

DISABILITY SPECIALIST GROUP



THE BRITISH COMPUTER SOCIETY

British Computer Society Disability Group

Response to the Home Office Consultation regarding Legislation on Identity Cards - the use of biometrics in the enrolment process

1. The British Computer Society

- 1.1. The British Computer Society (BCS) is the industry body for Information Technology Professionals and is the only Chartered Engineering Institution for Information Technology (IT.) With members in over 100 countries around the world, the BCS is the leading professional and learned Society in the field of computing and information systems.
- 1.2. It exists to provide service and support to the IT community, including IT practitioners and employers of IT practitioners. The BCS also acts to generate public awareness and appreciation of the concomitant social and economic benefits IT can offer.
- 1.3. The BCS was formed in 1957 to establish and maintain appropriate standards of education and experience for persons engaged in the profession or practice of IT and Computing or those entering upon courses of study in Computing and allied subjects. It was incorporated by Royal Charter as a Chartered Body in 1984 and became a Chartered Engineering Institution in 1989. In 2004 the BCS was licensed to award Chartered Scientist status and also introduced a new chartered status of Chartered Information Technology Professional.

British Computer Society Disability Group

Response to the Home Office Consultation regarding Legislation on Identity Cards - the use of biometrics in the enrolment process

submission date 19th July 2004

brl/bcsdg/biometrics/190704

2. The BCS Disability Group

- 2.1. The Disability Group is one of approximately 50 Specialist Groups within the BCS. It focuses on the role of IT in giving disabled people a better quality of life. The Group's aims include: encouraging the IT industry to consider the needs of disabled people at the design stage; identifying and correcting shortfalls in the provision of equipment; offering a forum to stimulate new IT developments in this field.
- 2.2. It exists to: provide disabled people with the ability to influence decisions made in the fields of IT and disability; identify and develop ways in which IT can benefit disabled people; encourage the means for disabled people to achieve the independence to learn, communicate, control their environment, work and play; further employment opportunities for disabled people; raise general awareness about the ways in which IT can assist disabled people; encourage and assist in the formation of similar organizations nationally and internationally and co-operate with relevant national and international organizations.
- 2.3. The Group is currently working with other academic, commercial, governmental and voluntary organizations involved in IT and disability to create a new national umbrella forum wherein issues of common ground may be discussed and actions determined.

3. IT Can Help

- 3.1. Information Technology Can Help (ITCH) is a programme managed by the BCS Disability Group. It was started in 1994 to offer computer assistance to disabled people by providing a network of skilled volunteers who visit them in their homes and at other locations such as day centres, to offer disabled free assistance with IT problems and solutions. Currently it has over 250 volunteers, covering over 40 counties in the UK.

4. CAVEAT

- 4.1. This submission is not the full submission from the BCS in response to the Home Office's public consultation on Legislation on Identity Cards. It should be regarded as complimentary and supplementary to any detailed such submission which the BCS may have made, be making, or be intending to make.

British Computer Society Disability Group

Response to the Home Office Consultation regarding Legislation on Identity Cards - the use of biometrics in the enrolment process

submission date 19th July 2004

brl/bcsdg/biometrics/190704

5. The Scope of the Submission

- 5.1. This submission relates to a) consideration of the use of biometrics in the enrolment process and b) the impact assessment of the proposed legislation on other existing legislation, specifically the Disability Discrimination Act and the proposed Disability Discrimination Bill.
- 5.2. It should be considered specifically in relation to:
 - a. Chapter 3 Wider Issues Not Included In The Draft Legislation Biometrics 3.22 - 3.25
 - b. Annex C Regulatory and Race Equality Impact Assessments Regulatory Impact
- 5.3. This submission is made under the invitation in Chapter 4, paragraph 4.2.

