclude anyone who is otherwise entitled to be able to access these things through the introduction of a system that unfairly marginalises some members of society.

Second, we note that there is no single definition of social exclusion. The definition of social exclusion used here is "any unfair restriction or removal of access to the range of social goods and activities that other members of that society do, or could, take for granted". This is a deliberately wide definition which would include healthcare and social security, but also the smaller things such as being able to join a library or video rental shop.

Third, we assume that identity cards will become a major part of future access to goods such as state financial benefits, finding a job, and health care, and semi- and wholly- private goods such as lending libraries and video rental stores. We also assume that, either as a result of direct legislation, or convenience, the use of identity cards will become necessary for other goods such as: access to such professional services as solicitors and accountants; access to financial services such as opening a bank account; and accommodation, either rented or bought, temporary or permanent.

Finally, we start from the assumption that it is unacceptable for a nationwide compulsory ID system to allow for false negatives in the pursuit of minimising false positives. One person falsely denied access to the things that society values, is significantly more unjust than another person falsely given access to those same things.

Social exclusion is a consequence of introducing ID cards

Identity cards pose a risk of social exclusion for members of certain identifiable groups within society, and others not so easily categorised. These groups include:

- People with physical and learning disability – the UK Passport Service Biometric Enrolment Trial Report had 750 or more disabled subjects. In each biometric tested, this group did significantly worse than others in enrolling their biometrics, both in terms of accuracy and time taken to attempt enrolment and verification.
- People with mental illness – there has been no research published on this as yet, but it is possible to assume that, for instance, people with depressive or paranoid illnesses will be averse to using identity card systems, especially those requiring biometrics.
- The elderly – once again, the UKPS trial showed that those above the age of 60 had more trouble enrolling biometrics. However, the need to use an identity card at all is likely to deter some elderly people from coming into contact with services that require it.
- People of certain races – in the UKPS trial, black people had more difficulty enrolling their facial biometric, iris, and fingerprint than other races. This does not seem to have been anticipated in the Race Relations Assessment conducted for the purposes of the Bill.
- People of certain religions – those that are required by their faith to wear head or face coverings will have difficulty enrolling facial biometrics. Verification of these biometrics in public places may lead to embarrassment or offence, leading to avoidance of places where this may be necessary.
- The homeless will face difficulties in knowing where to attend for biometrics enrolment, as they do not have an address to which an appointment can be sent, even if the government knows of their existence. This may not be an issue only for the homeless – it is likely that many people have set up new lives in order to escape what they perceived as intolerable living conditions elsewhere. Their "back-stories" may be superficially acceptable, but will not hold up to scrutiny. In order to verify that they are who they say they are, they will probably have to get in touch with any family they have. Whilst it is accepted that this may be a positive thing in some cases, it removes the element of choice from the individual, and it may be far from good in a situation in which the person has fled from, for example, an abusive relationship. This raises issues of privacy and control over one's own life.

- There is a whole range of unanswered questions around those who do not fit into neat "Male" and "Female" categories, such as transvestites, transsexuals and intersex. It is difficult to see how ID cards will not lead to difficulties for them. For instance, people in these categories may have a legitimate reason for living life with two identities. Embarrassment and offence could be caused by the imposition of Identity Cards.

It must always be kept in mind, as outlined above, that any identity verification is only a measure of the probability that the person is who they say they are. The more data that are collected about a person in order to verify their identity, the more robust the assumption should be that the holder of the identifier (for instance, an ID card) is the person represented by it.

The government is, by proposing the introduction of machine-readable identity cards with biometric data to be acquired by machines, trying to increase the probability of a true positive identification by reducing the discretion that humans naturally bring to any identification process. But biometrics, because they are a measure of probability, can never accurately identify people that fall outside the range of "normal" as defined by the system administrators.

Biometric readers are unable to deal with exceptional people, and are therefore inherently discriminatory. This is a source of potential exclusion, and therefore unjust. Technology is not even able to deal adequately with the range of behaviour exhibited by people who fall within the parameters of the machinery. For instance, in the UKPS Biometrics Enrolment Trial, one woman was not recognised by the facial recognition system because she had tucked her hair behind her ears between the enrolment and verification procedures. Given that the two procedures were on the same day, only a few minutes apart, this demonstrates that the machines are not adequately equipped to deal with simple changes in appearance. Facial recognition and iris scanning systems are unforgiving of individual foibles: Many failures of the system came about because the subjects could not or would not conform to the strictures of the system. Some of the problems with the data collection technology may ultimately be fixed, but it seems that for the foreseeable future (certainly the next ten to fifteen years) there are going to be many people who cannot reliably enrol or verify their biometrics.

These examples of the failure of biometrics sampling techniques, though persuasive, are only part of the reason why identity cards are unjust, and will lead to social exclusion. As identity cards become compulsory, the burden will fall disproportionately upon those at the lower end of the social scale and those who need regular access to health care. It is highly likely that a person's access to social security or NHS treatment will be tied in to provision of an ID card. Not to have a card, apart from being punishable by disproportionately large fines, will leave people unable to receive benefits, access necessary healthcare, contact social services, or secure accommodation. If, as has been suggested, the ID cards are going to cost significant amounts of money, people on low incomes may be forced to hide from the requirements to have an ID card. Unable to afford the card, and unable to afford the consequent fines, the danger exists of creating an underclass, vulnerable to those who prey on the poor and sick in any society and yet afraid to contact the authorities because of the implications of doing so.

The burdens, though, do not lie merely at the application stage. Illness and poverty are more likely to make the biometric data stored on the Register go out of date more quickly than expected. This means that people will have to update their biometrics more often, or risk being falsely rejected by a card reader, possibly at the doctor's surgery. It is not ruled out in the Bill that updating the data will be cost-free, thus the potential exists, once again, for the most vulnerable – the sick, the poor and the elderly – in society to be unjustly burdened by a scheme which has few benefits for them.

