Biometrics and Forensics Ethics Group

Notes of the 10th meeting held on 16 December 2019, at Three Stone, 3 Stone Buildings, Lincoln's Inn, London. WC2A 3XL.

1.0   Welcome and introductions

1.0   Mark Watson-Gandy, Chair, welcomed all to the 10th meeting of the Biometrics and Forensics Ethics Group (BFEG).

1.1   Apologies had been received from Adil Akram, Liz Campbell, and Joanne Wallace.

2.0   Notes of the last meeting & matters arising

2.1   [Minutes of the last meeting](#) had been ratified and published.

2.2   Actions arising from the September 2019 meeting were discussed.

2.2.1   Action 3: Secretariat to liaise with FINDS team to follow up on the custody images retention and deletion information leaflet. The policy representative gave an update on this action, following discussion of whether to add information on custody images to the DNA leaflet it was decided this would not be possible as DNA would not be taken at every arrest, it may previously have been provided, whereas custody images were taken on all arrests. This action was ongoing and the BFEG offered assistance in the production of this leaflet.

2.2.2   Action 4: Science Secretariat to provide an update on the research agenda for the next meeting. A member of the BFEG gave an update on this for the group. The development of the research agenda was in the very early stages and a meeting would be held in the new year. A further update would be provided at the next BFEG meeting.

2.2.3   Action 8: Policy representative to ask members of the Law Enforcement Facial Images and New Biometrics Oversight and Advisory Board if they were aware of use-cases of police and private entities collaborations on the use of biometric recognition technologies. The meeting of this board on the 4th of Dec was cancelled because of the election so this action was ongoing.

2.2.4   All other actions were complete.

2.2.5   The Chair passed on his thanks to the members of the BFEG who provided advice to the Identity Security Team on the use for prenatal DNA testing as proof of paternity for nationality claims. The Identity Security Team were grateful for the helpful advice provided by BFEG.

3.0 Chair's update

3.1 The Chair had attended a meeting with Baroness Williams of Trafford, on the current work of the BFEG, which was positive and regular meetings were proposed. The Chair also attended; a conference of Home Office Arm's Length Bodies which included a presentation on the work of the BFEG; and a meeting of the Home Office Science Advisory Council (HOSAC). HOSAC indicated that they would welcome approaches from BFEG for collaborative working.

4.0 Home Office Policy Update

4.1 It was noted that the Court of Appeal had granted an appeal against the live facial recognition (LFR) judgement that was handed down on the 4th of September. The hearing was expected to take place in spring 2020. A member commented that two views were emerging on the Bridges case; that the ruling can be applied to other cases and LFR is legal, or that the ruling is narrow and specific to the South Wales case and does not set a legal precedent. The representative from HO Policy noted that if the appeal was upheld the view would be that the legal framework was satisfactory, however this did not preclude further legislation in response to political and public concerns.

4.2 Home Office Data and Identity was continuing to consider biometrics governance arrangements. Options would be put to ministers for strategic decision once a new government was formed following the election. The BFEG working group on biometrics had agreed to assist with considering governance arrangements. In addition, Home Office Science were providing Data and Identity with a 'horizon scan' to ensure that proposed governance arrangements were future proof.

4.3 Reviews of custody images and the surveillance camera code were ongoing.

4.4 The group were informed that Home Office Biometrics (HOB) has undertaken extensive testing of the face recognition algorithm to be used across the Home Office in support of passport and visa applications and retrospective searching of police custody images. Further research was being carried out to investigate any inherent algorithmic bias on the grounds of ethnicity, age or gender. This was welcomed by the BFEG. A member asked for clarity on what level of error in the algorithm would be deemed as acceptable.

Action 1: The BFEG was interested in the data behind the algorithm used to confirm identity when submitting a passport application online. Secretariat to follow up on this and find out the level of acceptable accuracy.

