

# Summer 1 Reflective Report

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## Research Project Development

### Structure of Final Research Project

My summer 1 research project sought to explore the uncertainties in the regulation of law enforcement's use of facial recognition technology and potential implications for the safeguarding of key fundamental rights, specifically the right to non-discrimination. To address this complex issue, I adopted a mixed-methods approach that integrated qualitative content analysis with an expert stakeholder survey, allowing for a multifaceted view of the legislative landscape and its real-world implications.

The first phase of my research involved a systematic qualitative content analysis of the EU Artificial Intelligence Act (AI Act). Using NVivo software, I developed a coding framework to deconstruct the legislative text, focusing on four key themes I identified during preliminary research: Regulatory Fragmentation; Proportionality and Risk Assessment; Bias Mitigation and Non-Discrimination; and Transparency, Accountability, and Redress<sup>5</sup>. This structured process was essential for deconstructing the complex legislation, allowing me to pinpoint specific ambiguities and gaps that could undermine its rights-protecting objectives, forming and guiding the foundation of the subsequent research findings.

To triangulate these legislative findings, I designed and deployed a targeted survey to Irish academics, policymakers, and active stakeholders engaged in the discourse on law enforcement use of facial recognition technology. The anonymous survey was designed to distil stakeholder perspectives on the current regulatory context's limitations, perceived impacts, and potential solutions. This methodological choice aimed to ground the theoretical analysis of the AI Act in the practical concerns of actively informed stakeholders.

### Findings of Research

The analysis indicates a substantive divergence between the EU AI Act's normative objectives and the operational mechanisms available for governing FRT in law enforcement. My analysis indicated the current regulatory framework is undermined by pervasive fragmentation, stemming from unspecific legal terms (e.g., "public security", "bias") and

excessive deference to Member State discretion. This interpretive latitude may allow for loopholes, risking inconsistent application and uneven rights protection across the EU. Further, a lack of evidence supporting the delineation of real-time versus post-remote biometric identification calls into question the meaningfulness of their respective “high risk” and “prohibited” risk categorisation. My findings indicate the Act’s repeated deference to authoritative plurality conjoined with resource constraints may increase the risk of weakened enforcement capacity and oversight across jurisdictions. Further analysis also uncovered a crucial gap between the Act's technical requirements for "bias" mitigation and established legal standards of "non-discrimination," with little guidance on how to translate one to the other.

The stakeholder-led survey revealed stakeholder agreement on enforceability and accountability shortfalls as prominent concerns, prioritising transparency, use case clarification, and preventive oversight measures. Respondents also rated real-time FRT in publicly accessible spaces as posing particularly acute risks of discriminatory outcomes and chilling effects on public life. Collectively, the coded legislative analysis and stakeholder evidence indicate that identified gaps are not merely theoretical but constitute practical obstacles to consistent, rights-protective governance of FRT use by law enforcement.

## Comparing Final Output to Initial Proposal and Objectives

The final research output is a more focused and analytically sharp execution of my original proposal. While the initial aim was a broad exploration of the "outlook" for FRT, the research question evolved to specifically address how to address uncertainties and ambiguities in the regulatory context, which may undermine the fair deployment of facial recognition technology by law enforcement, in a manner which protects the fundamental right to non-discrimination. This refinement provided a stronger analytical anchor in the regulatory context for the project.

The core methodology outlined in my proposal – combining content analysis with an informed stakeholder survey - was executed as planned, and all original objectives were successfully met. I analysed the legislative framework, gathered stakeholder insights, and conducted a thematic analysis to produce policy-relevant conclusions. The main evolution from the proposal was a greater emphasis on the direct, granular analysis of the EU regulatory environment grounded by the AI Act itself, yielding more targeted and impactful findings. Aspects of the initially outlined methodology were deprioritised in favour of this

approach, such as research into the state of the art in algorithmic bias mitigation, due to the limited nature of the literature and information, and textual reviews, where the literature was limited and a more explorative deductive approach was adopted. This shift made the final paper a more mature and targeted version of my initial vision, demonstrating a clear progression from a broad inquiry to a more focused analysis.

## Recommendations and Next Steps

Based on the findings, I propose three key recommendations to address the identified regulatory shortcomings.

1. Establishment of a Member State AI Council with specific: This body, including civil society participation, would harmonise definitions of key terms and ensure consistent, independent oversight at a national level.
2. Development of an EU-wide mandatory Fundamental Rights Impact Assessment (FRIA) for Law Enforcement: A specific FRIA would create a uniform methodology for evaluating rights-based risks, ensuring transparency and accountability before FRT systems are deployed.
3. Explicit Clarification of FRT Use Cases and Purpose Limitation: Policymakers must eliminate vague language and provide clear, binding guidelines on the permitted scope and context for FRT deployment, while clarifying the responsibilities of relevant authorities, to prevent unchecked expansion.

Looking forward, as the guidelines for implementation of the EU continue to roll out, it seems a key next step is to conduct longitudinal research monitoring the AI Act's real-world implementation across different Member States. This would assess whether the predicted regulatory divergence materialises and how FRT's use by law enforcement proliferates across the EU. Future work should also focus on developing the proposed FRIA framework and investigating the efficacy of bias-mitigation tools in live law enforcement settings.

Continuous, critical research is essential to ensure that legal frameworks can effectively uphold human rights as this powerful technology evolves.

