JUSTICE SUB-COMMITTEE ON POLICING

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

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As a result of interest from the Sub-Committee in my recent study exploring the impacts of body-worn cameras (**BWC**), I hereby provide further evidence that explores the views expressed by UK police officers on the use of live facial recognition (**LFR**) technology.

1. Background and methodology

This research project explores police-public encounters mediated by BWC. Methodologically, we consider police officers' perceptions of and their engagement with these technologies in their professional practice. In total 26 semi-structured interviews were conducted with police officers from two British Police forces in different geographic locations (South and North of the UK). These interviews were audio recorded and transcribed verbatim, without recording participants' names.

2. Findings

These interviews were focused on the use of BWC and considered how these devices might be accompanied with other emerging technologies (such as LFR). However, the position of optimism and confidence in the potential uses of this technology was mainly shadowed by a position of scepticism and disbelief in scenarios where LFR is possible or sensible currently. In this short paper we will explore some of the concerns that were discussed by police officers when considering the potential use of LFR.

2.1. Acceptance and resistance

The participants discussed how the adoption of an emerging technology such as LFR is subject to a process of either acceptance or resistance from both members of the public and police organisations. Several examples were used to illustrate how technologies were accepted in the past and are now used in a daily basis (such as automatic number plate recognition) and how LFR could be just a "step further" in order to "read the picture, the image, of the person" in the future (Larry, 12 years of service). Nonetheless, officers agreed that they will face **backlash from the public** if LFR is not deemed to work effectively. For instance, PC Mark (27 years of service, firearms unit) believed that:

> *"We will be using a lot in the **future**. I wouldn't say debug it and get one that works but then it is just one of those things that will be **used to fight crime**. I would imagine lots of people would **moan about it to start with**, but I would imagine once we get a system that works properly **we will end up using it**."*

Even if LFR is reliable in the long run, the police officers discussed **strategies of resistance** that will be deployed in order to **avoid being recognised by the**

technology. The participants expect such strategies and knowledge to always develop as detection technologies are adopted by law enforcement. Illustrating this with the example of how gloves are used to avoid fingerprint identification, PC Larry discussed strategies that aim to avoid recognition through masking facial features (from makeup to accessories such as sunglasses, hats and fake beards):

> *It is like fingerprints. When police started using fingerprints, criminals started wearing gloves. Because they know we can detect them using their fingerprints. All you would do if you're going to commit a crime is you'd **alter your face**, maybe grow a beard. You can quite easily, if you know what you're doing with makeup, quite severely alter your image, can't you? (…) I don't think it would take people long to realise that actually I can kid that system and I can con it into not recognising me. (…) Baseball cap down low, big sunglasses, and a fake beard; can't tell who the heck it is.*

Resistance will not only be enacted by members of the public but also by police officers, as the participants perceived that generally there is a cultural **aversion to change in policing** (in particular, when considering the use of new technologies more broadly). PC Ross (4 years of service) illustrated this resistance:

> *We are several years behind constantly. A lot of it we don't need. We were issued these laptops and tablets and things, we don't need it. You've got a pen, use your pen. It doesn't run out of battery, it's always got signal. It works, **stick with the old ways**, they're better because it works. If something doesn't work, nine times out of 10, I won't use it because what's the point?*

2.2. Confidence and scepticism

2.2.1. Confident views

Despite resistance to technological change, some participants considered that **LFR might play a significant role in future policin**g due to the importance of visual surveillance systems in their professional practice. Richard, a frontline response officer (9 years of service), stated that most of their work relies on CCTV footage and how often investigations are closed because it was not possible to identify or recognise the suspect:

> *If there was **facial recognition software**, (…) that would be a **huge benefit** to us. If we could run pictures through it and it comes up with **matches**, especially in more major investigations, that would be very beneficial. If you are trawling through hours and hours of CCTV footage **looking for a suspect**, if a computer can scan it in minutes for you, it will save a lot of time and make positive identifications…*

PC Katerine (10 years of service) also highlighted the relevance of having an electronic system capable of pointing them in the right direction when **identifying the suspects**:

*It's not a bad thing. If anything can **help**. I don't know everybody here (…) Just now we get the CCTV and whatever and people, you put them up in the muster room for people to have a look and see if they can identify them and if you had a **computer system** that **can do that for you**, that would be ideal. It would cut your time in half doing your job if people… I just don't know if the quality is up to that. I don't know. I have no idea but if it was it would be ideal. It would be half the battle for us.*

This can be particularly relevant when dealing with **large events and public order incidents** in urban areas that tend to be busy. As illustrated by PC Matthew (4 years of service) and PC Ian (16 years of service), respectively:

