

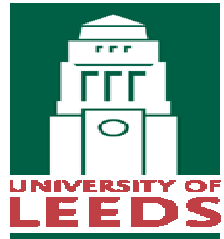
The Future of Forensic Bioinformatics



The
Nuffield
Foundation



Agenda - Wednesday



1020

Session One

1100

Tea / Coffee

1115

Session Two



1300

Lunch

1345

Session Three



1500

Tea/ coffee

1515

Session Four

1630

Concluding discussion

1700

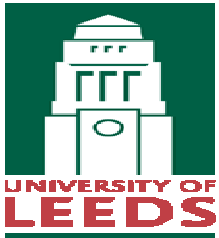
Close



1800

Reception followed by dinner at 1900.

Agenda - Thursday



0945

Session Five

1115

Tea / Coffee



1130

Session Six

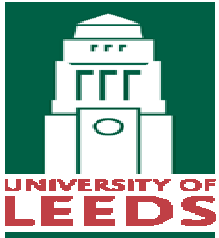


1300

Close & Lunch – Trip to FSS

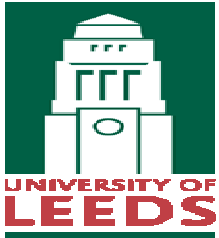


Aims, Outcome and Process



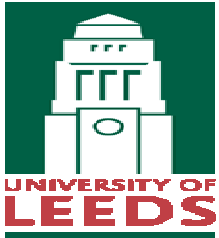
- Four expert meetings:
 - Integrity and integration (January)
 - Evidence and assessment (March)
 - Internationalisation and exchange (May)
 - Testing with international experts the outcomes of the first three events against, as far as may be practicably foreseen, the parameters of the restricted ‘margin of appreciation’ applicable to forensic bioinformation

Aims:



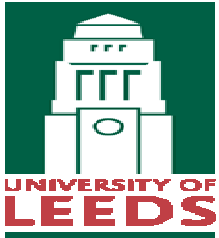
- Series of structured (and necessarily short) discussions on the issues.
- Maximum participation by all in identifying the options for resolving each issue, relevant sources of data and precedents.
- Clearly identify those issues where a consensus has been reached or may be possible or where this is not possible, to clarify the extent and significance of any disagreement.

Aims, Outcome and Process



- Record of meetings (not verbatim) on the project website (recording – Chatham House Rules)
- Comments on those records – as statements of amplification, support and dissent together with suggested areas for research or further consideration – (authorship can be again be anonymous if required)
- A final record of this process –a description of the possible parameters – both as a publication to mark the end of this project and hopefully a waymark for others grappling with the issues ⁶

Aims, Outcome & Process



- NOT writing Volume II of Nuffield Council on Bioethics – but complementary – and informed by that report and continuity of involvement



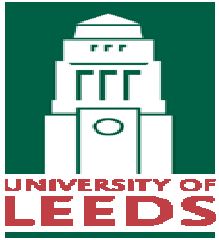
- NOT a reaction to '*Marper*' – but hopefully the project is timely now that the law is to be clarified



- NOT an occasion when participants need to state opinions for the record or be bound by ideas they simply want to test.

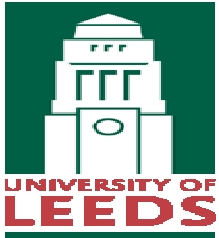


Please remember:



- There is a great deal of ground to cover
- Important that all viewpoints and views are captured for the record
- Need to stick to the agenda and the key issues within that agenda
- Opportunity for reflection, comment and suggestions post-meeting
- The organisers have never done anything so ambitious before and your help is greatly appreciated!

Session One: Background



- **Science:**

- significant developments through 90s (slowed?... Why?... Good/bad?).
- New scientific developments: characteristics... ethical/ efficacy/ legality?



- **Technology:**

- automation; miniaturisation.
- New uses of databases (exchanges/ new searches)

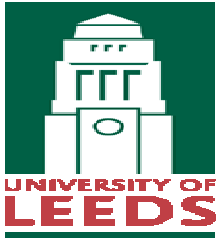


- **Ethics:** (newfound?) focus on ethics:

- Nuffield Council 2007
- Ethics Group 2007
- Genewatch/ HGC (?)



