JUSTICE SUB-COMMITTEE ON POLICING

FACIAL RECOGNITION: HOW POLICING IN SCOTLAND MAKES USE OF THIS TECHNOLOGY

WRITTEN SUBMISSION FROM Dr Diana Miranda, Northumbria University

Background: Facial recognition (**FR**) is an emerging biometric tool that can be used for security and policing purposes. The use of algorithmic and machine learning systems can be integrated into existing visual surveillance technologies (such as CCTV or body worn cameras), enabling faces to be algorithmically scanned and sorted. Since the 1960s, these systems have been tested and developed and, more recently, by incorporating photo-ID databases and cameras, facial features can be automatically recognised, scanned, tracked and matched to existing images (**Live FR**).

Concerns

1) Technology (in)effectiveness: Several stakeholders have voiced concerns in relation to the effectiveness of this technology when identifying faces in the crowd (Gates, 2011; ICO, 2019a and 2019b; Introna and Nissenbaum, 2010; Surveillance Camera Commissioner, 2019). As companies (such as AXON) develop and deploy AI-powered policing technologies, it is crucial that their accuracy and reliability is widely discussed. In some cases, Ethics Boards have been established to provide advice in relation to the development of new AI based technologies, as it is the case of FR (see, for example the Axon AI & Policing Technology Ethics Board, 2019).

As Police Scotland aims to explore the use of FR software, it is important to question how (un)reliable and (in)accurate this technology is. How are machines recognising and identifying human faces? Is the algorithmic process trustworthy?

2) Citizen led dialogue: There is an urgent need to establish a dialogue with citizens and involve them in a discussion on how live FR should (or should not) be deployed in public spaces by police authorities. How do citizens perceive the use of FR by law enforcement? Published by the Ada Lovelace Institute, the results of a national survey on the use of FR revealed that the majority of the British public expects police use of FR to be subject to restrictions, due to concerns around privacy, surveillance, consent and ethics (Ada Lovelace Institute, 2019). Before the

introduction and use of FR software, it is imperative that there is an ongoing process of public consultation and engagement in order to evaluate what are the citizens' expectations. In particular, it is crucial to develop a reflection on how the use of live FR in public spaces impacts different users (e.g. ethnic minorities) and its potential social harms. If these automated systems are integrated into public policing, allowing faces to be captured and algorithmically sorted, this requires public awareness and accountability. This is particularly important when the use of FR has been subject to technological biases when misidentifying individuals - namely women and BAME (Davies, Innes and Dawson, 2018; Fussey and Daragh, 2019; London Policing Ethics Panel, 2018).

3) Power asymmetries and categorisation of suspicion: It is vital to evaluate how the use of this technology can reinforce power asymmetries and social inequalities (Introna and Wood, 2004; Norris, 2003). Surveillance scholars have been raising concerns about the implementation of FR systems, its impacts on privacy and public space interactions and its questionable accuracy (Lyon, 2001; Gray, 2002; Smith, Mann and Urbas, 2018). For instance, there are differences in error rates that vary depending on the characteristics of the individuals (such as ethnicity, race and gender). This might perpetuate forms of profiling that will (re)create categories of suspicion and target groups that are already disproportionally subject to more control (Introna and Nissenbaum, 2010; Garvie et al., 2016).

The research that the author has been developing on the use of biometrics and visual surveillance technologies in the CJS highlights precisely how technological devices can act as a classification tool while attempting to visually represent and portray the 'deviant other'. Such representation leads us to read the body of the law-abiding citizen vs suspect/criminal in a binary way, by reducing these individuals to their physicality and perpetuating their stigma (Miranda, 2017, 2018 and 2019a). FR emerges as another form of reading our bodies and we must remain critical of deterministic and simplistic representations of who we are as individuals and members of our society.

4) **Technology is not neutral**: Nonetheless, this technology is often portrayed by the police as an important tool in the fight against crime and as a valuable, objective and neutral tool to aid policing. We must however question such portrayal of objectivity and neutrality. In the UK, the Metropolitan Police Service has been trialling

live FR technology in events and crowded public spaces[1] since 2016. Following these trials, litigation has been raised by human rights organisations, as there is not a code of practice or legislative basis to guide the application and use of this technology. It is also important to reiterate that FR trials worked on the probability of a possible match by scanning the faces of individuals circulating in the streets in real time and comparing them to images previously stored in national databases. In the midst of accusations of inaccuracy and bias, these trials have demonstrated a very high false-positive rate[2]: when an individual is matched incorrectly to another person by the system (Surveillance Camera Commissioner, 2019).

5) **Public confidence in the police**: The integration of FR into policing practice is complex as these systems are *opaque* and *intrusive*, potentially impacting public trust in their use (London Policing Ethics Panel, 2018; Surveillance Camera Commissioner, 2019; Webster, 2017). How can trust and transparency be enhanced? When considering these concerns around how FR impacts **trust** and wider **harms** (such as social injustice and privacy infringements), Police Scotland will need to consider the potential effects of deploying live FR, namely how it will impact the interactions between the public and the police and the need for accountable policing enabled by safeguards and specific guidance on the use of this particular technology.

6) Operational and contextual challenges: Going beyond the strategic programme "Policing 2026", there is the need to consider the current challenges faced by police officers. Recently, the author conducted a study that aimed to understand how the police uses body-worn cameras (BWC) in Scotland (Miranda, 2019b). During the interviews and conversations, most of the concerns previously explored were also raised by the police officers as they discussed the potential use of live FR in Scotland. Even if some participants deemed FR to be useful when dealing with large crowds and events, they also highlighted how intrusive live FR can be, considering some of the moral challenges they would need to face in situations where facial features would be constantly scanned in public spaces. Some were also sceptical in relation to the effectiveness and quality of this technology and questioned the financial cost of its implementation.

[1] https://www.met.police.uk/live-facial-recognition-trial/
[2] https://publications.parliament.uk/pa/cm201719/cmselect/cmsctech/800/80006.htm#_idTextAnchor027

It is fundamental to consider the perspectives of operational police officers before implementing such technological systems and consider some of the practical and contextual challenges that could be faced if these systems are implemented. For instance, FR error rates seem to vary depending not only on the characteristics of the individuals but also on lighting and weather conditions. Findings from the BWC study highlight the challenges faced when using these cameras in both rural and urban areas (Miranda, 2019b), as it can be problematic to capture footage when it is dark (even more so in remote/ rural areas). More attention needs to be given to these contextual challenges (lack of light, adverse weather conditions) in order to comprehend how citizens can be captured through the lenses under different circumstances.

Dr Diana Miranda
Northumbria University
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