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AI for migration processes: a focus on the United Kingdom’s approach

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Introduction

The use of artificial intelligence (AI) for migration governance is a growing trend with significant implications for individuals and States. The focus on this technology is not new. In 1950, the mathematician Alan Turing was already investigating the potential of machines to think, and in 1956, this became a discipline within the Dartmouth Summer Research Project on AI (Moor 2006). Despite the absence of a consensus on the definition of AI, it refers to computational technologies that mimic human cognitive functions such as learning, reasoning, and problem-solving. These systems use algorithms to analyse data, make decisions, and perform tasks traditionally requiring human intelligence (Stanford University 2016, 1).

AI algorithms is problematic, it grounds its results on data in order to learn and make inferences about patterns and future behaviour (McGregor et al, 2019). Thus, having the potential to change the way States and international organisations respond to international and national migration. Governments are increasingly turning to AI and adjacent technologies to manage the growing demand for visas, work permits or temporary residence applications (Bruno and Tao 2024). AI is used to check identities, in border security and control, to analyse data related to visa and asylum applicants as observed in Canada (Molnar and Gill 2018), Switzerland (Bansak et al 2018) or within the European Union (Regulation 2018/1860). In answer to this development, an international legal framework is emerging. In 2024, the Council of Europe, in collaboration with the Committee on Artificial Intelligence that had been created in 2022, developed the Framework Convention on Artificial Intelligence and Human Rights, Democracy and the Rule of Law. This non-binding framework which sought to tackle gender bias and discrimination resulting from AI (Gender Equality Commission 2024, para. 23), promotes principles like fairness, transparency, safety, accountability, human dignity, protection of personal data and privacy, and prevents discrimination. It aims to guide member-States towards ethical AI development and use by public administration and governance. In parallel, in 2024 the European Parliament adopted the European Union AI Act, though it inadequately addresses AI use in migration control. Critics argue that it left loopholes and encourages discriminatory surveillance systems such as risk assessment systems and predictive analytics to facilitate pushbacks. The AI Act does not view AI in the migration process as an instrument of surveillance and oppression and replicates databases' biases reflecting unfair social practices (eg. racism, sexism, xenophobia) specifically in areas such as security, border

controls or access to social services (Committee on the Elimination of Racial Discrimination, 2020).

AI systems are not neutral. They reproduce and amplify structural inequality, whilst reinforcing exclusion (Council of Europe 2023, 72). For instance, facial recognition systems scan individuals faces and adds it in surveillance databases without individuals consent. It then disproportionately criminalises racialised groups (Amnesty International 2023). Yet, AI is still used to automatise governments' administrative applications **triaging** based on data sets such as applicant's citizenship, age or marital status.

1. Transforming asylum and refugee management

Ethical perspectives on AI use in migration vary. Utilitarians support AI if it produces better outcomes and reduces bias (Mitov 2021). On the contrary, deontologists argue against AI in human-centric tasks, underling the importance of human dignity in decision-making processes.

AI is mainly used, developed and experimented on vulnerable groups (refugees, migrants or stateless persons). At borders, AI addresses demand for enhanced security against transnational crime and terrorism while controlling migration flows. However, these technologies, used for "immigration surveillance" (Muñiz 2022) often adapted from military purposes, risk criminalising migrants and asylum seekers (E. Tendayi Achiume 2020, para 15). This raises human rights concerns, particularly regarding "pushbacks" that violate *non-refoulement* principles. In 2021, the United Nations Special Rapporteur on contemporary forms of racism argued that already governments have extensive and reviewable powers in immigration enforcement 'that are not subject to the substantive and procedural constraints typically guaranteed to citizens' (E. Tendayi Achiume 2021 para.3-b). Furthermore, the Special Rapporteur through the United States-Mexico border case underlines how the use of autonomous surveillance AI infrastructure and the development of "smart" border technologies increases the dangers and precarious journeys of migrants (E. Tendayi Achiume 2021, para 54).

As AI technologies are increasingly being applied to various aspects of asylum and refugee processing, questions arise both about its potential benefits and ethical and human rights implications. AI is being developed for different purposes: (i) identity verification through the development of facial recognition technology; (ii) risk assessment; (iii) detention

assessments; and (iv) surveillance. Biometric technology, particularly facial recognition, is being implemented at various border checkpoints to confirm individuals' identities (Forster 2022, 8). This system compares stored passport photographs with real-time images of travellers. Additionally, experimental AI projects are underway in both the United States and the European Union, aiming to detect deception through analysis of subtle behavioural cues. This risk assessment, such as the 'iBorderCtrl' project used an avatar to analyse "micro-gestures and non-verbal behaviour" of travellers (Project flyer) as a way to detect "deception". Yet, the Project summary does underline that human agents are still necessary for further checks if indeed deception is being practiced. In the United States, risk assessment through AI is being used to evaluate potential risks associated with immigrant detention. These systems consider various factors about applicants such as country of origin, previous application history and age (Deloitte 2020, 4) in order to predict their likelihood of evading authorities. The data feeding these algorithms can be gathered through both remote means and direct interactions at border crossings. This data collection and analysis approach seems to align with the efforts of Frontex, the European Border and Coast Guard Agency, which is at the forefront of investigating AI applications for border control. Frontex's research encompasses both "front-end" and "back-end" capabilities, mirroring the remote and direct data gathering methods (Frontex 2021). Front-end systems, such as AI-powered security gates for faster processing and advanced surveillance systems for border monitoring, facilitate direct interactions and data collection at border crossings. Simultaneously, back-end capabilities focus on automated machine learning systems that analyse data from various sources, including remote data collection, to enhance border security functions. While these AI implementations aim to improve border security and streamline processes for legitimate travellers, they reduce human oversight in critical decision-making processes.

