we asked

Expert Panel of Emergent Technology – report on Facial Recognition Technology

In October 2021 the Expert Panel were asked to consider the report on *Facial Recognition Technology: Consideration for use in Policing*, which Police commissioned from Dr Nessa Lynch (an Associate Professor at Victoria University of Wellington) and Dr Andrew Chen (a Research Fellow at the University of Auckland) and provide feedback to assist Dr Lynch and Dr Chen in the review of the report prior to finalisation.

In particular, the Panel's advice was sought on implementing the report's recommendations, including identifying te ao Māori and broader ethical considerations.

Specific advice was not sought on the scope or methodology adopted by Dr Lynch and Dr Chen in responding to their engagement, although the Panel were given the option to offer general observations on additional or alternative considerations that ought to inform judgments about the implications posed by Facial Recognition Technology in a policing context.

they said

NZ Police Expert Panel on Emergent Technologies' consideration of *Facial Recognition Technology: Consideration for Use in Policing* by Dr Nessa Lynch and Dr Andrew Chen (EPET 21.4)

Terms of referral

1. The Expert Panel was asked to provide feedback on this report, to assist:
   a. Dr Lynch and Dr Chen in the review of the report prior to finalisation,
   b. the Executive-level Organisational Capability Governance Group (OCGG) to review and make decisions on the basis of the report.

   In particular, the Panel's advice was sought on implementing the report's recommendations, including identifying te ao Māori and broader ethical considerations.

   Specific advice was not sought on the scope or methodology adopted by Dr Lynch and Dr Chen in responding to their engagement, although the referral stated that the Panel may wish to offer general observations on additional/alternative considerations that ought to inform judgments about the implications posed by Facial Recognition Technology in a policing context.

General comments on the report

2. The Panel first wishes to acknowledge the extensive research and work that has gone into the preparation of this report. It is well written and researched, covers much important ground and makes some insightful points. We support all of the report's recommendations, though some of them will require more detail if they are to provide a practical framework for deployment of FRT. Specifically, **more work will need to be done to align the approach and recommendations of the report with the *New Technology Framework*.**[1]

3. The recommendations are, however, of a fairly high-level and general nature. The report does not provide the Police with specific guidance or direction at an operational level. This is not a criticism of the report, which was of course constrained both by time and by its own terms of reference. Rather, it is a recognition and reminder that such work will need to be done before deployment of FRT technologies can be seriously considered.

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[1] Luke McMahon, Carla Gilmore, New Zealand Police. *New Technology Framework* (New Zealand Police, Wellington, 2021).

4. The report is also necessarily speculative about the uses of FRT the Police may consider in future. As such, it is limited in terms of what it can say about any particular product or use case. Likewise, it does not consider in detail the evidence around the accuracy of particular products, or the current level of accuracy of FRT more generally, and does not reflect in detail on the probabilistic nature of the output of the FRT. It is of course imperative that **individual products and intended uses are thoroughly scrutinised as and when they are considered**.

5. As the report's authors note, there is a great deal of literature and research around the use of FRT, and the report was necessarily selective in what it referred to. It will be important for the Police to consider it together with the Victoria University report published last year,[2] but **more detailed and targeted (and of course, current) literature reviews will be required if considering use of FRT products in future**.

Issues for further consideration

6. The following are some additional considerations that the Panel believes ought to inform judgments about the implications posed by Facial Recognition Technology in a policing context.

<u>Speed and scale versus new capabilities</u>

7. There is an obvious attraction to improving the efficiency of Police searches by deployment of technologies like FRT. However, the report's reference to 'simply speed and scale improvements' (3.3) should not be taken to imply that there are no risks involved in changing these parameters: **if these technologies deliver inaccurate or biased outputs, increasing speed and scale has the potential to exacerbate unfairness and other problems**.

8. Likewise, while improving existing capacities may seem less concerning than enabling new capacities, the manner in which certain tasks are discharged can also have important implications. For example, we draw attention to the possible risk that reliance on the new technology may be at the expense of other lines of enquiry or more established forms of evidence. If the use of FRT were to confirm an officer's own

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[2] Nessa Lynch, Liz Campbell, Joe Purshouse, Marcin Betkier. *Facial Recognition Technology in New Zealand: Towards a Legal and Ethical Framework*. (December 2020)
https://www.wgtn.ac.nz/__data/assets/pdf_file/0010/1913248/Facial-Recognition-Technology-in-NZ.pdf?_ga=2.79484052.1894712568.1636344134-85783200.1636344134

intuition that a particular suspect is a match, then other lines of inquiry could potentially not be followed up. This kind of confirmation bias has in the past led to miscarriages of justice. **Careful consideration should therefore be given to whether the new technology is supplementing existing forms of enquiry, or potentially replacing them**.

9. Relatedly, even were the use of FRT and other technologies of surveillance shown to advance certain Police functions, attention should also be paid to their **potential to change social aspect of policing**, for example, with cameras increasingly replacing officers physically present in certain communities. While this is not inevitable, or necessarily entirely a negative outcome, it illustrates that the potential implications of the use of such technologies may involve taking a wider-angled perspective than the scope of this particular report.

