

**JUSTICE COMMITTEE**  
**SCOTTISH BIOMETRIC COMMISSIONER BILL**  
**SUBMISSION FROM DR CHRISTOPHER LAWLESS, DURHAM UNIVERSITY**

**Author Biographical Details**

1. I am currently an Associate Professor within the Department of Sociology at Durham University. During the last fourteen years I have specialized in conducting academic research on forensic science and biometrics from a social scientific perspective. This research area has evolved to encompass a number of themes and topics, and there has been active engagement between social scientists and forensic science stakeholders. My own work has focused on the sociological analysis of ethical decision-making on biometric and forensic issues; public understandings of, and engagement with, biometrics and forensic science; the management of relations and communications between stakeholders; the use of forensic information in criminal investigations; and the shaping of professional practice. I addressed these and other issues in my book *Forensic Science: A Sociological Introduction*, and I have also published numerous peer-reviewed academic papers on related subjects.<sup>1</sup> I submitted written evidence and provided oral evidence to the House of Lords Science and Technology Committee Inquiry into forensic science which took place between 2018 and 2019, and which, along with my book, was cited in their final report.<sup>2</sup>

**1. What are your views on the establishment of a Scottish Biometrics Commissioner as a new body to scrutinise the police?**

2. I broadly welcome the proposed establishment of a Scottish Biometrics Commissioner (SBC). I do suggest however that the recommendations of the Independent Advisory Group (IAG), who reported in March 2018, continue to be given full consideration. In what follows a number of my responses refer to and cite the 2018 IAG report.

3. In my view the increasing potential impact of biometric systems on publics and police, the potential for considerable increase in different forms of biometric data, and the potential power of harnessing biometric data to emerging computing technology, urgently necessitate the need for independent oversight.

4. I believe it is important for the SBC to adopt an extensive perspective regarding the police use of biometric data in Scotland. Criminal investigation entails a range of

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<sup>1</sup> See for example Lawless, C. (2013) 'The Low-Template DNA Profiling Controversy: Biolegality and Boundary Work Among Forensic Scientists', *Social Studies of Science*, 43(2), pp.191-214; Lawless, C. and Williams, R. (2010) 'Helping with Inquiries, or Helping with Profit? The Trials and Tribulations of a Technology of Forensic Reasoning', *Social Studies of Science*, 40(5), pp.731-755.

<sup>2</sup> <http://data.parliament.uk/writtenevidence/committeeevidence.svc/evidencedocument/science-and-technology-committee-lords/forensic-science/oral/92062.html>; House of Lords Science and Technology Select Committee (2019) *Forensic Science and the Criminal Justice System: A Blueprint for Change*. 3<sup>rd</sup> Report of Session 2017-19, FN.52, para.45, p.16; para.133, p.35; para.164, p.42.

processes from crime scene to court and beyond, involving different stakeholders (such as crime scene examiners, forensic scientists, police officers, lawyers, jurors etc) with potentially very different experiences and understandings of biometric data. While I believe it is appropriate that oversight be focused on Scottish policing bodies, some consideration should be given to how the SBC may work with other stakeholder bodies in the fields of forensic science, law and ethics, including professional representative organizations.

5. I believe it is vital for the SBC to adopt a fully proactive public engagement role given the potential impact on publics, and concerns about how certain groups (such as children, minority groups, relations of suspects etc), may be affected by the use of biometric methods.

6. I believe legislation to oversee biometrics in Scotland is workable and appropriate given the population and size of the Scottish jurisdiction.<sup>3</sup> There may even be some lessons for other jurisdictions, such as England and Wales, for how biometric governance could be organized and managed.

7. On the other hand, the potentially increasing range of biometric data and technological affordances may present resourcing issues for the SBC, particularly as time passes, and I believe this necessitates further consideration.

8. I am most concerned that the SBC role currently only appears to be part-time (0.6 FTE).<sup>4</sup> Given the potentially extensive range of activities the SBC may be expected to undertake, and the range of potential challenges, I suggest that some thought be given as to whether the SBC's role should be full-time.

## **2. What are your views on the proposed role, responsibilities and enforcement powers of the Scottish Biometrics Commissioner?**

9. The proposed role for the SBC appears to be very wide-ranging, seemingly encompassing regulatory issues, validation, ethical concerns and public engagement, in addition to matters of retaining or deleting biometric data of individuals. Given the potential variety of biometric data under consideration, the SBC may face resourcing challenges, not least in terms of time. I wish to enquire what scope has been considered for the delegation of responsibilities and enforcement powers.