*The more technology we have to **assist** us in our role the better really. I suppose, yes, on a practical level, certainly with maybe **large public** or situations where they'd be going to like a **football match** or something, there'd be a definite need for that technology.* (PC Matthew)

*If you are going to an **event or a large crowd** [unclear] that was for that and you had cameras that had that technology on it, well then yes, I can see it. (…) When a lot of people are funnelling through a small gap like a football turnstile... We've got violent football fans. (…) If you had facial recognition at turnstiles at sporting events like football, then these people can be stopped from coming in.* (PC Ian)

LFR was perceived as **valuable** because it might provide answers to situations where the human being is often perceived as not telling the truth. According to PC Katie (3 years of service): "**people lie** to us and they give us a different name. So unless they're arrested for something, unless they're brought into here and fingerprints are taken, [LFR] can sometimes prove or disprove that". This would be particularly relevant with footage collected by **BWC** in the opinion of PC Steph (4 years of service) and PC Carol (2 years of service), considering that it can **capture facial features** with more quality and definition than CCTV systems:

*If that technology got good enough that we could really be relying on it then, yes, absolutely because **BWC** is going to **capture somebody's face** a lot better than any CCTV system could. So, yes, as and when that technology really starts to push forward then, yes, I think they would be good* (PC Steph)

*Well, CCTV you can't really get here. With the BWC, you're right up close, getting their faces or directly. Because sometimes, with **CCTV**, it's a **bit distorted**, their faces, you can't see. So, it'd be good. The body worns are an excellent tool for going in and getting the faces because it's so clear.* (PC Carol)

Nonetheless, the discourse associated to this confident and optimistic position normally departed from the premise of a **future scenario** where the technology is working effectively and available to police forces. PC Oscar (14 years of service) illustrated this future scenario by saying:

> *If that **helps us to do our job**, then yes, I'm all up for that and I think **that is to come**. I don't think obviously that's something that is readily available to us just yet, and I'm pretty sure that's being looked at and designed and if worked on, evolving through other forces potentially. But if Review came back to us a couple of years down the line and said, look, we've got this package now. We have the software upgrade which will allow you to start doing identification via facial recognition from our database, from the cloud, is that something that interests you? I would say, yes please, (…) If that's my only avenue to identify that suspect, then yes, I'm all up for that. It's just another piece of evolution and development which we will obviously match towards, strive towards.*

2.2.2. Sceptical views

Notwithstanding these optimistic views, the discourse of the participants constantly highlighted **elements of uncertainty and scepticism** in relation to LFR, its implementation and use. Accordingly, we provide a set of 6 views detailed by the participants below. Indeed, even if the participants agreed that it would be useful to incorporate FR capabilities in visual surveillance systems, such use was not perceived as realistic at present. As illustrated by PC Amy (2 years of service):

> *I don't know how useful or how much we would use something like that. Obviously, there are times where we get, say, CCTV footage of somebody who's committed a theft, and if people can't identify that person, we don't have any way of detecting the crime. Obviously, it would probably come in handy in cases like that, and you could get a higher detecting rate, but I can't see that happening any time soon. Maybe that's me being sort of sceptical.*

- **<u>View 1</u> - Technical capabilities: disbelief, distrust and ineffectiveness**

Most police officers remained sceptical of the use of LFR and its technical capabilities. Firstly, this technology was often associated with **fictional representations** of effectiveness when providing the results and searching for faces in a database. In the words of PC Larry: "I honestly don't know if the technology is like they make you believe in a Hollywood film where they can go through this massive database and go, oh, that's so-and-so, he's a terrorist, because we've got his footage". Secondly, the participants **did not** seem to **trust** a technology that is automated and dictated by non-human actors such as computers, contrary to other elements of biometric identification. According to Sgt Patricia (14 years of service): "I don't know how much I'd trust that, because… Well, the only two things we go off now are DNA and fingerprinting, and both of those things are individual to the person. I don't know how much I would trust technology if facial recognition… Because you're relying on a computer, aren't you…". Overall, the participants still deemed the technology to be **ineffective**. According to Sgt Lawrence (12 years of service): "facial recognition is **pretty terrible** from what I've seen of it. I've seen it work a couple of times and it's come out with all sorts of **random decisions** and… so I don't think facial recognition technology is where it needs to be at the moment".