10. As a general observation, the Panel wonders to what extent improvements in speed and scale of existing capacities will satisfy the principle of necessity in the *New Technology Framework.*

Authorisation and the need to distinguish between different uses

11. Careful consideration will need to be given to the appropriate level of authorisation required for different uses of FRT. For example, the distinction drawn in the report between treating FRT as 'an intelligence product, rather than a direct source of evidence for investigations' (5.3.2) is something that could be teased out more fully in future work. Specifically, is an FRT output to be treated as a source of 'evidence' only if it is intended to be introduced into court proceedings, or (as we would strongly suggest) any time it informs or triggers a Police action such as arrest or charge of a suspect?

12. In particular, we would caution that a narrow reading of 'direct source of evidence' could underplay the risk in many other situations. Indeed, introduction as evidence in a prosecution is probably not the most high-risk use, as judges and evidence law are likely to offer safeguards against the use of inaccurate or unreliable technologies, or over-reliance on the technology more generally. Contrast this with the situation where, for example, an armed response unit is deployed following the identification of a terrorist suspect by FRT.

13. Similarly, **the report's identification of live FRT as being of particularly high risk should not be taken to imply that retrospective use is invariably low risk**. A retrospective image match could form the basis for a decision to arrest a suspect. In

the Detroit wrongful arrest case,[3] retrospective use of FRT was used as a basis for arrest despite warnings that the output of the facial recognition system was an investigative lead only and not probable cause for arrest. The key distinction seems to the Panel to be between direct reliance on FRT for critical decisions, and its use only to prompt further investigations. **The Panel's view is that no use should be made of FRT to inform critical decisions, either live or retrospective, unless and until robust processes for evaluation and authorisation are in place.**

14. Authorisation protocols will need to distinguish between the use of an FRT product at all, and its use in a particular situation. Although the report finds that there is little scope for FRT to be accessed by Police staff in general, as opposed to specialist units like the National Biometric Information Office, we anticipate that there could be growing demand for greater access to the technology. A 2019 report from the US IJIS Institute points out that police officers have been 'very adaptive and ingenious' at identifying new uses of FRT technology.[4] That report discusses emergency field uses where 'instant action' may be needed.

15. While recognising that there are no current plans to trial or use FRT in emergency field contexts, the Panel anticipates that there will in time be greater temptation/pressure to do so. We can readily imagine situations where, for example, there is a request to use the technology to identify a suspect believed to be about to carry out an imminent terror attack. Such scenarios present both the strongest case for using the technology, and the greatest risk if it is fails. The sort of delay involved in making an application to the NBIO (report, p.30) will prove frustrating to officers and in some cases negate the benefit of the technology. Unless the Police intend to exclude such uses outright, we suggest that it would be prudent to begin thinking about possible protocols for the deployment of FRT in a range of cases, should a time come when it is deemed sufficiently reliable.

16. The Panel supports the recognition by the report authors and the Police that greater clarity is needed around the use of informal images taken by individual officers. Even the most rigorous policies will offer little reassurance if officers can work around them using their personal devices.

17. The potential for misuse of FRT by the Police needs to be acknowledged and addressed. The measures that need to be taken to minimise the likelihood of this

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[3] Drew Harwell 'Wrongfully arrested man sues Detroit police over false facial recognition match', *Washington Post*, 13 April 2021; Kashmir Hill 'Wrongfully accused by algorithm' *New York Times*, 24 June 2020.
[4] Integrated Justice Information Systems (IJIS) Institute. *Law Enforcement Facial Recognition Use Case Catalog* (March 2019) https://www.theiacp.org/sites/default/files/2019-10/IJIS_IACP%20WP_LEITTF_Facial%20Recognition%20UseCasesRpt_20190322.pdf

occurring need to be set out, including clear policies, appropriate training and measures to investigate and act upon reported cases of misuse.

Is live FRT a search?

18. The report raises the important question of whether use of live FRT constitutes a search, and is therefore subject to the Search and Surveillance Act 2012. Should the Police consider using this technology, this would need to be preceded by further consideration of this issue and the consequences that would flow from a decision that live FRT meets the definition of a search.

Continuing concerns of accuracy and bias

19. The Report refers to 'continuing concerns about accuracy and bias'[5] in relation to the use of FRT by law enforcement. This needs to be addressed in a substantive way by the Police prior to the use of any particular tool. The Panel acknowledges that these concerns will be very difficult to rectify. If they cannot be rectified to an acceptable degree, then FRT, or certain uses of it, should not be deployed.