Session One: Background



- **Public/ political debate:**

- New political interest?
- Public 'ignorance' diminishing



- **Media interest:**

- Good/ bad....
- Misrepresentations and confusions
- Heightened expectations?



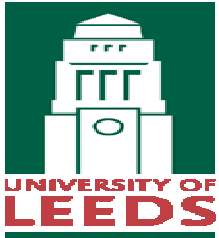
- **Economics:**

- Public sector finance pressures
- Evidencing cost-effectiveness



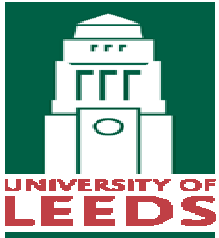
- **Law: -**

The Law - UK



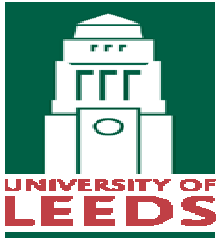
- Legislative reform & case law repeatedly:
 - expanded list of those from whom a sample may be taken;
 - downgraded the authority required to sanction and perform sampling;
 - permitting samples and profiles be retained indefinitely
 - increased access to the database (and uses for DNA/NDNAD);
- Legislative provisions introduced to allow DNA to be taken, stored and searched **BUT** NDNAD established without specific (its own) legislation. ¹¹

Legislative Developments



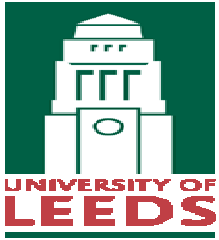
- **Police and Criminal Evidence (PACE) Act 1984**; non-intimate sample could be taken, upon authorisation of a Superintendent, if reasonable grounds to suspect donor was involved in serious arrestable offence and their DNA would tend to confirm or disprove their involvement.
- **Criminal Justice and Public Order Act 1994**; redefined mouth swab as 'non-intimate' so permitting these samples to be taken without consent. Also downgraded 'serious arrestable offence' to 'recordable' offence.
- **Criminal Evidence Act 1997**; can demand attendance at station to take sample – retrospective sampling...
- BUT – still not permanent retention...(unless convicted)

Problems Arise



- Cases – *R v B/ R v Weir* – ‘matches’ in cases where DNA should NOT have been retained.
- Appeal to House of Lords (unlawful evidence) admitted anyway (‘interests of justice’ arguments).
- HMIC 2000 – ‘guesstimated’ 50,000 such samples unlawfully retained due to inefficiencies (so this was probably going to happen....)
- Need swift change to law in order to ensure no repeat – and make the ‘unlawful’ samples held ‘lawful’...

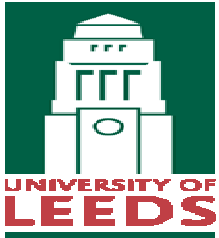
Criminal Justice and Police Act 2001



- s.79 downgraded 'Superintendent' to 'Inspector';
- s.80(2): intimate samples taken by registered nurse;
- s.80(6) insufficient samples retaken;
- s.81 ss(1) & (2): can search against NDNAD;
- **s.82 samples indefinitely retained regardless of whether charge resulted in disposal or acquittal**; ss.2: an individual who is not a suspect, may provide a sample voluntarily for elimination. This can be entered onto the NDNAD if the individual consents in writing (irrevocable);
- s.84 removed restrictions on use of samples taken under Terrorism Act 2000 to allow their use for purposes in s.82



Further Developments



- [Criminal Justice Act \(CJA\) 2003, s.10](#); permitted non-consensual taking of DNA upon [arrest](#) for recordable offence. Samples to be retained on NDNAD and speculatively searched and used for the prevention and detection of any crime, the investigation of any offence or the conduct of any prosecution **regardless of outcome of arrest offence.**

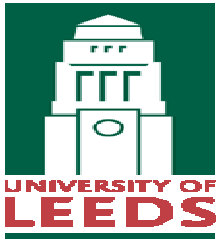


- Also removed 'in police detention' as requirement, ahead of 'mobile DNA kits' as with mobile fingerprinting, and 'supermarket holding centres' etc..



- [Serious Organised Crime and Police Act 2005](#): identification of deceased persons/ body parts, to assist coroners in suicides, accidents or mass disasters.

Police Powers 2009....