- **<u>View 2 - Financial cost: technology implementation</u>**

Facing a climate of budget constraints and financial pressures, the participants highlighted the costs of implementing LFR systems. PC Kevin (12 years of service), based in a firearms unit, discussed the need to keep up with technological development but also how such investment comes at a high price: "I think if you were to have an open chequebook, the possibilities for technology and policing, you'd be like Robocop, you would have so much ability to do things. But it's just that cost, and sometimes you look at it and you roll your eyes". That is particularly significant with the potential implementation of LFR and, as mentioned by Sgt Felicity (18 years of service) when questioned in relation to the use of this technology in the future: "**it sounds expensive**, so no".

Participants agreed that technologies such as mobile **fingerprint** devices already serve the purpose of **recognising and identifying an individual**. In the words of Kevin "they always had fingerprint pads. If you said you're John Smith and you go, right, okay, scan your finger there, right, it's saying you're not John Smith, you're Dave Smith, John's brother, or whatever". The same is reiterated by PC Andrew (5 years of service): "I'm sure you could talk to somebody who would tell you the facial recognition would be brilliant, but if we've any concerns about a person's identity, we just run their fingerprints, you get it that way as well" and PC John (9 years of service):

> *In terms of facial recognition, I'd imagine there might need to be some improvement [unclear] in relation to the quality of footage. (…) they're probably going to struggle to get decent facial recognition. But if they were to have an option where it can be integrated to take a photo, so you could use that to try and link it into something. But then the same thing, we've got the **fingerprint scanner** that can probably do the same job before you've got facial recognition. You've got to look at your fingerprints first.*

Overall, the possibility of incorporating FR capabilities in visual surveillance systems did not seem plausible, considering the **financial costs** its implementation would entail. As stated by PC Ross:

> *Possibly a very long way in the future because it's going to be public service in the public sector, it's not going to be well funded, and I don't think we're going to see that for a very long time. (…) I don't know enough about facial recognition software until it's very common, it would be nice to see it, but it will come with its own issues…*

- **<u>View 3 - Footage collection and storage: data management, privacy and security</u>**

The participants argued that **footage** would need to be **collected continuously** in order to enable live recognition. This was deemed to be particularly problematic with the use of BWC, as police officers in general agreed they should only record specific interactions with these devices. However, in a scenario of

constant collection, **concerns** were raised in relation to **footage security and its storage**. According to Sgt Nelson (13 years of service):

> *I guess that would have to be done then live, so if we're going to have facial recognition technology, you'd have to be **recording the whole time** to enable that. (…) We'd have to have a system then where we're recording live, picked up the whole time, otherwise the person we want, that it recognises, will be gone by the time we've even registered it. (…) That brings in the problems about us having to record the whole time (…) And **that presents a whole new problem**, doesn't it, **of security**.*

Insp Oliver was convinced that LFR will eventually be implemented and raised the need of using it proportionately in order to **manage the data effectively**: "I would bet my pension on it [LFR implementation]. (…) I would like to think, anyway, that it would be used proportionately. I mean it would be used to investigate more major crime. (…) Once again, it will be all about managing the data and how that's looked after. And whether it's dealt with proportionately at the time". PC Matthew was particularly concerned with its legal challenges and **privacy** implications: "obviously from the public's point of view I'm sure there'd be a concern about invasion of privacy and everything else". Sgt Simon (12 years of service) also raised some concerns in relation to data collection and the need to follow due process and clearly explain why that technology is being implemented so the reasons are clearly understood and its **use is not deemed invasive** by members of the public:

> *We'll just talk about the facial recognition with body worn, I just don't think it's the way forward. There is always benefits to having access to it, (…) but, there's processes in place, and those processes are there for good reason because if you could just dip in and out all of that, you could… Yes, it's quite scary I think (…) keeping up with what's relevant, but it's got to be relevant and useable and useful to us, and **not being invasive**. Everything's got to be done for a reason. We got to **be able to justify** what we've done, I think.*

Overall, the participants considered the implications of using LFR, how **human rights** might be compromised and questioned, in particular, if the use of this technology by law enforcement is in the **public interest**. As illustrated by PC Daniel (5 years of service):

> *It would be well in the future [the implementation of LFR]. I think it would be extremely useful. But for us, in an ideal world imagine your camera could recognise that person without you even going up and asking for their details and that person's wanted? Yes, that would be very handy. But I imagine there'd be **a lot of questions from the public** because it would be **scanning all the time**. (…) It would definitely be **invasive** because if members of the public knew that this was scanning your face and stuff like that I would be—even though I've done nothing wrong—you'll probably be, your reaction is, oh the police are coming. I'll just walk away because I don't want to be scanned. Like, it's almost like a futuristic movie that you're watching where these robots*

> *can down scan people, you know what I mean? (…) It would be great to scan everyone but **morally, I don't think that's probably right at all.***

