CONFLUENCES OF GENETICS AND DIGITAL DATA IN SECURITY SETTINGS

Rafaela Granja

Communication and Society Research Centre (CECS), University of Minho, Portugal

Mareile Kaufmann

Department of Criminology and Sociology of Law, University of Oslo, Norway

Matthias Wienroth

Centre for Crime and Policing, Northumbria University, UK

Abstract:
Recent sociotechnical developments have brought genetics and digital technologies together. Nowhere is this more apparent than in public safety and security contexts. How does this transformative confluence impact security discourse and practice, and society at large?
Genetics is a continuously expanding research area with a long tradition of tools for public safety and security, e.g. in law enforcement, commercial security, victim identification, and anti-terrorism surveillance. Its further development into epigenetics and epigenomics draws academic, industry, policing, and policy interests, presenting new opportunities and challenges for these domains. The rise of digital DNA technologies generates additional transformations as they change DNA practices in terms of scale, data mobility, and novel tools for analysis. Genetics databasing at increasingly complex scale, and forensic applications for phenotyping, genetic genealogy, and epigenetics are but some examples of technologies currently changing practices in law enforcement and other security domains. Not only does this trend call for further engagement with reliability, utility, and legitimacy as guiding valuations in new developments, but it recasts procedures, politics, and concepts. Rising commercialization and professionalization of such techniques further complicate their functioning and influence. In addition, techniques and their implementation vary notably across countries while their cross-border uses are increasingly discussed and tested.
We invite contributions providing insights of present and future challenges raised by the interface of genetics, the digital, and security. Papers may provide theoretical conceptualizations, methodological approaches, or case studies that illustrate how "digital genetics" are developed, debated, and mobilized within security settings.

Key words:
Genetics; security; digital data