What, though, amounts to 'an acceptable degree'? It is unlikely that FRT will attain 100% accuracy, outside of the context of comparing identical images. This raises the important issue of what level of accuracy is acceptable. Will it suffice for the tool to be more accurate than a human assessor? This is a question that will require detailed consideration in the context of different uses. The Panel would draw attention again, though, to the importance of considering not only how often errors occur, but what sorts of errors they are likely to be. Are false negatives or false positives more common? Are certain communities likely to be particularly adversely affected? **The tolerance for error should also be lower when the FRT is directly influencing a decision, rather than initiating other kinds of enquiry, though even in the latter context, important consequences can follow** (e.g. someone mistakenly removed from the list of suspects.)

20. With regard to bias, Panel member, Associate Professor Khylee Quince, is on the Police appointed independent panel and research team *Understanding Policing Delivery* - a project looking specifically at whether, where, and to what extent, bias exists at a system level in the Police's operating environment. The panel recommends that it would be beneficial to incorporate the findings of the *Understanding Policing Delivery* Panel into the Police's policy on FRT.

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[5] EPET 21.4 Report on Facial Recognition Technology at 74.

21. The Panel endorses the report's warning about the dangers of reliance on OSINT (Open Source Intelligence) information, where the images have not been in the control of the Police and manipulation cannot be excluded. Such manipulation need not be malicious; CCTV footage can be manipulated to improve the quality of an image/fill in 'gaps.' Considerable caution is needed when using FRT on such images.

Partnership with Māori as partners under Te Tiriti

22. The Panel strongly endorses the report's calls for consultation and partnership with Māori. We reiterate,[6] though, that **consultation and consideration are not synonymous with partnership**, especially if these occur late in the approval process. The report's recommendation regarding investment into research *alongside* Māori would be positive step, but as with other suggested uses of technologies that will have a significant or disproportionate effect on Māori, serious consideration must be paid to what partnership and consultation look like, if there is to be more than a token acknowledgment. As a general observation, the Panel draws attention to the tension between Treaty and partnership obligations, and deploying technology that has the potential to exacerbate and extend current inequities in the criminal justice system

Emotion recognition technology

23. The report makes relatively passing reference to some FRT adjacent technologies such as emotion recognition. The Panel draws attention to significant criticism of past and current applications of emotion recognition technology, with experts warning of the risk of bias and discrimination.[7] A thorough consideration of these limitations and risks will be required should the Police ever consider using such technology.

Databases of images

24. We recognise that a review of Police use of facial images is ongoing. We therefore limit our comments on this aspect at this time. We recommend, however, that the Police take note of certain policy decisions taken by the UK Met Police, which has ruled out using certain images in conjunction with FRT, and a policy outlining which images may be downloaded from social media. The use of information taken from social media is in general a matter which merits some significant attention.

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[6] EPET 21.2 New Technology Framework and Updated Policy, at [9].

[7] Kate Crawford. 'Artificial Intelligence Is Misreading Human Emotion' *The Atlantic*, 28 April 2021. https://www.theatlantic.com/technology/archive/2021/04/artificial-intelligence-misreading-human-emotion/618696/; Oscar Schwartz 'Don't look now: why you should be worried about machines reading your emotions' *The Guardian*, 26 March 2019. https://www.theguardian.com/technology/2019/mar/06/facial-recognition-software-emotional-science.

Points for report authors

Bridges

At p 13 of the Report, the case of *R. (Bridges) v Chief Constable of South Wales Police*[8] is referred to. This should be clearer that the reference is to the High Court judgment, rather than the Court of Appeal decision[9] which disagreed with various aspects of that first instance decision. We acknowledge that the CA decision is discussed in detail later, but this reference has the potential to be somewhat misleading.

Interviews

The Panel would like more information about the interviews referred to in the Report. Who was interviewed, how were the interviews conducted and how was the interview data analysed? Although our remit does not extend to methodology, some of the report's conclusions about what is happening in practice are difficult to evaluate without knowing who was spoken to.

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[8] *R. (Bridges) v Chief Constable of South Wales Police* [2019] EWHC 2341.
[9] *R (on the application of Bridges) v Chief Constable of South Wales Police* [2020] EWCA Civ 1058.

we did

The Expert Panel's feedback was considerably helpful in providing insights for NZ Police to consider when developing the framework and policy for facial recognition technology. Some specific advice on the draft report was incorporated into the final version of the report by the authors Dr Lynch and Dr Chen.

The final report and the Expert Panel feedback has been provided to the NZ Police Executive Leadership Team to inform their decisions on the Police response to the report and recommendations, and has informed the development of an initial Facial Recognition Technology Response Plan for Police.

In relation to para. 16 in the Expert Panel's advice and Recommendation 2 - the Police Executive has updated the policy on photographing young people (effective December 2021) – no youth photos can be taken in any location unless the youth is arrested or under a summons. Steps are being taken to ensure that all existing casual photos of children and young people previously taken and stored on the Police National Intelligence Application, shared drives in districts and on iPhones will be deleted.

The final copy of the report on Facial Recognition Technology by Dr Lynch and Dr Chen has been pro-actively published and uploaded to our web page, along with a formal statement on the continued pause of live automated FRT, and an initial high level FRT Response Plan.