The University of Manchester

DISSERTATION SHOWCASE

Optimising Digital-ID for Market Integrity and Data Protection in UK Financial Services

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LLM International Commercial and Technology Law

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(at the time of the research Mark was a Senior Case Officer at the Information Commissioner's Office (ICO))

BACKGROUND

My interest in digital identity emerged naturally from my professional background in data protection and academic engagement with financial technology (FinTech) from which I repeatedly encountered conversations about the rapid global expansion of digital identity.

As digital IDs and associated technologies raise significant data privacy challenges, present major opportunities for enhancing anti-fraud and anti-money laundering (AML) measures and are seen as foundational to successful digital financial infrastructure, I saw an opportunity to explore a topic directly aligned with both my career in data protection and the commercial technology focus of my degree.

The UK provided an ideal focal point for examining digital ID owing to its relatively nascent framework and divergent proposals for future development which left scope for exploration. During the research process, debate began to intensify around potential for a government issued mandatory digital ID, sparking fears over possible government surveillance counterposed by the promise of efficient, fraud resistant public services.

Not only did digital ID represent a timely and controversial intersection of law, technology, and public trust, the lack of existing legal research considering digital ID through the lens of both financial regulation and data protection simultaneously made the dissertation uniquely positioned to contribute something original.

PROJECT SUMMARY

The project examined whether the UK financial services sector can meaningfully adopt digital identity systems whilst ensuring compliance with data protection obligations. Financial services seek to leverage digital ID to ensure robust identity verification to prevent fraud, enhance market integrity, and meet AML requirements. However, this entails mass collection and processing of sensitive personal data which UK data protection law imposes strict limitations on the collection, use, and retention of.

The dissertation evaluated three global models of digital identity - centralised, federated, and decentralised/self-sovereign - to assess which could best meet the UK's legal, commercial, and societal needs. As other countries have already implemented mature digital ID ecosystems, I undertook a comparative analysis to understand what lessons the UK could draw from both successful and unsuccessful international examples.

This research addresses a gap: although digital ID is widely discussed, there was no existing academic analysis bringing together financial regulation, data privacy law, and comparative implementation models in the UK context.

METHODOLOGY

I adopted a multimethod research approach, combining legal analysis, comparative study, and interdisciplinary evaluation.

+ **Analytical legal research:** I examined how UK financial regulation (including AML requirements) and its underlying goal of market integrity interacts with the personal data processing principles outlined in the UK GDPR such as necessity and data minimisation, and analysed which of the three models of digital ID optimises balance between the two frameworks.

+ **Comparative analysis:** I compared centralised, federated and de-centralised digital ID models and their implementation in India, the Nordic countries and the EU respectively, contrasting their differing governance structures, privacy protections, and effectiveness in reducing fraud.

+ **Interdisciplinary assessment:** Because digital identity has ramifications beyond legal compliance, I incorporated socio-economic considerations such as financial inclusion and public trust, recognising that digital exclusion can undermine even the most technically sound systems. I also had to have regard for, and understanding of, the technological features of digital ID and how these operate.

My source materials included legal databases, government white papers, industry standards, academic publications, expert commentary, and policy documents from stakeholders including financial institutions, digital ID providers, regulatory bodies and civil society groups. As digital ID appears as a topic across various disciplines and there was sparse literature combining both digital financial and data protection law perspectives, I often had to gather insights across fields and combine sources to build arguments and form an evidence-based view.

I also benefitted from excellent academic guidance from Course Director Dr Joseph Lee as he really assisted me in making my project relevant to my studies, focusing on the most impactful legal angles from which to consider digital ID whilst bringing in the knowledge built up from studying the Financial Law and FinTech and Data Privacy Law units on the course.

FINDINGS AND IMPACT

My research project concluded that **a centralised digital ID system**, where UK government bodies manage and oversee the infrastructure, would struggle to achieve compliance with UK data protection requirements, particularly data minimisation and purpose limitation. While centralised systems can be highly effective for fraud prevention, their intrusiveness and governance risks make them unsuitable for financial services use in the UK.

A **federated model**, however, where trusted providers issue and manage verified digital ID credentials, offers a more viable solution. The UK already possesses components of such an ecosystem, including a trust framework against which companies involved in providing digital ID can achieve certification and established providers with financial onboarding offerings. A federated, bank led approach mirrors successful models in the Nordic region, where digital ID is widely trusted and seamlessly integrated into public and private services.

The third model, **decentralised/self-sovereign identity**, leverages promising privacy enhancing technologies such as zero knowledge proofs which minimise and in certain cases avoid collection of personal data in furtherance of data protection compliance. However, conflict arises with AML regulations which mandate that financial institutions must retain identifiable personal data for compliance, rendering a system designed to avoid disclosing that data altogether incompatible. As such, this model remains more aspirational than immediately applicable.

Overall, the dissertation demonstrates that a federated model represents the UK's optimal route towards a digital identity system that strengthens market integrity and fraud prevention without compromising individual privacy. These findings are highly relevant to ongoing national debates and may support future regulatory and commercial decision making as the UK seeks to advance its digital identity framework.