6. General Observations

- 6.1. The purpose of this submission is not to enter into the debate about the concept or introduction of ID cards per se. There are issues around the nature of the technologies intended to be used, along with concerns about security and privacy, which have been or are being addressed elsewhere.
- 6.2. Our contention is simply that if the proposed scheme, or indeed any other such scheme is to function as intended and to be of benefit, rather than of hindrance, to disabled people, there are certain fundamental issues that must be properly addressed.
- 6.3. The BCS's Disability Group, which along with other professional and charitable bodies with interests in IT and disability, have become concerned at the possibility that hundreds of thousands of people may face potentially serious problems in both the creation and use of a national ID card scheme should the current proposals and piloting fail to take account of how disabled people will or will not be able to enrol in the scheme.
- 6.4. This submission is a synthesis of views expressed by members of the BCS' Disability Group, ITCH and colleagues in related organizations who have offered contributions.

British Computer Society Disability Group

Response to the Home Office Consultation regarding Legislation on Identity Cards - the use of biometrics in the enrolment process

submission date 19th July 2004

brl/bcsdg/biometrics/190704

- 6.5. It has also been developed from a meeting held in June 2004 which representatives of the BCS' Disability Group, The Thalidomide Trust and the RNIB had with the Home Office's Identity Cards Programme Team. This was an extremely useful meeting and we would like to place on record our appreciation to the Home Office for that opportunity to discuss our concerns and to acknowledge the positive response we have had from them
- 6.6. The Home Office Identity Cards Programme Team has agreed to maintain contact with the BCS's Disability Group, and the other participants, as the design phase progresses. We welcome this collaboration.

7. Accessibility and Inclusivity

- 7.1. Accessibility and inclusivity are the twin key concepts underlying the rationale for our submission, We are naturally concerned about the issues of how disabled people will or will not be able to participate in the enrolment for and use of the proposed ID cards and also how they will or will not be able to access services, buildings etc where access is controlled by various biometric scanning or reading devices.
- 7.2. We can envisage situation where a particular issue might arise - i.e. where linking a card with services or benefits might need special consideration for those with disabilities. This could include situations of carers acting as a proxy, or where carers have to be in attendance simultaneously with the individual whose identity is to be validated, hence requiring two sets of relatable identity validation.
- 7.3. We note and welcome the fact that the Home Office has acknowledged that it would be helpful to set out somewhere that it is aware of the issues of an ID card for people with disabilities and is considering how to ensure that the scheme is an inclusive one. We await confirmation of the how and the when with interest.

8. Awareness Training

- 8.1. The issue of disability awareness training both for those involved in the enrolment process and for those people and organisations who would be verifying identity using the scheme has not in our view been addressed.

British Computer Society Disability Group

Response to the Home Office Consultation regarding Legislation on Identity Cards - the use of biometrics in the enrolment process

submission date 19th July 2004

brl/bcsdg/biometrics/190704

- 8.2. We wish to emphasize our belief that training is and should be a key issue to be addressed.

9. Exceptions

- 9.1. The draft legislation, and the proposed scheme itself assumes that there will be some categories of person who will be legally exempt from either the need to use an ID card, or, to submit to the requirements of the general enrolment process. This will become of greater importance should the scheme become compulsory, or, should the use of an ID card be linked to the entitlement to receive services or benefits etc.
- 9.2. We believe that there will be a need to look at adding to the current list of exceptions as assumed by the draft legislation, as the design team builds the scheme processes. Whilst there are many manifestations of a disability, there will be a series of generalities which will need to be considered. These will encompass not only biometric enrolment and biometric verification but also other parts of the scheme process e.g. physical access to machines or sites.
- 9.3. Some of the content for this list of exceptions which require further consideration will come from the consultation on the draft Identity Cards Bill. We suggest that the Disability Rights Commission may be a useful umbrella organisation to help consider and orchestrate the disability aspects of this list of exceptional cases.
- 9.4. Associated with the above considerations is a need for further research and piloting.

10. Biometrics - general considerations

- 10.1. In the wider debate about proving personal identity there is a need for focused thinking about how usable or otherwise the proposed technology will be for many hundreds of thousands of members of society.
- 10.2. There is a recognised issue in IT projects generally: the temptation to be seduced by technology at the expense of practical considerations.

