

Justice in Code – AI and Blockchain in UK Asylum Systems

This case study is based on my MSc dissertation, *Justice in Code*, in which I examined how AI-assisted decision systems and blockchain identity frameworks could operate within the UK asylum process while remaining compliant with human rights and data protection law.

Objective

To evaluate whether AI-driven triage tools and blockchain-based identity systems can reduce refugee vulnerability in the UK without breaching safeguards under:

- Human Rights Act 1998
- Equality Act 2010
- Data Protection Act 2018
- UK GDPR
- Illegal Migration Act 2023

System Models Analysed

The research assessed two layers of digital intervention:

1. AI in Asylum Processing

- Case summarisation tools
- Risk profiling and triage systems
- Credibility assessment models
- Automated drafting assistance

2. Blockchain Identity Systems

- Decentralised identifiers (DIDs)
- Verifiable credentials
- Humanitarian pilots (UNHCR, WFP, ID2020)
- Legal recognition challenges within UK frameworks

Governance Evaluation Framework

Each system was tested against three core legal principles:

- Due process
- Equality before the law
- Recognition of legal personhood

These were operationalised through five assessment criteria:

- Purpose limitation
- Proportionality
- Transparency
- Contestability
- Human oversight

Key Findings

- AI can improve efficiency and consistency but risks entrenching structural bias without mandatory equality testing.
- Algorithmic opacity conflicts with procedural fairness where reasoning cannot be explained or challenged.
- Blockchain identity may improve portability of credentials but risks “digital statelessness” if not legally recognised.
- The Immigration Exemption within UK data protection law weakens accountability in migration governance.

Proposed Safeguards

- Prohibiting solely automated asylum decisions
- Mandatory algorithmic impact assessments
- Public transparency registers for migration AI systems
- Narrowing the Immigration Exemption
- Independent oversight mechanisms
- Off-chain storage of personal data in blockchain systems

Conclusion

AI and blockchain are not inherently protective or harmful. Their impact depends entirely on legal architecture, enforceable oversight and human rights compliance. Without structural reform, digital tools risk codifying exclusion rather than strengthening access to justice.