4.5 The Home Office had been advising the Centre for Data Ethics and Innovation (CDEI) on their production of a draft framework on data analytics and artificial

intelligence (AI) in policing. The CDEI would be discussing this framework at item 7. They were also liaising with the CDEI on a CDEI snap shot on facial recognition.

4.6   The requirements from the BFEG for a data ethics framework for the Home Office were being reviewed in light of other relevant publications, a further update on this was planned for the next BFEG meeting in March.

4.7   The Data Analytics Competency Centre were working on practical ethical guidance for data science to form part of an internal data ethics guidance suite. Advice from the Complex Datasets working group of the BFEG would be incorporated into the design.

4.8   HO Policy reported that the Forensics Capability Network (FCN) was working with the HO and UK Research and Innovation (UKRI) on developing a picture of unmet current and future needs in forensic science research and how increased funding might add value. A member asked for the group to be informed of who had been consulted for views on research in forensic science to ensure that no relevant areas had been overlooked. Another member requested that research on ethics in forensic science also be considered in the research needs assessment.

4.9   A member asked about a Conservative manifesto pledge to create a National Crime Laboratory and whether there was any update on this. The representative from HO policy responded that the plan for this laboratory was not yet clear.

Action 2: Science Secretariat/Policy to provide an update on the National Crime Laboratory proposed in the Conservative manifesto for the next BFEG meeting.

4.10   Concern was expressed by one member that there was a risk of fragmentation of forensic research with a number of groups looking into this. The policy representative responded that the FCN was now an operational identity and it was not reasonable for the HO to completely oversee their investigation into research needs because of the impact on the criminal justice system.

4.11   It was also reported that the HO was working with Transforming Forensics (TF) and a digital working group to develop an understanding of challenges in digital forensics in terms of technology, capability and policy. In addition, a deep dive into presenting forensic evidence in court had been agreed and would feed back into the Criminal Justice Board, forensic sub-group. This deep dive would not be able to use juries for feedback so would be looking at other ways to gather this evidence. A member mentioned a Canadian report that used real-world cases and sought feedback from juries post-trial.

Action 3: Member to share Canadian research on presenting forensic evidence in court.

5.0   Biometric Commissioner's update

5.1   The Biometrics Commissioner highlighted the effect of the increased use of voluntary attendance (VA) by police resulting in a decrease in biometrics being taken. The impact of this on reduced opportunity for speculative database searching and in reducing the size of biometrics databases was discussed. Members commented that VA was implemented to prevent arrest for the purpose of collecting biometrics and to counter inappropriate arrests for vulnerable individuals, in addition there had been a reduction in the number of custody facilities meaning that VA reduced the need for long travel times, particularly in rural locations. It was agreed that the issue was complex, however the effect on database size should be taken into account when considering biometrics policy.

5.2   The Biometrics Commissioner also stated that changes to police bail made by the Policing and Crime Act 2017 were causing problems for police forces, as large numbers of suspects were now 'released under investigation' (RUI) rather than on bail. Not all police IT systems had been updated to reflect this method of release so automatic triggers for biometric deletion may not be activated. As a result, biometrics may be held for longer than was necessary and/or unlawfully. It was noted that prior to the general election the Home Office had planned to undertake a review of the RUI system.

5.3   The Scottish Biometrics Commissioner bill was discussed, and it was noted that the matter of enforcement powers was being reconsidered by the Scottish Government. Provision of a Scottish Biometrics Ethics Group had been agreed. Discussions were ongoing regarding the scope of the bill and whether it should be extended beyond the criminal justice system, an extension to scope may be considered after the bill had passed. Principles were being developed to cover situations were biometrics were taken in Scotland but loaded to databases in England and governance of national law enforcement agencies, such as the British Transport Police and National Crime Agency, in Scotland.