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Because no one had examined digital identity through this combined financial law and data protection lens, I had to build the analysis from the ground up. It pushed me to integrate sources in new ways and gave me the confidence to approach complex, emerging issues with original thinking.

Personally, I feel I gained many skills from undertaking this individual research project. The challenge of exploring such an emergent and underexplored area pushed me an extra step further as I couldn't depend on having the broad range of sources usually available for assessed topics. This forced me to think outside the box and research in a fresh and unique way. Completing the project has also given me a great deal of confidence in being able to undertake independent research and approach such a large project from a previously unexplored angle.

The thesis has already had an immediate impact on my career prospects. I have recently become a Data Protection Consultant, a move which I know has been aided by studying this area of law in depth and from perspectives of personal interest. I have also been offered the opportunity to join the Cambridge Centre for Alternative Finance as a part-time intern. My focus will be on data protection developments in digital finance, which will touch on many of the themes I explored in my research project.
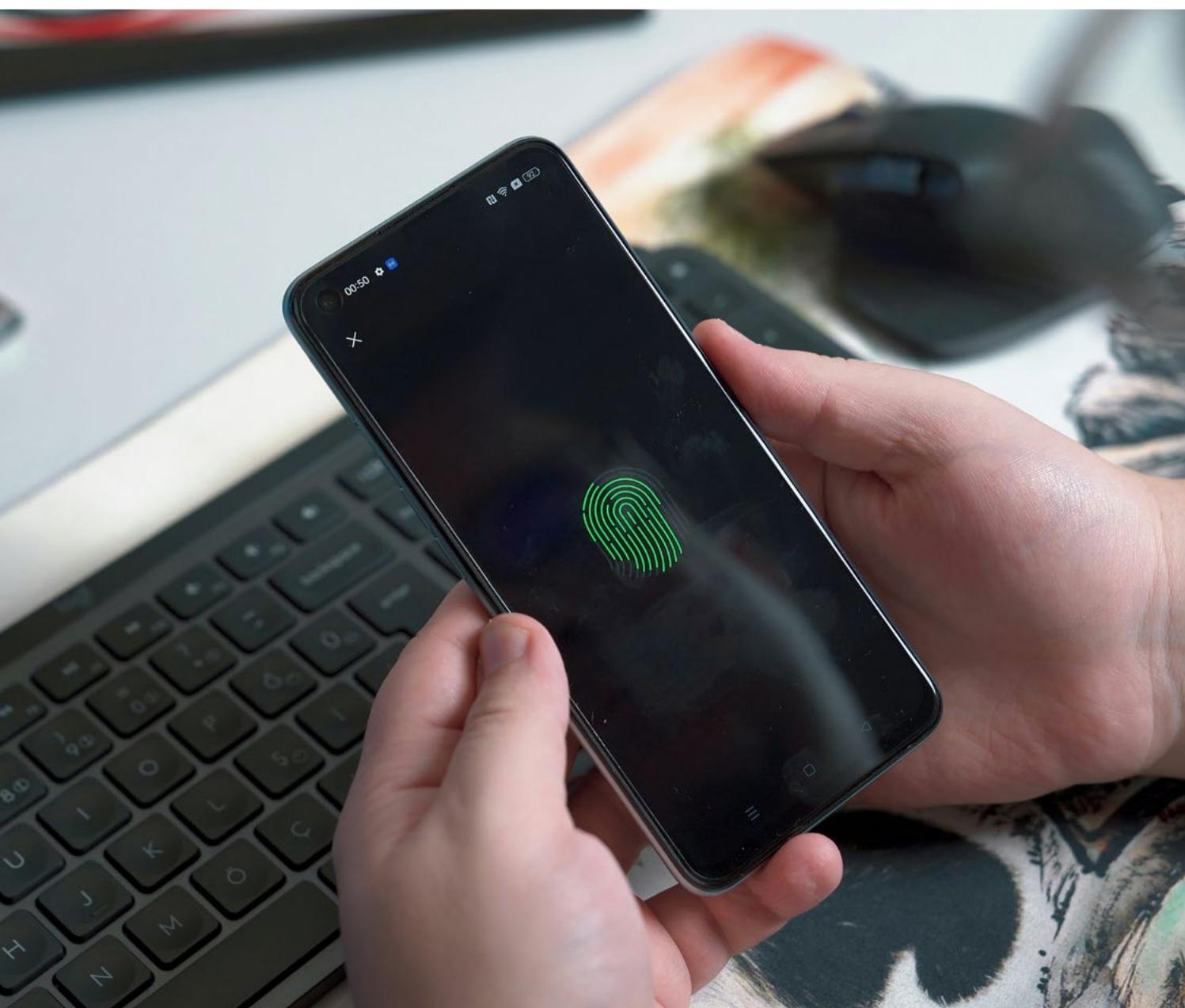
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