- **PACE s.63:** Police can take non-intimate DNA without consent from all those arrested for 'recordable' offences



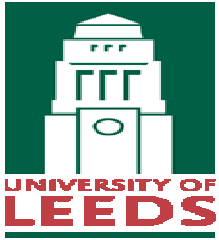
- **PACE s.64:** police can retain the DNA sample indefinitely to be used "for purposes related to the prevention or detection of crime, the investigation of an offence or the conduct of a prosecution."



- Volunteers/ witnesses/ victims with consent.
- Minors – no need for consent if arrested – parents can consent otherwise.

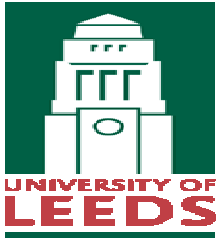


S & Marper



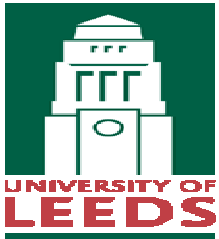
- Already worked its way through UK courts to House of Lords.
- Applying to have records wiped after acquittal/NFAd
- Claimed breached privacy rights (Article 8) and also discriminatory (Article 14)
- HoL (almost) unanimously – IF breached privacy, then slight and was justified in fight against crime.
- Law pre-CJA 2003 which extended yet further police powers to take samples/ prints/ photos.

ECHR: Article 8



- 1. Everyone has the right to respect for his private life...
- 2. there shall be no interference by a public authority with the exercise of this right except such as is in accordance with the law and is necessary in a democratic society ...for the prevention of disorder or crime...
- Privacy has a broad interpretation...no exhaustible definition.

S & Marper at ECtHR



- DNA profiles, samples & fingerprints all ‘personal data’ within the meaning of the Data Protection Convention.



- ECtHR previously distinguished between retention of DNA/ fingerprints in view of potential for future use of genetic material.



- Considered DNA samples, profiles & prints separately. Common ground that fingerprints do not contain as much information as DNA



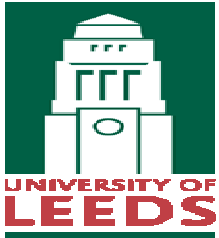
- Decision to review this issue.

ECtHR: Fingerprints

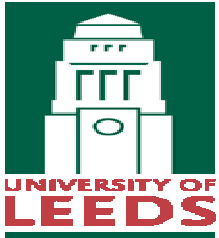


- FPs contain external identification features much in the same way as photos or voice samples – the same general approach should then be followed.
- FPs objectively contain unique information about the individual allowing identification with precision in wide range of circumstances.
- Thus capable of affecting privacy and retention without consent cannot be regarded as neutral or insignificant.

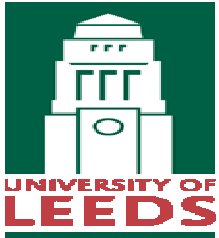
ECtHR: Fingerprints



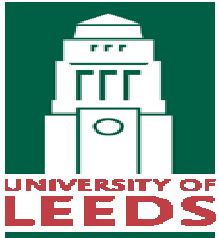
- *“The court accordingly considers that the retention of fingerprints on the authorities’ records in connection with an identified or identifiable individual may in itself give rise, notwithstanding their objective and irrefutable character, to important private-life concerns.” (para.85).*
- *“in determining the question of justification, the retention of fingerprints constitutes an interference with the right to respect for private life.” (para.86).*



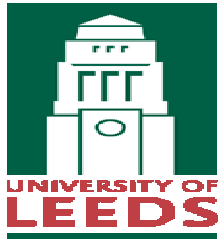
- *“the protection afforded by Article 8... would be unacceptably weakened if the use of modern scientific techniques in the criminal justice system were allowed at any cost and without carefully balancing the potential benefits of the extensive use of such techniques against important private-life benefits.”* (para.112)



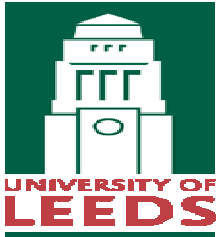
- *“the Court acknowledges that the level of interference may be different for each of the three different categories of personal data retained. However, such an indiscriminate and open ended regime.... calls for careful scrutiny regardless of these differences.” (para 120)*
- *“the mere retention and storing of personal data by public authorities, however obtained, is to be regarded as having direct impact on the private-life interest of an individual concerned, irrespective of whether subsequent use is made of the data.” (para 121.)*