6.0   FIND SB update

6.1   An update was provided on the access of the Ministry of Defence (MoD) to policing data via the Defence Science and Technology Laboratory (Dstl). A joint MoD and HO legal position had been received which would bring police oversight to aspects of the Dstl Fingerprint Bureau. The Chair of the FINDS Strategy Board had commissioned counsel for the National Police Chiefs' Council (NPCC) to review the legality of the MoD accessing policing data held on IDENT1.

6.2   The group were informed that DNA sharing via Prüm went live in July 2019 with the Metropolitan Police Service as the national data processor. Data had since been regularly exchanged with five EU Member States (Austria, Germany, The Netherlands, Spain and France). A successful feasibility evaluation with Germany took place in the summer for exchange of fingerprint data. It was noted that the FINDS Strategy Board would be the oversight body for Prüm exchanges and the governance and progress on Prüm would be included at the FINDS Strategy Board.

6.3   The group were advised that the main focus for FINDS was moving to the new National DNA Database platform (NDNAD2) to give the National DNA Database a more robust framework of operation. NDNAD2 was now expected to be delivered on the 6th of April 2020. Discussions were ongoing between the Home Office Biometrics Programme (HOB), FINDS, and the Forensic Science Regulator (FSR) over quality assurance of the software and IT as the FSR had stated her ambition that all databases supporting the Criminal Justice System would be required to be certificated to TickIT*plus*, or an equivalent set of standards.

6.4   The BFEG were asked to consider a proposal from FINDS for retention of all the Short Tandem Repeat (STR) markers (loci) in a DNA profile generated from DNA 20+ PCR chemistries on the NDNAD. It was explained that some Forensic Service Providers (FSP) were profiling DNA using chemistries that would detect more loci than the 17 currently held on the NDNAD, however only the loci within the DNA-17 set would be loaded to the NDNAD.

6.5   An expert working group, with representation from FSPs and Law Enforcement Agencies (LEAs), had considered extending the number of DNA loci held on the NDNAD and proposed that these additional loci should also be loadable to the NDNAD.

6.6   The Group were informed that allowing these additional loci to be present on the NDNAD would enhance the confirmation and elimination of matches on the NDNAD for both UK and international cases, through Interpol and Prüm exchanges. It was explained that the Missing Persons DNA Database (MPDD) already held all DNA 20+ loci and this had proved useful for both confirming and eliminating matches both in the UK and internationally. The extension would also include additional loci on the Y-chromosome. This would provide an alternative mechanism to determine the sex phenotype as mismatches with assigned gender were known to occur with the current sex marker, amelogenin alone.

6.7   Members of the BFEG asked the representative from FINDS about the risks of this extension as these had not been set out. It was explained that although there was a risk that the addition of the Y-STR markers could potentially be utilised for purposes wider than conventional database comparisons in reality because of the number of markers proposed to be added the risk was low. One of the DNA 20+ chemistries was in use in Scotland and all the markers from this were already being retained on the Scottish DNA database.

6.8   One member commented that the proposed extension was useful in terms of the additional Y-STR markers but that the other DNA loci added little in terms of discrimination power and the benefits came from alignment with the Scottish and international DNA databases. The member added that the risks with broader DNA chemistries came from phenotypic and ancestry information that could be obtained rather than from the additional STR loci.

6.9   The extension of the NDNAD to capture additional STR markers was recommended by the BFEG. A paper seeking approval would be presented to the January 2020 FIND Strategy Board, it was anticipated that this change would not be actioned until the third stage of the implementation of the new NDNAD (NDNAD2).

6.10   The BFEG passed on their thanks to the head of FINDS who was leaving at the end of January 2020.

Action 4: Two members offered to produce a guide to DNA profiling to assist with the detail in FINDS updates

7.0   CDEI presentation – Data analytics in policing

7.1   This item was presented by representatives from the Centre for Data Ethics and Innovation (CDEI), an independent expert advisory group who provide cross sector advice cross departments on artificial intelligence (AI) and data uses.