British Computer Society Disability Group

Response to the Home Office Consultation regarding Legislation on Identity Cards - the use of biometrics in the enrolment process

submission date 19th July 2004

brl/bcsdg/biometrics/190704

- 10.3. There is much detail in the ID card proposals about using latest biometric technology to crack a security problem – but in so doing the technology may be throwing up new problems for a significant percentage of the population.
- 10.4. The emphasis on biometric technology such as fingerprint, iris or facial recognition raises significant issues for disabled people, although not always in the same, or to the same extent. This emphasis also means the initiative may risk falling into the trap of focusing on the technology rather than the users – a well known cause of problems in computing projects.
- 10.5. The Home Office has set out its proposal to potentially record three biometrics (iris, finger and facial biometric) and additionally, there may be a fourth - digital signature. However, we understand that at the verification stage, according to the level of security required, a biometric may or may not be checked according to the needs of organisations e.g. a visual check being the most common form but where higher cost transactions might be taking place the biometric check will usually be made. Different biometrics might also be used in different situations.
- 10.6. We see the key issues for disabled people as being around biometric enrolment and biometric verification, plus the ergonomics and physical location of the equipment used for enrolment and verification.

11. Enrolment

- 11.1. Whilst many disabled people will be able to participate using the standard approaches, subject to any ergonomic (access) requirements being met by the enrolment sites, some individuals will not be able to record some or any biometrics (e.g. individuals who are missing limbs or have certain visual impairments) or the recordings may be “fuzzy” (e.g. those with motor difficulties who cannot maintain a stable position.)
- 11.2. Many people, e.g. those with cerebral palsy, motor neurone disease etc, may have little control of their muscle movement and will find it very difficult to hold their head or fingers still long enough for a facial, iris or fingerprint recognition device. Similarly they may be unable to record a digital signature. Certain types of visual impairment may mean that an iris (or retinal) scan will not register anything and thus not be an option. Similarly, those without upper limbs or fingers will not be able to supply a fingerprint - or possibly just not a complete set of fingerprints.

British Computer Society Disability Group

Response to the Home Office Consultation regarding Legislation on Identity Cards - the use of biometrics in the enrolment process

submission date 19th July 2004

brl/bcsdg/biometrics/190704

- 11.3. The nature of a person's disability may change over time e.g. eyesight or motor control may fluctuate and probably deteriorate after enrolment. In some cases, the condition may vary in severity from day to day.
- 11.4. It would appear that hearing impairment is not an issue for consideration in biometric recording, but, it might become an issue when considering the wider usage of the cards, for instance in the reading of cards by machines. It might be useful for the card to show that the carrier is hearing impaired and therefore needing text based information, as well as audio.
- 11.5. We would expect to see software and the associated optical, calibration, input and processing devices designed and engineered in such a way that there will be some degree of flexibility and robustness to compensate for the variables described above.
- 11.6. We understand that the Home Office's position is that it would be necessary to have a means to assess whether someone is truly unable to record a biometric, before offering any alternative method on enrolment. However, we do urge that the provision of a non-biometric option should be available as of right to those people, so that they are not disadvantaged.
- 11.7. We welcome the Home Office's recognition that there will be a need to consider who might use the non-biometric version of the ID card and would urge that certain categories of disability should be identified and granted the necessary exception. See also our comments at 9.1 - 9.3 above. The fact that a person is unable to record a biometric would have to be recorded, potentially on the chip, and we consider that this should be acceptable.

12. Verification

- 12.1. If verification is made dependent on one or more biometrics, which an individual may not have, or be able to supply, because of the nature of the disability, this could potentially lead to some kinds of exclusion, from being able to apply for a passport to high-value transactions such as obtaining a mortgage.