“the question...remains whether such retention is proportionate and strikes a fair balance between the competing public and private interests. In this respect, the Court is struck by the blanket and indiscriminate nature of the power of retention in E & W.” (para 118/9)

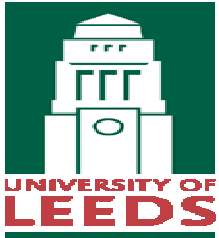


- *the Court finds that the blanket and indiscriminate nature of the powers of retention of the fingerprints, cellular samples and DNA profiles of persons suspected but not convicted of offences, as applied in the case of the present applicants, fails to strike a fair balance between the competing public and private interests and that the respondent State has overstepped any acceptable margin of appreciation in this regard.*



“Accordingly, the retention at issue constitutes a disproportionate interference... and cannot be regarded as necessary in a democratic society.” (para 125).

Marper and After



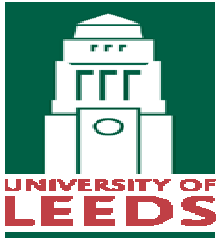
Marper and the 'global trajectory' of forensic bioinformation: a lesson from history:

- *A testament to the crime solving power of DNA technology is the fact that no government, having established a forensic DNA Database, has ever reversed course and reduced the scope of inclusion for that database. Expansion of criteria for database inclusion has been the only direction taken by jurisdictions in amending or updating their forensic DNA laws. (Asplen 2005)*



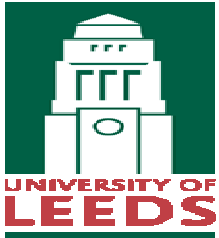
- *The prospect of ‘rolling back’ the NDNAD and the removal of large numbers of profiles from it seems highly unlikely. This is in part explained by the way in which the database has become represented as an essential, seemingly indispensable, technology in the contemporary armoury of crime management’ (Williams & Johnson 2008)*
- Both claims now in need of revision!

Marper: A few points



- No criticism of threshold for taking;
- No criticism of speculative searching;
- Some distinction between DNA profiles, samples and fingerprints but not pursued;
- Evaluated empirical evidence for public protection provided by UK Government but dismissed it.

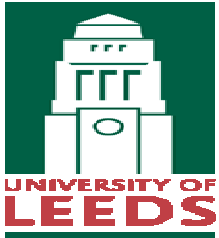
The Pivot of Proportionality



- UK response in a set of proposals in Home Office (2009) Keeping the Right People on the DNA Database: Science and Public Protection. Currently subject to public consultation from 7th May 2009 to 7th August 2009
 - Proposals are to amend Section 64 of Police and Criminal Evidence Act (PACE) 1984 and ‘make more detailed provisions on the retention, use and destruction of DNA data & fingerprints.

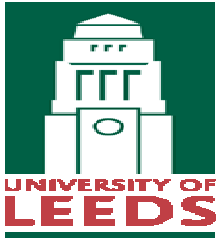
The Pivot of Proportionality

The proposals together:



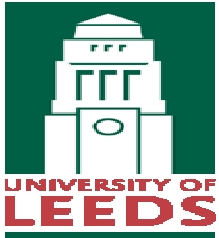
- add weight to the public interest justification by providing evidence for the benefit of retention;
- reduce the weight of the privacy breach by proposing to delete all cellular samples;
- promise a revised retention regime which continue to provide (reduced?) public protection through early detection and which complies with the Court ruling;
- intend to establish a 'governance structure which is open, transparent and accountable.

A New Retention Regime for DNA Profiles and Fingerprints (i)



- DNA Profiles of all convicted adults indefinitely retained
- DNA Profiles of adults arrested but not convicted for a recordable offence other than serious violence, sexual or terrorist-related offences retained for 6 yrs
- DNA Profiles of adults arrested but not convicted for serious violence, sexual or terrorist-related offences retained for 12 years
- DNA Profiles from volunteers not to be speculatively searched or retained
- Fingerprint record retention will mirror that for DNA.