7.2   The CDEI was developing a draft Framework to help the police develop and deploy data analytics tools legally and ethically. The Framework sat within the policing strand of the CDEI review into bias in algorithmic decision-making which was launched in March 2019 and an interim report was published in July 2019. The CDEI was taking a sector-by-sector approach to the review and one of the sectors selected was policing.

7.3   The policing sector was described as particularly interesting, with police forces managing increasing amounts of data in order to identify connections and predict future risks, a large amount of which could lend itself to sophisticated analysis. The representatives from the CDEI noted that picture was inconsistent between forces in England and Wales with individual forces developing their own tools, policies and digital ethics oversight structures. A number of forces and others had expressed a desire for a clearer national guidance.

7.4   The BFEG were asked to provide overall comments on the relevance and scope of the Draft Framework and identify links to related work being carried out by the BFEG.

7.5   A member asked if the CDEI work was data driven and it was explained that the CDEI had taken an interview approach. Further work looking at analysis may generate data.

7.6   The group discussed the need to provide support for police forces who would be using algorithm-driven technology to manage the inherent bias in these systems. The representatives from CDEI explained that the framework would firstly address whether an algorithm was the right solution to the problem.

7.7   The group discussed the data available for analysis and the issues of under and over reported crimes. It was noted that CDEI would not assess the quality of the data but would recommend that this was done. The CDEI stressed public engagement was important, and the framework would encourage police forces, to think about public engagement with specific questions for example, were community groups involved from the beginning of the proposal, and was contact made via an ethics committee that already exists or, if not, should a new ethics committee be created.

7.8   Ethical oversight of police use of data was discussed and it was noted that while forces had their own ethics groups these were not specifically for data, except the West Midlands Police Ethics Committee, and a central oversight would be helpful although it was not yet clear which body should provide this. A member of the BFEG asked if the National Police Chiefs' Council (NPCC) would be an appropriate vehicle for this. The reply was that CDEI had spoken with the an NPCC group, the Information Management and Operational Requirements Coordination Committee (IMORCC). The College of Policing had also been considered but would need increased capacity and additional skills in AI. A member responded that since the College of Policing, set the best practise they should also set the guidance, using the NPCC risked internal vetting of ethical issues.

7.9   A member also highlighted the framework should encourage the police forces to consider the failure modes of data analytics tools, as if the outputs were incorrect or unclear this could have severe consequences.

7.10   A member noted that there would be general recommendations across the four sectors that the CDEI were reviewing and that it would be useful to summarise these. The CDEI could consider guidance on the types of software that would be recommended for particular uses reflecting the data protection principles to ensure data protection by design and by default. A representative from the CDEI responded that they had found that a lot of the issues were cross cutting. On the point of recommending particular tools the difficulty would be what the recommendation to government would be as the CDEI would have no power to prohibit the use of certain tools.

7.11   A member raised the issue of guidance not being followed because of a lack of capacity and resources and whether the CDEI could highlight the need for support

to adhere to data principles. A representative from the CDEI agreed with this and stated that they would definitely make that point.

7.12   The group discussed the issue of data creep and one member commented that often the justification for data use was not clear enough and that there should be more openness on error rates and bias.

7.13   In terms of the CDEI seeking input from relevant stakeholders it was recommended that they speaking to Police Scotland who were developing their own ethical framework.

8.0   Genetic Genealogy

8.1   Two members of the BFEG had written a short report on Genetic Genealogy. The report had been shared with the BFEG previously and had been recently updated. The report introduced genetic genealogy and described how it could be utilised to identify suspects in criminal cases. The report also considered the feasibility of using such techniques in the UK, as most of the uses to date had been in the USA. The BFEG was asked to consider the expanding this piece of work to include specific advice on the ethics of genetic genealogy, together with considering future, further expansion of the National DNA Database (NDNAD) to capture the additional information generated in next generation sequencing, such as phenotypic characteristics or ancestry. The members agreed this should be two separate pieces of work.

