Brain Imaging: Consent Issues and Licensing of Storage and Analysis

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Background

• Forensic brain imagine cannot (yet) be done
  – Future developments in science
  – Will the law then react appropriately?
  – Can/should the law react in anticipation?

• Analogies to other intersections of science and law
  – CCTV; human tissue; DNA
Is it like CCTV?
Is it like CCTV?

• MRI requires active participation
• No equivalent to covert surveillance
• Scans are not recognisable:
  – by self
  – by familiar others
  – but can serve as an identifier by an expert
Is it like Human Tissue?
Is it like Human Tissue?

• Brain
  – Internal organ
  – Cellular material

• Scan
  – Data creating an image
  – Derived from human tissue
Legislation

Human Tissue Act 2004

CHAPTER 30

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PART 1

REMOVAL, STORAGE AND USE OF HUMAN ORGANS AND OTHER TISSUE FOR SCHEDULED PURPOSES

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Legislation

- Human Tissue Act 2004
  - England and Wales only
  - Governs
    - taking samples
    - storing samples
    - licensing
Legislation

- **Human Tissue (Scotland) Act 2006**
  - Scotland only
  - Governs
    - taking PM samples
    - storing samples
    - no licensing
What is Human Tissue?
What is Human Tissue?

• “Relevant material” which consists of or includes human cells

• Excludes:
  – Cell lines
  – Gametes
  – Embryos
  – Foetal tissue outside the body
What is Human Tissue?

- Excludes:
  - Hair  {Except where to be
  - Nail  {used for DNA analysis

- What is…?
  - Tissue extract  Cell sample  X-ray
  - Biosample  Scrape  MRI
  - Biospecimen  Wipe  fMRI
  - Aspiration  Swab  SCAN?
  - Bodily fluid  Graft
  - Secretion  Shedding
Tissue Banks

“A collection of human tissue or other biological material, which is stored for potential research use beyond the life of a specific project with ethical approval or for which ethical approval is pending”

NRES definition of a Research Tissue Bank
What is a Bank?! 

- Biobank 
- Repository 
- Collection 
- Registry 
- Archive 
- Library 
- Etc.

May also include data such as medical notes and clinical outcomes.
Licensing for Banks

• Run by Human Tissue Authority
  – Powers to inspect

• Only for England and Wales
  – Concerns collaborative projects in Scotland

• Not for diagnostic archives
  – But required for prospective studies
Is it like DNA?
Is it like DNA?

- Not ‘bodily material’ legally speaking
- Scans are data
- Details inner-most self?
Is it like DNA?

s45 of HTA 2004: Non-consensual analysis of DNA

(1) A person commits an offence if—
   (a) he has any bodily material intending—
       (i) that any human DNA in the material be analysed without qualifying consent, and
       (ii) that the results of the analysis be used otherwise than for an excepted purpose,
   (b) the material is not of a kind excepted under subsection (2), and
   (c) he does not reasonably believe the material to be of a kind so excepted.
Is it like DNA?

- DNA Profile
  - Genetic information
  - Genotype / Phenotype

- Brain Scan
  - fMRI
  - Functional information
Is it like DNA?

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Is it like DNA?

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So What Should We Do?

• Legionate?
  – Amend HTA to be wider?
  – Create new *sui generis* law?

• Regulate?
  – Licensing?
  – Data protection principles?
So What Should We Do?

• Debate!
  – What can/should we do?
  – Where will it lead?

• Research!
  – Create possibilities
  – Consider implications
Thank You!