British Computer Society Disability Group

Response to the Home Office Consultation regarding Legislation on Identity Cards - the use of biometrics in the enrolment process

submission date 19th July 2004

brl/bcsdg/biometrics/190704

- 12.2. The nature of a person's disability may change over time e.g. eyesight or motor control may fluctuate and probably deteriorate after enrolment. In some cases, the condition may vary in severity from day to day. This may make verification against the card difficult.
- 12.3. Similar issues will arise for disabled people who cannot verify their biometric(s) when renewing an ID card.
- 12.4. There will be an impact from the choice of format of the card on those with disabilities e.g. there may be a benefit for some individuals from having a contactless card when using the card to verify identity.

13. Technical Considerations

- 13.1. We consider that it should be a fundamental tenet of the design, engineering and manufacture of all of the components of the enrolment process that consideration should be given at each stage of the development to the accessibility requirements of disabled people.
- 13.2. We consider that the same principles should apply to the systems and devices used in the verification processes.
- 13.3. In regard to facial, iris or fingerprint scanning, we would argue that the pattern recognition software or possibly optical scanning devices should be capable of compensating for distortion caused by a person's inability to keep their head or hands still in one position for long enough, and still be able to produce an acceptable recognition of the intended individual's biometrics.
- 13.4. We would expect to see the software and the associated optical, calibration, input and processing devices designed and engineered in such a way that there will be some degree of flexibility and robustness to compensate for the variables described above.
- 13.5. We would urge that advice is sought from appropriately qualified sources of expertise in the fields of: pattern recognition; human-computer interaction; artificial intelligence and assistive technologies at each stage in the design and specification processes.

British Computer Society Disability Group

Response to the Home Office Consultation regarding Legislation on Identity Cards - the use of biometrics in the enrolment process

submission date 19th July 2004

brl/bcsdg/biometrics/190704

14. Ergonomics

- 14.1. We have concerns over the ergonomics of the enrolment and verification process, in terms of how and where the equipment will be sited. These issues are in essence the same ones as apply to physical access to sites, buildings etc for disabled people generally, but they must be taken in account in this context as well.
- 14.2. If ID cards are intended to be used in conjunction with other forms of access control or as part of another identification system e.g. by being inserted into card readers or scanned over an e.g. infra red device, then we believe that it will be necessary address the question of how disabled people will be able to use them.
- 14.3. The positioning of recognition devices and card readers also needs careful thought, and so does the nature of the process, e.g. does it require physical contact or not? These issues will be relevant to the ability of people who are wheelchair users, visually impaired or have motor control disabilities to engage with the processes.
- 14.3. People with visual impairments will also face the problem of focusing their eye in the right place in an iris scanner. This means iris recognition units might need some form of audio device to help people line their eyes up to the unit properly.
- 14.4. Wheelchair users will have trouble if a reading device is e.g. at conventional counter height or otherwise outside their reach, unless the devices are portable and can be brought to the person, or, unless the method of reading is non-contact, e.g. by using an infra red or induction technology.
- 14.5. Similar problems could be faced by people affected by thalidomide who may have upper limb damage, or, others, where they may not be have full or partial motor control in their arms and hands which may restrict their ability to activate a reader or sensor.
- 14.6. We would urge that appropriate specialist advice be sought at each stage in the design and specification processes.

British Computer Society Disability Group

Response to the Home Office Consultation regarding Legislation on Identity Cards - the use of biometrics in the enrolment process