8.2   It was suggested if the police decide to use the genetic genealogy technique in the future for law enforcement purposes, the paper could include ethical issues that should be considered before using this technique. A member queried if the police in the UK were using this technique. It was confirmed that no police forces in the UK were routinely using this technique, however they could decide to so in the future. There was a concern raised about individuals who could be identified using this ancestry techniques who were not linked to a criminal case. The BFEG agreed if the police were to use such techniques in the future it should be after all standard techniques had been attempted.

8.3   The BFEG agreed to expand the paper to include ethical issues that should be considered if using this technique is used for law enforcement purposes. The HO policy representative agreed this would be useful if they received enquiries about the use of genetic genealogy.

Action 5: The secretariat to send members an editable version of the paper for comment and the BFEG to return comments to the secretariat.

9.0   Futures tools for issues in Biometrics

9.1   The Home Office Science futures team presented this item. The BFEG was provided with an introduction to future tools and how they could assist the BFEG in their work.

9.2   Futures was an approach to identifying the long-term issues and challenges shaping the future development of a policy area and to explore their implications for policy development. The Futures Toolkit could be used for the following:

   a. Gathering intelligence about the future
   b. Exploring the dynamics of change
   c. Describing what the future might look like
   d. Developing and testing policy and strategy

9.3   The types of future tools that could be used included; seven questions, described as a useful way to gather information from individuals on what future success would look like and identify key issues for further examination; horizon scanning, a tool that could be used to identify trends; and driver mapping, to identify what drivers were most important in shaping the future and would have the biggest impact in the future.

9.4   The future tools could be useful to the BFEG, as Biometrics and Forensics were evolving, and emerging technologies could provide new opportunities for policing but could also raise new ethical questions. The futures team confirmed they had recently worked with the Facial Recognition Working Group (FRWG) on their evidence gathering day. The aim of using the seven questions tool was to encourage the speakers to identify critical issues, trends, and desired outcomes, and to determine what actions would be required to meet those outcomes. The responses from the interviews were summarised and presented to the working group before the evidence gathering day. The FRWG agreed the seven questions was useful in identifying common themes, however the speakers were having to provide the same information twice. The Futures team were also working with the HO Data and Identity Directorate to investigate future governance scenarios for emerging technologies and data uses.

9.5   The BFEG was invited to discuss if they would like to incorporate the use of futures tools into their work, and which topics they would consider using the futures tool for. A member queried if the toolkit could be adapted depending on the piece of work. It was confirmed the toolkit was there as a structural support and could be adapted to meet the needs of the project. A FRWG member spoke about the risk from providing a summary from the outcomes of a futures tool in terms of leaving out elements that could be important. In addition, another member of the FRWG expressed a concern about a loss of independence if the tools were used by HO

futures staff rather than members of the group. It was agreed that if futures tools were to be utilised in future this would be used by members of the group. Members also agreed the BFEG were already utilising some of these future tools in their work.

10.0   Police Digital Services Team Facial Recognition Trial

10.1   A representative from the Police Digital Services team (PDS) presented this item. The PDS team were proposing a trial to compare the outcomes of reviewing CCTV footage to find people when assisted by facial recognition technology, with reviewing the footage without using facial recognition technology. The study would review historic CCTV footage from closed cases. The proposal had already been shared with the FRWG who provided comments.

10.2   The BFEG were invited to comment on the key ethical considerations identified by the PDS. A member queried the use of the term "manually reviewing the footage". It was explained that the term was to confirm no facial recognition technology would be used when reviewing the footage. A member queried the term "closed cases" and highlighted the risk of uncovering new information during the trial relating to the closed case. It was explained that if new information was uncovered this would be disclosed to the relevant senior officer to review what action should be taken. It was mentioned that this was not clear in the extract of the Data Privacy Impact Assessment (DPIA) presented to the group. The PDS would update the wording of the DPIA to make this clearer and share this with the BFEG.

Action 6: DPIA for retrospective facial matching trial to be updated and circulated to BFEG.