# Personal Development

## Challenges Faced through the Project

In the initial stages of the project, I encountered recurring time-management challenges, notably spending excessive time refining the methodology when a simpler approach would have better matched available time and learning curves. I often attempted to anticipate the project's future trajectory rather than selecting the most practical option at each stage, which diverted time from execution. An inclination toward excessive detail and optimisation sharpened my analytical precision but sometimes impeded overall cohesion and slowed progress, requiring additional out-of-schedule work to compensate. Learning when to pivot from the original plan - accepting that initial designs may not unfold perfectly - became an important adaptive skill that improved my personal resilience. Ultimately, I learned to recognise adaptability as a core competency rather than an instinctive sign of poor planning. Gaining fluency in interpreting legal texts proved more demanding than anticipated, and I initially underestimated my capacity to extract relevant legal meaning efficiently. I overcame this challenge with time and through discussion with my supervisors, whose expertise informed the validity of my derivations. Through iterative practice, I developed clearer strategies when managing certain tasks - such as reading, research, writing, and how to structure productive work blocks and restorative breaks, which enhanced sustained productivity. Separating my personal views from analytical judgment was another notable challenge, requiring deliberate awareness to maintain scholarly impartiality and to present balanced conclusions. Learning to reframe these challenges as part of a broader transformational arc - rather than personal failures - became essential for maintaining forward momentum and scholarly perspective.

## Achievements

The research project experience yielded several transformative achievements that fundamentally advanced my capabilities as an independent researcher. Most notably, I developed a more sophisticated approach to scholarly inquiry, balancing curiosity with critical rigour. The process taught me to maintain focus while pursuing research questions to maximise impact and offer a unique perspective.

A central skill I improved upon was coherent academic communication across multiple audiences and disciplines. This manifested not only in written outputs but in my ability to articulate complex legal-technical concepts to supervisors, survey participants, broad stakeholder communities, and general people in my everyday life.

The project also afforded a rare opportunity to engage with legislation in its earliest implementation stages. Researching the EU AI Act during this formative period means I will be uniquely positioned to observe how my findings evolve as Member States implement the regulatory framework.

## Role of Engagement with Peers and Supervisors

My interaction with supervisors reframed my perspective on traditional academic guidance and mentorship. Instead of constant feedback loops, weekly meetings were discussion-driven, creating an environment that was intellectually stimulating. These meetings adopted a personality of curiosity, avoiding rigid expectations while maintaining a standard of academic rigour.

The experience taught me to seek assistance efficiently - learning to frame questions and articulate challenges in ways that enabled more optimal collaborative output. I developed greater comfort with justifying research decisions and defending analytical choices, while remaining open to alternative perspectives that could strengthen the overall project. My supervisors consistently challenged me to consider multiple viewpoints, preventing premature closure on complex questions and encouraging more nuanced conclusions.

I learned that effective research requires continual questioning - both of sources and of my own assumptions - rather than pursuing definitive answers in isolation.

## Reflections on Research Experience

This project fundamentally altered my understanding as a researcher, revealing capabilities and preferences I had not previously recognised. Most surprisingly, I discovered genuine enthusiasm for legal text interpretation - a skill I initially underestimated but which became central to the project's success. The challenge of deciphering complex regulatory language while maintaining analytical objectivity proved both demanding and invigorating.

By reframing challenges as components of a larger developmental process rather than isolated setbacks, I managed to prevent rumination and enabled more pragmatic responses to unexpected obstacles.

The process revealed significant internal tension between instinctive approaches and external feedback. Initially, I was strongly attached to original research designs and struggled to detach personal investment from objective evaluation. However, constructive criticism—both from supervisors and through self-reflection—gradually became a tool for growth. My instincts shifted to greater value revision, iteration, and continuous improvement as essential research practices.

The least enjoyable aspects involved navigating periods of uncertainty about project direction, particularly when initial plans required significant modification. In these moments, I focused on progress rather than requiring complete clarity about outcomes before proceeding.

## Leadership Development

The research experience revealed leadership dimensions I had not previously considered, particularly around trusting personal instincts and work quality rather than seeking external validation for every decision. This shift toward self-reliance paradoxically reduced pressure by eliminating the need for constant external control and approval.

I developed more sophisticated audience-awareness in communication, learning to adapt language, tone, and content based on recipients' backgrounds and interests. The interdisciplinary nature of the project demanded constant translation between technical, legal, and policy frameworks, enhancing my ability to communicate relationally rather than simply transmitting information.

Most critically, I learned to communicate effectively with myself - understanding how my goals, values, and personality intersect with research demands. This self-awareness helped maintain alignment throughout the project, manage internal dialogue constructively, and sustain motivation during less energised periods. The experience of pursuing research motivated purely by personal intellectual interest proved deeply satisfying and reinforced my capacity for self-directed learning.

I developed a greater appreciation for humility in leadership contexts, recognising that "you don't know what you don't know" and effective leadership requires balancing confidence with openness to guidance. Weekly supervisor check-ins reinforced accountability while building

trust in my autonomous capabilities. I learned that leadership involves being accountable both to personal standards and to others who invest time and expertise in supporting your development.

Looking forward, I hope to build on leadership approaches centred on curiosity, supportive communication, and adaptive expectations, which honour individual strengths and working styles. Rather than subconsciously forfeiting to outdated styles where leaders must always appear correct, I increasingly favour growth-oriented approaches that value iteration, collective improvement, and honest acknowledgement of limitations.

I hope to carry these learnings in the form of leadership, which will prioritise the creation of environments where vulnerability, learning, and strategic pivoting are welcomed constructively.