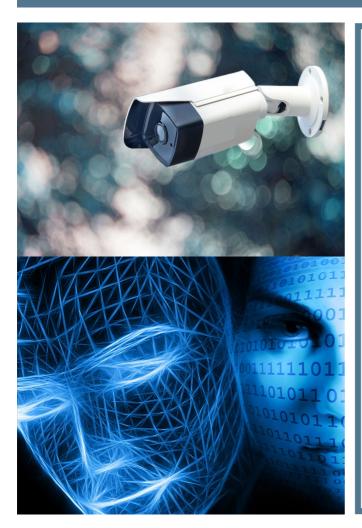# PUBLIC ATTITUDES TOWARDS THE USE OF AUTOMATIC FACE RECOGNITION TECHNOLOGY

Research at the University of Lincoln (UK) and the University of New South Wales (Australia) is the first to understand the attitudes of the public in different countries to the use of automatic facial recognition (AFR) by the police, governments, and private companies. This research has implications for policy decisions around the world.

Research shows:

→ Support for the use of AFR depends greatly on what the technology is used for, and who it is used by[1]

→ Trust is a major concern for the public – trust is highest for the police, followed by government, and lowest for private companies[1]

→ There is a need for clear legislation around the use of AFR by police, governments, and private companies, as well as in courts[1]

Automatic facial recognition (AFR) technology is based on algorithms that perform a series of functions, including detecting a face, creating a digital representation, and comparing this against other images to determine the degree of similarity between them. AFR is increasingly being used in law enforcement settings to perform identification, a one-to-many (1:N) search of a database to find a match to a target image. For example, the database may be a criminal watchlist, and the target image may be a CCTV image of someone committing a crime.

Algorithms underpinning AFR have rapidly improved in recent years[2], but trials of AFR deployed on city streets by police in the UK have reported high numbers of incorrect matches (i.e. false positives[e.g.3]). There is a lack of clear legislation around the use of AFR, which has led to debates around its use by the state and private users, and even calls for the outright banning of AFR.

Recent surveys of public opinion in the UK, Australia, and China showed different attitudes towards the use of AFR depending on who it is used by and what it is used for[4-6]. Our new research is the first to compare public attitudes across different countries[1].

PUBLIC SURVEY

We ran focus groups in the UK, Australia, and China, and surveyed over 3,000 people in the UK, Australia, and the USA, asking questions about their understanding of and attitudes towards the use of AFR in their country. We presented people with different uses of AFR and asked them to indicate the extent to which they agreed with each use by police, government, and private companies. We also asked people to indicate their trust in the different users and explain why, as well as asking questions around their own knowledge of AFR, and how accurate they believed the technology to be.

- Public trust was higher for police use (58%) than government (43%), and was lowest for private companies (18%)

- The most common reason to trust each user was "It is beneficial for the security of society"

- The most common reasons *not* to trust each user were "I am concerned about my data being misused" and "I do not trust that my data will be stored securely"

- Public agreement with the use of AFR to track citizens was low, but higher for governments (26%) and police (25%) than private companies (17%)

- Agreement with police use was high for searching for people who have committed a crime (89%), but low for searching for people irrespective of whether or not they have committed a crime (30%)

- Agreement was high for use in court when used in conjunction with other evidence (83%) but lower when used alone (34%)

SIMILARITIES AND DIFFERENCES BETWEEN COUNTRIES

Overall, attitudes of people in the UK, Australia, China, and the USA were broadly similar, although there were some interesting differences. People in the USA were more supportive of the use of AFR to track citizens, and indicated less trust in the police but more trust in private companies than people in the UK and Australia. Full data and questions are available at the link in reference 1.

IMPLICATIONS FOR POLICY

- We recommend that developers, system designers, vendors, and users of AFR (including police and governments) do more to publicise the use, data privacy, and accuracy of AFR.

- It is important for users of AFR (including police and governments) to justify their use of the technology, and know the capacity of their system.

- Governments should provide clear legislation for the use of AFR in criminal justice systems around the world. In the UK this could mean including guidance for AFR use in PACE.

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Principal researcher: Dr Kay Ritchie

Contact: kritchie@lincoln.ac.uk