11.0 HOB Ethics Working Group (HOB) update

11.1   An update was provided to the BFEG by the chair of the HOB Biometric Ethics Working Group (HOB EWG). The HOB EWG had met once since the last BFEG meeting. Two new members had joined the HOB EWG. The HOB EWG work involved reviewing the DPIAs for the HOB programme. The chair of the HOB EWG sought clarity on the future work plans of the group. It was suggested that the chair of the HOB EWG should meet with the HOB programme representative, the BFEG chair and the secretariat to discuss the next steps for the group.

Action 7: Science Secretariat to arrange a meeting between the HOB programme representative, BFEG chair and HOB E WG chair.

12.0   Facial Recognition Working Group update

12.1   An update was provided to the BFEG by the chair of the Facial Recognition Working Group. A new member had recently joined the group. The group had met with the Information Commissioner's Office (ICO), the Centre for Data Ethics and Innovation (CDEI), and a representative from the Metropolitan Police Service to gather information for their report on public-private (PP) partnership use of Live Facial Recognition (LFR).

12.2   The FRWG had held an evidence gathering day at on the 3rd of December where the group heard from the Biometrics Commissioner, the Surveillance Camera Commissioner and a representative from Big Brother Watch, all of whom raised similar comments about the lack of oversight of PP partnerships.

12.3   The group reported that they were not aware of any public-private partnerships using LFR currently in operation in the UK. There was a concern that the lack of live use-cases would affect the ability of the group to deliver a thorough report. The group was planning to hold another evidence gathering day in early 2020. Members were asked to inform the working group if they were aware of any public-private partnerships using LFR. A member suggested contacting all the police forces. It was also suggested that further discussions with the ICO may be useful as they were producing their own report on the public-private partnership use of LFR.

Action 8: Secretariat to seek information on police/private partnership use of live facial recognition through National Police Chief's Council and ICO.

13.0   Complex Datasets Working Group update

13.1   The chair of the Complex Datasets Working Group (CD WG) provided the BFEG with an update on the group's activities. The group had recently met to discuss their Project Initiation Document (PID). The group had also received a presentation from the Home Office Data Analytics Competency Centre (DACC) on a machine-learning classification model for the group's ethical consideration. The group agreed to produce a report on the ethical issues that should be considered by the HO for this specific model. The chair of the working group stated that additional members would be welcome to join this working group. A further meeting of this working group would be held in early 2020 and a short report with ethical considerations and recommendations produced by spring 2020.

13.2   The PID had been circulated to the group for comment. A member suggested including a line in the background section on acceptable errors and types of errors. This would be reviewed by the Chair of the working group. There were no other comments on the PID and it was agreed by the BFEG.

Action 9: Chair of CD WG to review and update PID.

14.0   Date of the next meeting

14.1   The date of the next meeting will be 4th March 2020.

Annex A – List of attendees

	Attendees	Role
1	Mark Watson-Gandy	Chair
2	Sue Black (teleconference)	BFEG member
3	Louise Amoore	BFEG member
4	Isabel Nisbet	BFEG Member
5	Richard Guest	BFEG Member
6	Nina Hallowell	BFEG Member
7	Julian Huppert	BFEG Member
8	Mark Jobling	BFEG Member
9	Nóra Ni Loideain	BFEG Member
10	Charles Rabb	BFEG Member
11	Thomas Sorell (teleconference)	BFEG Member
12	Denise Syndercombe-Court	BFEG member
13	Jennifer Temkin	BFEG Member
14	Peter Waggett (teleconference)	BFEG Member
15	Paul Wiles	Biometrics Commissioner
16	Andrew Thomson (teleconference)	FINDS Unit, HO
17	Carl Jennings	Identity Unit, HO
18	Alex MacDonald	Identity Unit, HO
19	Jen Guest	BFEG Secretary, HO
20	Nadine Roache	Science Secretariat, HO

Apologies: Liz Campbell, Adil Akram, and Joanne Wallace