- ### View 4 - Public perception of the police

Building on previously explored issues, the participants were also concerned with how this technology will impact **public confidence** (or lack of) in police work. If LFR is perceived negatively by the public, its purpose(s) and use(s) must be justified in order to avoid damaging public's perception of the police. In the words of Sgt Simon:

> *I think that's quite a big step because then if you're going down that route [LFR], you're looking at having this on all the time almost. Not that has to be on, but it's always there in the background and I think, yes, in some respects [unclear] like a CCTV or town CCTV system is always running. Some of them do have some data energy in there. But, I think that would perhaps **damage the perception of the police with the public** because it's less difficult. If it's always recording and they know it's always evidence gathering, it just looks like we're sleeping. I think if it happens it's going to be a long way off, and I think it would need to be really justified as to why. Really justified. I don't think I'd be keen on that.*

- ### View 5 - Purpose(s) of the technology: the need for clarification

Some of the issues previously raised by the participants relate to **why LFR is deployed** and the need to **clarify the purpose** of using this technology. When considering the need to recognise and identify someone, the participants argued that is not necessarily the case when dealing with law-abiding citizens. This is particularly relevant when considering the implementation of FR capabilities in BWC, since that is not deemed to be the purpose for using this technology. Still in the words of Sgt Simon: "we don't need to know the identity of everybody because most of the people we deal with are law abiding. If you're walking down the street, **I don't need to know who everybody is**. It might be beneficial because you might find Joe Bloggs who's wanted (…) but actually is that right, … because that's what you do, **you are surveilling everybody**, and that's not the spirit of the BWC". PC Ian also reiterated this by highlighting that there is no need to record every interaction with members of the public, by comparing their professional practice with the process of gathering research data:

> *I think that [LFR] would be better not necessarily on the officer's personal body-worn camera because you're not going to walk about with it on 24 hours a day. (…) You don't have to record every interaction. How many conversations we have today? There's many but you won't record them all. Would you walk about as a researcher and do what you do, recording everybody's behaviour and everybody's...? You know what I mean? It's an interest you have but is it valuable or no? Or is it just certain times you want to do it, like now? The camera's the same.*

- ### <u>View 6</u> - Contextual (ir)relevance: urban and rural areas

When discussing the potential uses of LFR, some concerns were raised in relation to the **context** in which the technology would be used. In the words of PC Daniel: even if FR technology is not particularly new, "it's only used in the most elite of elite". For instance, when discussing this with PC Andrew (based in a city with a population of nearly 200,000 inhabitants), he did not seem to believe the investment in such technology would be the most valuable for the type of criminal activity they usually have to deal with in this **metropolitan area**. Considering it is not a megacity (eg. London), this participant argued that they have a better knowledge of the population they often interact with:

> *I don't know how useful it would be in XCITY in relation to, you know… even though it's a city, it's probably a big town, you know, you will know the majority of the bad men and women that you deal with, it's the same offenders kind of again, so I don't think you would need facial recognition. When you're talking about the Metropolitan Police, they're going to be dealing with terrorist incidents, you know, organised criminal gangs. Well, don't get me wrong, we have that up here, but they're probably on a lesser scale, so I think that they could probably use their money elsewhere more effectively.*

The same concern applies to **rural settings** and the debatable usefulness and relevance of LFR in areas where people normally know each other. Even if initially PC Matthew revealed optimism with the potential use of FR (in particular when considering large events), since he is based in a rural setting, he did not perceive the use of this technology as relevant in such context due to their **interactions with the public** occurring on "**a smaller scale**". In his words: "obviously I think in terms of use maybe it wouldn't have quite as big an impact being kind of a rural setting because the people you encounter tend to be on a smaller scale, one on one maybe as opposed to large situations where people's images are being recorded". Lastly, even if LFR could be considered and applied in such settings, the participants raised some practical concerns in relation to the quality of the internet connection they have available. As mentioned by Sgt Nelson: "with our radios we struggle [with reception] in certain parts, especially if you go more rural (…) So, if we're having a live feed of a camera, that backs up somewhere else, then I would suggest that you would struggle with the connection sometimes".

In **summary**, when considering the sceptical positioning of the participants in relation to visual surveillance systems and potential implementation of LFR, the following concerns were discussed:

- **Disbelief, distrust and ineffectiveness of the technology**
- **High financial cost of implementation**
- **Data management, privacy and security issues when collecting and storing footage**
- **Negative impacts on public perception of the police**
- **The need to clarify the purpose(s) of the technology**

- **Contextualisation of the use(s) of the technology (urban and rural areas)**

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