10. I believe that ethical, regulatory and operational issues involving biometrics may often be intertwined. I believe this also points to a series of interdisciplinary challenges, and that rigorous consideration should be given to the experiential profiles and skill sets of potential candidates (see paragraph 27).

11. There are possible questions concerning how the remit of the SBC will align with other key actors within and outside the Scottish jurisdiction. One question concerns how the SBC will work with the Forensic Science Regulator (FSR). There may be

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<sup>3</sup> Scottish Government (2018) Independent Advisory Group on the Use of Biometric Data in Scotland. Para.9.15, p.72.

<sup>4</sup> Scottish Biometrics Commissioner Bill Financial Memorandum, para.8, p.2.

scope for the SBC to formally oversee recommended standards developed through the work of the FSR. I suggest that the SBC should work to maintain and strengthen relations between Scottish policing authorities and the FSR, and to avoid any perception of competition between the roles of the SBC and the FSR. I suggest that communication between the SBC and the FSR should begin at the earliest possible opportunity.

12. The emphasis of the Bill appears to focus mostly on the SBC's relationship with policing authorities and law enforcement. There appears however to be less detail within the Bill concerning the SBC's potential relationship with the private sector. I note that the IAG report suggests that the scope of the SBC 'may' be extended to the private sector.<sup>5</sup> I believe that a constructive relationship between the SBC and the private sector is imperative from the outset, given that the latter could be a key driver for technological development in the future. The experience of the FSR in working with the private sector could be very useful.

13. The SBC should address the possibility of cross-sector 'function creep', whereby biometric data intended for one purpose (e.g. genealogical research, medical use etc) might be considered for use in criminal investigations. This possibility has raised increasing ethical concerns over whether such instances might breach principles of informed consent. The SBC could provide steer on the implications of attempting to use biometric data originally collected for non-criminal justice purposes, and be attuned to ethical issues and related matters.

14. There may be scope for the SBC to consult with colleagues in other sectors (e.g. health, education etc) on the use of biometric data and to consider operational, legal and ethical issues in concert.

15. I note the concern over police trials of facial recognition systems in England and Wales.<sup>6</sup> It seems unclear to me exactly what scope is provided for the SBC to oversee such activity in Scotland. Would police trials of biometric systems require prior permission from the SBC? More detail on the potential powers of the SBC to oversee police trials of biometric systems would be welcome.

16. Regarding the review of the work of the SBC:<sup>7</sup> Given the fast-moving nature of biometric technology, I suggest fairly short review periods, possibly every 3 years. I agree with the IAG of the possible need for earlier review in the initial stages of the new oversight regime.<sup>8</sup>

17. Further questions relate to how the SBC will engage with the challenge of data management. I understand the Home Office is planning a more integrated system for

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<sup>5</sup> Scottish Government (2018) Independent Advisory Group on the Use of Biometric Data in Scotland. Para.9.33, p.76.

<sup>6</sup> Office of the Biometrics Commissioner (2019) *Commissioner for the Retention and Use of Biometric Material: Annual Report 2018*. Paras.28-31, pp.10-11.

<sup>7</sup> Scottish Government (2018) Independent Advisory Group on the Use of Biometric Data in Scotland. Para.9.26, p.75.

<sup>8</sup> Ibid.

certain forms of biometric data (Home Office 2018).<sup>9</sup> How well-placed would the SBC be to consult on plans for data management in Scotland and indeed what is the vision for data management in this jurisdiction?

**3. What are your views on the provisions in the Bill for the drawing up of a Code of Practice by the Commissioner, and how compliance with the Code is monitored and reported on?**

18. In my view, a Code of Practice based on broad principles to oversee a wide array of biometric data forms, provided these principles are the right ones, could potentially represent a solution to the issue of the possible exponential evolution of biometrics, and which might hold lessons for other jurisdictions. These principles should however be fully reviewable.