2. The United Kingdom's migration policy

A comprehensive mapping of AI throughout European States reveals various uses of AI in the asylum sphere. States and international organisations such as the UNHCR (Jetson project) have developed tools to "predict" patterns of displacement and migration (Casagran et al 2021), but also technologies to transcript (speech-to-text technology) as in Italy, voice recognition technology for language proficiency testing in the United Kingdom (UK), or systems to identify similarities in asylum claims ('Casematcher' in the Netherlands) (Ozkul 2023). In the UK the voice recognition technology was later found to be flawed but had already resulted in student

deportations (BBC, 2019). A high proportion of UK language proficiency tests administered between 2011 and 2014 were flagged by ETS for potential irregularities: 97% were classified as suspicious, 58% as invalid, and 39% as questionable. Whilst the 'Casematcher' process can help to reduce case processing time, it may create doubts about the applicant's credibility if the narrative is considered too similar to previous claims (Memon et al 2024).

In the UK the significant asylum backlog as of June 2023 (215.000 cases) prompted the Home Office to organise a "hackathon" to explore AI-based solutions for processing undecided cases (UK Parliament 2024; Gentleman 2023). The use of AI would accelerate the different stages of asylum processing through real-time language translation, document organisation, and assistance with information gathering, data sharing, planning, analysis, and decision-making (Memon et al 2024). However, the AI implementations in this sensitive area raises ethical concerns (unfair prejudice and amplification of biases) and issues with the 'black-box' nature of machine processes (Burell 2016). Automated decisions often lack transparency, making it difficult for individuals to understand the reasoning behind them. This opacity can lead to undetected discrimination, based particularly on ethnic or racial criteria.

The UK government has responded by hosting of the AI Safety Summit 2023. Yet, there is limited publicly available data on the actual use and impact of AI in the UK's asylum processes. Experts emphasise the need for rigorous analysis, transparency, accountability, and robust safeguards to protect asylum seekers' rights and privacy. Without robust data on outcomes, the risks of using such technologies may outweigh anticipated benefits.

In parallel, the UK's uses of AI to tackle increasing Channel crossings marks a significant shift in border management strategies. The UK Home Office has contracted Anduril – a US-based defence startup founded in 2017 and backed by the Silicon Valley investor Peter Thiel – to deploy AI-powered systems for detecting and tracking migrant vessels. This initiative includes the installation of autonomous surveillance towers at Dover, capable of identifying "suspicious" movements within a 15 km radius at sea (Ciesnik 2023). Anduril, which previously supplied similar technology to the US Department of Defence for the US-Mexico border, uses AI algorithms for automated detection, identification, and tracking of objects of interest. Though the UK government maintains that these measures aim to enhance border security and support its "illegal migration bill," it raises critical questions. In fact, the post-Brexit regulatory environment adds another layer of complexity. As the UK is no longer legally bound by the European Union General Data Protection Regulation, it maintains its own regulations, raising

issues around the transfer of personal data outside the European Union and the European Economic Area.

Furthermore, the use of a US startup raises ethical issues around AI's principle of self-learning. The fact that AI is often developed by private companies that treat it as a trade secret makes it difficult to penetrate. This opacity can have serious consequences. In cases of alleged discrimination, it becomes challenging to prove unfair treatment. Potential victims face considerable obstacles in obtaining justice, especially if they must provide evidence. Moreover, the tendency to place excessive trust in automated decisions risks overturning the fundamental principle of presumption of innocence. However, to have recourse to a US startup is understandable, according to the criminal law scholar, Oliver Cahn:

A machine accumulates data and recognises what it has already seen. The US is a country with a significantly more racially and ethnically diverse population than the UK. Its artificial intelligence might contain data from populations which are more ethnically comparable to the populations that are crossing the Channel, like Somalia for example, thus facilitating the process of facial recognition. (Ciesnik 2023)

AI implementation in this context underlines several challenges. Firstly, when AI is fed data already imbued with social prejudices, it risks integrating these biases into its decision-making process. For example, if a system is built on historical hiring data reflecting past discriminatory practices, it could reproduce these patterns in its future recommendations. Secondly, the problem can stem from inadequate or unrepresentative sampling. If the training data does not accurately reflect the diversity of the population concerned, AI risks making biased decisions in favour of groups overrepresented in the sample.

In addition, these include technical difficulties in accurate identification under adverse weather conditions and at night, the adaptability of migrants and smugglers to evade detection, and the complexities of AI-driven facial recognition across diverse ethnic groups. This use of AI in migration control serves as a pivotal case study for the broader implications of AI integration in sensitive areas of governance and human rights.

Conclusion

The integration of AI technologies in migration governance presents a complex landscape of opportunities and challenges. As government worldwide, including the UK, turn to AI-powered solutions to manage high volumes of visa and asylum applications, critical questions arise regarding ethical implications and potential human rights violations (non-discrimination, and principle of *non-refoulement*). Furthermore, the rapid expansion of the border security

market – 65 to 68 billion dollar by 2025 (Statewatch 2021) – underlines the urgent need for careful consideration of AI’s role when dealing with venerable groups.

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