Fear of false rejection, and the embarrassment and trouble from having to prove identity by other means, will lead a proportion of people avoiding situations where the card may be necessary. Some may have biometrics that take longer to verify than average to enrol or verify. Even if biometric data are not required, the length of time people with certain characteristics – such as arthritis or disability – might take to place their card in or on the reader could conceivably lead to sufficient discomfort that they avoid such situations, especially in busy places. There is a wealth of anecdotal evidence that some elderly people avoid using ATMs because of this, and so are significantly affected by bank-closures; how much worse, then, if they begin to avoid such places as doctor's surgeries or benefits agencies.

One group that has been completely ignored to this point are those with mental illnesses. These people, arguably some of the most marginalised in the country, stand at risk of further exclusion from the introduction of identity cards. Very often, contact with officials (defined broadly here as doctors, social workers, police, and other state functionaries) is difficult for people with conditions such as schizophrenia, depression, and bipolar affective disorder.

These conditions make people prone to mislay many items, including identity cards. Very often, the physical condition of the person will be affected by the illness, making recognition more difficult. The response of someone with a mental illness to false rejection of their identity card may be to withdraw further from the world (a very clear example of social exclusion), or to become angry and possibly violent towards the card reader and people around it. This could have the effect of enforced hospitalisation and treatment under the Mental Health Act, which could be classed as yet another form of social exclusion, with the concomitant difficulty in obtaining suitable housing and employment at a later time.

Overview and assessment of the UKPS trial

This section is not intended to be a complete analysis of the figures in the UKPS Biometrics Enrolment Trial, but merely a representative sample, indicating how many people could be adversely affected by the introduction of identity cards.

Summary

The UK report involved a biometrics trial of 10,000 volunteers, including a weighted sample of 750 disabled people. An attempt was made first to enrol a digital face scan, fingerprints and the iris of each participant. Following this stage, an attempt was made to verify these details by taking new scans and comparing them against this enrolment data.

This procedure mirrors the ID card proposals, where an applicant must first enrol his biometrics in a national register, and then subsequently have them verified whenever access is needed to public services such as the NHS.

The UK report found that 20 per cent of disabled people were unable to verify their fingerprints once they were registered on the database (4 percent could not enrol their fingerprints in the first place, and were then excluded from the process). 39 percent of disabled participants were unable to register their iris on the system. And while 98 percent of disabled participants were able to register their face, only 48 percent were able to subsequently verify their face against the database.

The iris verification success rate for non-disabled participants (96%) was significantly higher than that for Disabled participants (91%) while iris enrolment resulted in a 39% failure rate for disabled participants compared with a 9-12% failure rate for others. Black participants failed to be enrolled 19% of the time; this was 5% more of a failure rate than the next lowest, the East Asian population which had a 14% failure. Older participants failed 22% of the time at enrolment

While there was a 3.91% failure rate for disabled participants attempting fingerprint enrolment (highest amongst physical impairment and learning disabled) there was only a 0.7% failure rates for others. 2% of blacks could not be fingerprinted. 45% of blacks required multiple attempts

Discussion

According to the Department for Work and Pensions, there are around 10 million disabled people in the UK. In the UKPS trial, 0.62% of the disabled sample group were unable to register any biometric. This means that around 62,000 disabled people in the UK will probably not be able to able to enrol any biometrics (a figure consistent with previous predictions). However, this is the tip of the iceberg.. Around 20% of those disabled people who were able to enrol fingerprint data were then unable to verify their data, translating into around two million people who would have the same problems. This analysis applies to each of the biometrics.

This calculation could be carried out on each of the groups identified as having difficulty enrolling data – including those over 60 and black people. On the basis of the government's own figures, more than four million people – or around 1 in 12 of the adult population – will find that identity cards are not a benefit to them, but a burden.

Conclusion

In the assumptions stated at the beginning of this report, we identified that we needed to prove that a significant number of people would be falsely denied access to things that society regards as important if the proposed identity card scheme were to be declared unworkable. The government's own figures for disabled people prove this to be the case, showing that a minimum of eight million people would be the victim of False Non-Matches. A more detailed analysis of the figures would produce a much higher number of disadvantaged people. There are also figures that have not yet been collated, such as those who would not use any service that required use of the identity card, for instance, people with mental illnesses. However, lest anyone is tempted to disregard the figures as being relevant "only" to minorities, it is worth noting that no group scored 100% for any data. False Non-Matches occurred even for young, healthy white people.

The introduction of identity cards of any description is likely to directly contribute to more social exclusion than it does already. Whether that exclusion takes the form of not joining a video rental shop, or not renting a TV, or the more serious forms which lead to otherwise avoidable poverty and untreated sickness, it is unjust. The plan to introduce biometrics makes the chances of such exclusion that much greater, because the complexity of the system is likely to lead to many more false negatives being generated, and so many more people being afraid to utilise services that require such identity verification.

The reasons given by the government for introducing identity cards do not support the risk of people being significantly disadvantaged by them. As stated above, if only one person were to be wrongly excluded from those goods that the average person regards as necessary or desirable as a result of the introduction of identity cards alone, that would be unjust. However, this is likely to happen many times over. A government's first duty is to ensure that its citizen's are justly treated. The damage which may accrue from those things the government seeks to avoid – crime, fraud and terrorism – even if they were to be amenable to the introduction of identity cards, is far smaller than that which is likely to accrue from the introduction of the cards themselves. The government should accept, on the basis of the published evidence, that the proposed system is unworkable and unjust.