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OCCASIONAL
PAPER

DNA as Part of Identity Management for the Department of Defense

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Summary

The Department of Defense (DoD) must keep track of a large and ever-growing number of people, both known and unknown, as it executes its mission. The field associated with this responsibility is called identity management. One tool for identity management is biometrics, and, increasingly, some view DNA as a strong candidate for the expansion in biometrics because of its unique and unalterable character. However, serious questions remain about whether DNA is a viable biometric option, and it presents especially challenging questions.

This exploratory study is intended to illuminate significant issues and potential applications to assist DoD in making informed decisions about research in identity management. This paper assesses some of the issues presented by DNA data collection, storage, and use, and discusses the potential applications and implications.

This analysis led to the following key findings:

- Investment in DNA for some identification applications appears worthwhile.
- Investment in DNA for verification does not appear worthwhile.
- No studies demonstrating the value of DNA as a biometric appear to exist.
- Risk management needs can likely be satisfied with less intrusive measures than DNA.
- Collection of DNA and storage of DNA information within DoD requires a systematic approach that includes identifying priorities and risks.
- Little or no reliable cost data exist.

DoD should therefore begin a systematic effort to evaluate the viability of DNA in identity management. The DoD needs to systematically

- evaluate and state its priorities for identity management
- evaluate and state the risks identity management is intended to address
- explain how using biometrics reduces those risks
- identify risks or priorities that can only be addressed by DNA
- analyze the costs and benefits of expanding the use of DNA in identity management
- develop policies regarding collection, analysis, use, and storage of DNA information.

At this time, DNA as a biometric appears a worthwhile investment for narrow, targeted applications. Less complicated and more robust technologies, such as fingerprint and iris scans, should be favored for broad-based biometric applications.