submission date 19th July 2004

brl/bcsdg/biometrics/190704

15. Piloting

- 15.1. We note that the pilot is being organised geographically around 6 major urban areas and that the scope of the UK Passport Service biometric trial is using a sample of 10 000 volunteers, of whom 1000 have a disability.
- 15.2. We also note and welcome the fact that the sample of 1,000 disabled volunteers has been identified with the assistance of various national bodies, including the RNIB and RNID. The sample breakdown being 350 visually impaired, 100 hearing impaired, plus 350 with other physical disabilities and 200 with learning disabilities. We consider that the size of this sample may be insufficient from which draw any accurate conclusions. However, we recognize that the piloting is also being conducted using public access and the final outcome may produce additional information from disabled participants.
- 15.3. The BCS and Thalidomide Trust, along with the RNIB, have asked to be involved in this trial and are currently in discussion with the trial organisers. Also, we will be using some volunteers to participate in the public access provision and we would expect to be able to provide additional commentary when the results of the piloting are to be analysed.
- 15.4. Because of the obvious accessibility issues, we would urge that there should be a representative sample of disabled people in each location and covering several types of disability - it may be that the selection will have to be managed and even perhaps the size of the samples extended to ensure this. The BCS and other organisations would be able to assist in this via members or clients volunteering.
- 15.5. Our specific area of concern here lies in the degree to which the pilot will be able to properly reflect the kinds of circumstances which disabled people might face when attempting the enrolment process - specifically, the ergonomics and the practicalities of using the intended biometrics.
- 15.6. We would argue that further work will be required around piloting the use of biometrics by disabled, including the ability to verify after a period of time when the nature of the disability might have changed.
- 15.7. We have concerns about the promotion and registration process for participation in the piloting, which does not seem to have been particularly well publicised, other than via the Home Office website.

British Computer Society Disability Group

Response to the Home Office Consultation regarding Legislation on Identity Cards - the use of biometrics in the enrolment process

submission date 19th July 2004

brl/bcsdg/biometrics/190704

15.8. We believe that more could have been, and should be, done to enable people with hearing impairments to be able to access the telephone hot line if they wish to participate in the public access trials. There appears to be no information to confirm that this is the case.

16. Legislative Impact Assessment

16.1. We note that in Annex C of the published consultation document, there is reference to certain aspects of regulatory impact assessments having been carried out. However, we are surprised and concerned that no such impact assessment has been conducted vis a vis the current and proposed disability discrimination legislation, viz: the Disability Discrimination Act 1995 and the Draft Disability Discrimination Bill 2004.

16.2. In addition, there are various Regulations, Statutory Instruments and Codes of Practice, published jointly by the Government and the Disability Rights Commission, which may impact upon the proposed Identity Cards legislation.

16.3. We observe that the Disability Discrimination Act would be a useful starting point to consider the impact of the scheme on individuals with a disability and that the Disability Rights Commission should be consulted formally on this.

16.4. We recommend that an impact assessment on the above legislation and related Codes of Practice etc be carried out in conjunction with the Disability Rights Commission.

17. Future involvement

17.1. We note that the programme is in the very early design stage and that organisations are being encouraged to contribute to make sure the process is capable of catering for the people they represent. There is a lot of work still to be done on designing this process. Associated with these is the need for further research and piloting. We confirm that we are willing to play a role in assisting with that process.

17.2. We will be prepared to offer additional input by way of clarification or detail on any specific points contained within this submission.

British Computer Society Disability Group

Response to the Home Office Consultation regarding Legislation on Identity Cards - the use of biometrics in the enrolment process

submission date 19th July 2004

brl/bcsdg/biometrics/190704

18. Publication

18.1. The BCS and the BCS's Disability Group welcomes the content of this submission being published and the sources quoted.

19th July 2004

**Brian R Layzell MBCS CITP; MIHM; MRSH
Chairman
British Computer Society
Disability Group**

**The BCS Disability Group
PO BOX 8176
CHELMSFORD
CM3 1YT**

**TEL: 01245 363 993
email: disability.grp@bcs.org.uk**

**The British Computer Society
1, Sanford Street
Swindon
Wiltshire
SN1 1 HJ**

**tel: 01793 417417
fax: 01793 480270
email: bcshq@hq.bcs.org.uk
website: www.bcs.org.uk**

British Computer Society Disability Group

Response to the Home Office Consultation regarding Legislation on Identity Cards - the use of biometrics in the enrolment process

submission date 19th July 2004

brl/bcsdg/biometrics/190704