

A Family Affair: Forensic DNA Databases and Privacy Implications for Biological Relatives

Patricia Kosseim
March 27, 2015



Commissariat
à la protection de
la vie privée du Canada

Office of the
Privacy Commissioner
of Canada



Commissariat
à la protection de
la vie privée du Canada

Office of the
Privacy Commissioner
of Canada

Outline

- Canada's National DNA Bank: An Overview
- Some Facts and Figures
- The Legal Evolution of the NDDB
- Un-traversed Frontiers
- Privacy Paradoxes



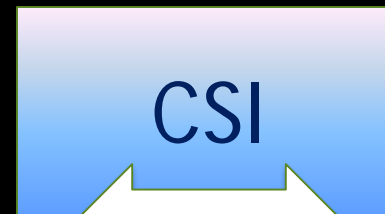
Police collect sample
from convicted offender

NDDDB create DNA profile
And upload into COI



Forensic lab process sample
Left at crime scene

Upload DNA profile into CSI
Using CODIS



COI-CSI Matches are brought
to CCRTIS for confirmation

CCRTIS confirms identity and
Forwards data to local forensic lab

Local forensic lab passes CO identity
to investigator, who then requires warrant
For new DNA sample to be used as evidence





As at March 15, 2015:

411,938 profiles in NDDB

➤ 337,361 COI

➤ 104,947 CSI

Offender Hits 34,204

Forensic Hits 3,873



Commissariat
à la protection de
la vie privée du Canada

Office of the
Privacy Commissioner
of Canada

DNA warrants – *R. v. S.A.B.*

DNA databank – *R. v. Rodgers*



Commissariat
à la protection de
la vie privée du Canada

Office of the
Privacy Commissioner
of Canada

Un-traversed Frontiers





Privacy Paradox # 1

Restricted number of autosomal markers less privacy intrusive when running the search, but also less effective by returning a very large number of partial matches. Using additional markers in the up-front screening process, might help weed out false leads and reduce needless disruption and angst among families, but might potentially be or become more revealing depending on how the technology evolves.



Privacy Paradox # 2

At initial stage, familial searching could be restricted to X number of autosomal markers for purpose of creating a first candidate list; subsequent testing using additional markers could be reserved for purposes of confirming only and winnowing down the first list. While more privacy protective up front, also creates an incentive to keep original DNA samples indefinitely, essentially retaining a far greater amount of highly sensitive personal information.



Privacy Paradox # 3

If one can justify familial searching as acceptable expansion of offender databases, then by logical extension, there is no rational reason for objecting to a universal database containing DNA of all citizens. Unless one can demonstrate that relatives of offenders are themselves more likely to be offenders, there is nothing that distinguishes law-abiding relatives of offenders from law-abiding relatives of non-offenders, other than their accidental biological heritage.