19. I note the following on page 10 of the 2018 IAG report:

‘Having some of the rules and procedures in a Code of Practice, which is itself kept under review, allows for the sort of flexibility which may be necessary in an area where advances in the relevant science and technology can occur quickly. We consider it crucial for rules and oversight to anticipate, or at least keep pace with, technological and other developments. Ideally, to allow this to happen, the Commissioner would work with those who are improving existing technology or developing new technology.’<sup>10</sup>

While I broadly support the above statement, I believe further consideration should be devoted to expectations regarding whom the SBC might wish to consult when developing the Code of Practice. This could include representatives from the police, the private sector and academia.

20. The 2018 IAG report states in paragraph 5.3:

‘Public bodies dealing with private bodies should ensure that their partners in the private sector operate in accordance with these principles.’<sup>11</sup>

How exactly would the SBC guarantee that private partners uphold the principles of the Code? How would the SBC ensure private companies comply with validation requirements?

21. I believe much more clarity is needed regarding the SBC’s relationship with the private sector, in the light of the potential for biometric technology to evolve quickly, which may be due in part to private sector activity. Paragraph 6.7 of the 2018 IAG report raises the issue of accrediting private companies to ensure compliance with the

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<sup>9</sup> Home Office (2018) *Biometrics Strategy: Better Public Services, Maintaining Public Trust*. London: Home Office.

<sup>10</sup> Scottish Government (2018) Independent Advisory Group on the Use of Biometric Data in Scotland, p.10.

<sup>11</sup> Scottish Government (2018) Independent Advisory Group on the Use of Biometric Data in Scotland. Para.5.3, p.54.

Code of Practice.<sup>12</sup> Possible issues may arise concerning commercial confidentiality and accreditation costs. Would private partners be required to submit data for validation purposes? Would private companies be expected to bear costs of accreditation? Concerns have been reported in England & Wales over costs of accreditation with regulatory standards, particularly among small-to-medium enterprises (SMEs) where resources may be tight.<sup>13</sup>

22. I believe there are potential challenges to be met in balancing compliance with the Code of Practice and related benefits, with a possible concern over ensuring that the private sector is not over-burdened with bureaucracy if Scottish law enforcement bodies wish to rely on them.

23. Who might ultimately be sanctioned for non-compliance with the Code of Practice – police bodies or private sector firms who may be involved in the provision of biometric systems?

24. In the course of my work on the Lords inquiry I became aware of the possibility that commercial forensic firms in England and Wales could sub-contract work. It may be useful to consider how the Code of Practice would apply and be enforced in the light of such a possibility in relation to the provision of biometric services.

25. I note with some concern the Financial Memorandum accompanying the Scottish Biometrics Commissioner Bill assumes that ‘the cost of implementing the recommendations of the Code is...expected to be minimal’.<sup>14</sup> I strongly suggest that this assumption be reviewed at an early opportunity. A widening series of challenges may incur extra costs to implementing the Code. Challenges to implementing the Code of Practice may include the increasingly wide diversity of forms and sources of biometric data. How might the Code be updated to allow for new technology? This is potentially a significant challenge, given the need to consider standards and validation relating to new technologies, and indeed there may be considerable extra staffing needs and other resource challenges in the future.

26. What thought has been given to the challenge of scrutinizing the functioning of algorithms which may be used in biometric systems? There may exist considerable challenges in relation to systems using machine learning. The UK Biometrics Commissioner has repeatedly expressed concerns over the ‘black box’ problem of machine learning:

‘...as systems develop their pattern-matching autonomously, it is no longer clear on what basis matching is being claimed and therefore difficult for courts to judge the veracity of evidential claims.’<sup>15</sup>

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<sup>12</sup> Scottish Government (2018) Independent Advisory Group on the Use of Biometric Data in Scotland. Para.6.7, p.58.

<sup>13</sup> House of Lords Science and Technology Select Committee (2019) *Forensic Science and the Criminal Justice System: A Blueprint for Change*. 3<sup>rd</sup> Report of Session 2017-19, paras.84-85, pp.23-24.

<sup>14</sup> Scottish Biometrics Commissioner Bill Financial Memorandum, para.31, p.7.

<sup>15</sup> Office of the Biometrics Commissioner (2019) *Commissioner for the Retention and Use of Biometric Material: Annual Report 2018*. Para.22, p.7.

The SBC may also face similar challenges to the courts, although the UK Biometrics Commissioner raises the possibility that future developments may enable machine learning systems to 'explain' their judgements (ibid). The SBC could liaise with the UK Biometric Commissioner on such technical issues to enable them to carry out their duties in a sufficiently informed manner.