A New Retention Regime for DNA Profiles and Fingerprints (ii)



- DNA Profiles of all children under 10 removed
- DNA profiles of under 18s convicted of serious violence, sexual or terrorist-related offences to be retained indefinitely



- DNA profiles of under 18s convicted **once** of less serious offences to be removed at 18



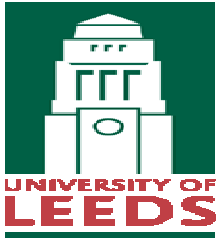
- DNA profiles of under 18s arrested but not convicted of serious violence, sexual or terrorist-related offences will have profiles retained for 12 years



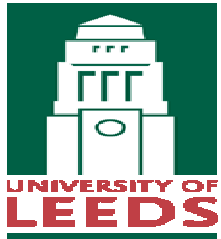
- DNA profiles of under 18s arrested but not convicted of less serious offences to be deleted after six years or on 18th Birthday, whichever is sooner.

- No mention of fingerprint retention regime for these categories of persons

The Proposals: Other elements:



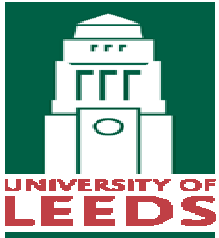
- All CJ samples to be destroyed within six months of processing.
- Removal of individuals' entitlement to witness destruction of fingerprints taken in the course of an investigation.
- Powers to be given to sample and fingerprint convicted offenders not already profiled and fingerprinted.
- Powers to be given to sample and fingerprint UK nations and UK residents convicted of violent or sexual offences overseas.



NDNAD Governance

- NDNAD Strategy Board to have greater mix of operational and independent members
- ‘Strategic and Independent Advisory Panel’ to ‘monitor the application of the new approach and provide advice and guidance to Ministers through an annual report’. May be an existing body but will have to be able to ‘adopt an entirely independent and constructively critical approach’

Characterisations of the Draft Proposals



- ‘A proportionate response’ (Coaker)
- ‘No respect for the presumption of innocence’ (Chakrabarti)



- ‘An insult to the ECrtHR ruling’
- ‘An erosion of justice’

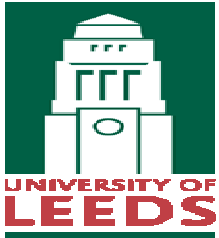


- ‘An undignified rearguard action’ (Huhne)
- ‘Striking the right balance between public protection and personal privacy’ (Payne)



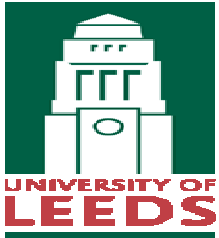
- Mixed discursive repertoire including elements of: pragmatic actuarial risk analysis; bioethics-lite; moral solidarity;

Evidence base: Ben Goldacre:



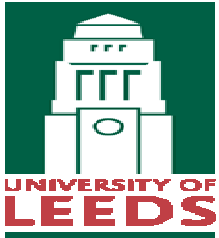
- this study..., is possibly the most unclear and poorly presented piece of research I have ever seen in a professional environment.
- they explain their methods haphazardly...
- there is absolutely no indication of how wide the error margins are, and whether these are chance findings.
- At a few hundred people, this study seems pretty small...
- If research of this calibre is what guides our policy on huge intrusions into the personal privacy of millions of innocent people, then they might as well be channelling spirits.

Evidence base: Soothill & Francis



- [Issue is]...how long innocent people should be adjudged as “honorary” criminals,...
- ...there is confusion between two types of discourse—a discourse relating to crime and a discourse relating to criminals... The danger is to assume a one-to-one relationship between a crime and a criminal.
- the versatility argument must be linked with empirical evidence that arrestees have significant crime-free periods, for otherwise they will be on the database anyway.
- We believe that a more appropriate analysis is needed to justify a retention period of six years.

Questions and Comments on the Proposals (i)



Retention proposals rest on actuarial risk assessment rather than judicial or other individualised assessment of 'dangerousness'



- How good (relevant, reliable) is the preliminary evidence base provided thus far?

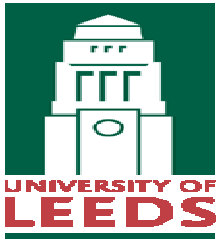


- How might this kind of reasoning collide with other 'due process' methods used elsewhere?



- Does the proposal's deployment of two categories of crime align with criminological evidence about criminal careers? Or does it serve a different – public confidence/support function?

Questions and Comments on the Proposals (ii)



- Can the measures be characterised as favouring ‘rational credibility’ over ‘strict scrutiny’?



- Will wholesale sample destruction have negative effects on current uses and future developments?



- Is the balance between public protection and personal privacy necessarily a zero-sum game?



Coffee break – then international snapshots