**4. What are your views on the appointment process for the Commissioner and the funding being provided to enable them to carry out their role?**

27. As before, I believe the oversight of biometrics to be a highly interdisciplinary endeavour, bringing together *inter alia* science and technology, law, policing, and ethical and social matters. I would welcome much further clarity and detail on the kind of expected skill sets and experiential profiles of preferred candidates for the role of SBC. Through which channels would the SBC expected to be recruited from? Is it expected that the SBC would have a primarily legal, policing or scientific background (or perhaps even some combination of these), or even some other kind of experience?

**5. Do you have any other comments regarding the Bill?**

28. I welcome the suggestions made in the 2018 IAG report for an Ethics Advisory Group to assist the SBC, and I urge that this suggestion be implemented. The possible composition of such an Advisory Group merits further consideration given that biometrics is an interdisciplinary issue which cuts across the fields of law, science, policing, ethics and other areas of expertise. I suggest that a variety of different forms of expertise should be represented on such an Advisory Group, including social science. Qualitative social science has achieved much in furthering understanding of ethical decision-making and anticipatory governance concerning biometric data.<sup>16</sup> My own research has examined tensions between ethics and innovation, and how commercial priorities may impact upon transparency and perceived use-value.<sup>17</sup> I have also drawn attention to ethical and social issues relating to public engagement, such as possible tensions between public expectations of biometric systems and the actualities of criminal justice processes.<sup>18</sup>

29. I note the IAG's emphasis on public engagement in their report, in which a chapter is devoted to this subject.<sup>19</sup> The Ethics Advisory Group could assist the SBC by commissioning or supporting rigorous research to ascertain public attitudes to

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<sup>16</sup> See for example Wienroth, M. (2018) 'Governing anticipatory technology practices. Forensic DNA phenotyping and the forensic genetics community in Europe', *New Genetics and Society*, Vol.37, No.2, pp.137-152; Machado, H. & Granja, R. (2018), 'Ethics in Transnational Forensic DNA Data Exchange in the EU: Constructing Boundaries and Managing Controversies', *Science as Culture*, Vol.27, No.2, pp.242-264.

<sup>17</sup> Lawless, C. and Williams, R. (2010) 'Helping with Inquiries, or Helping with Profit? The Trials and Tribulations of a Technology of Forensic Reasoning', *Social Studies of Science*, 40(5), pp.731-755;

<sup>18</sup> Lawless, C. (2016) *Forensic Science: A Sociological Introduction*. London, New York: Routledge, pp.20-38, 123-162.

<sup>19</sup> Scottish Government (2018) Independent Advisory Group on the Use of Biometric Data in Scotland, pp.32-38.

biometrics. It is important that such research takes diversity as fully into account as possible. Given the potentially fast-moving nature of technological developments, public attitudes may need to be gauged repeatedly over time.

30. It is important that publics receive information about biometrics which is clear and understandable, and which conveys its limitations as well as its affordances. I believe the SBC could act as a crucial channel to critically scrutinize the claims of technology producers, policy actors and police in relation to the development, and proposed and actual use of biometric systems, and to engage with publics on related issues. I believe it is important to consider the following question: *'Who are the publics'?* By this I refer to the possibility that different sections of society may experience biometrics in markedly different ways. For example, there are concerns that certain minority groups may risk misidentification by facial recognition systems due to bias in underlying algorithms.<sup>20</sup> I note also that the IAG identified persons under 18 as an important issue. There may also be differences in how suspects engage with biometric systems compared to the wider public at large, with many of the latter being eligible for jury service.

31. I am concerned there may be gaps in the understandings of legal practitioners regarding biometric information and how it is derived. New forms of technologically-mediated biometric evidence may considerably compound this issue. I suggest that the SBC should explore possible opportunities to work with relevant Scottish legal representative organizations to consider ways to help educate Scottish legal practitioners on the challenges underpinning the presentation of biometric evidence, and how probative claims of biometric evidence may be scrutinized.

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<sup>20</sup> Biometrics and Forensics Ethics Group Facial Recognition Working Group (2019) *Ethical Issues Arising From The Police Use of Live Facial Recognition Technology*. London: Home Office, p.2.