Prohibit biometric categorisation in publicly accessible spaces, and any discriminatory biometric categorisation

What is biometric categorisation?

Biometric categorisation refers to the categorisation of individuals or groups on the basis of data about their bodies and behaviours. Even biometric categorisation systems which claim to sort people into supposedly straightforward categories such as gender have been shown to severely violate people's rights, and even irremediably undermine the rights of gender non-conforming people. Systems also exist that claim to infer complex and sensitive attributes such as political orientation, sexual orientation, and even 'criminality' on the basis of data about people's facial structure or biological characteristics.

These latter practices are extremely problematic, and have their roots in the discredited and racist 19th-century pseudoscience of physiognomy. As highlighted by Roma rights organisations, there is a historical continuity between past racist practices of profiling and discrimination and these contemporary applications of AI-driven biometric categorisation.

These long-discredited practices are unfortunately making an AI-driven resurgence in the European Union thanks to companies like Herta Security (**Spain**) who offer gender and racial profiling as part of their facial recognition services, VisionLabs (**Netherlands**) who categorise consumers on the basis of their appearance in order to manipulate their purchasing behaviour, and Cogniware (**Czech Republic**) who provide police with software to judge people based on what they wear.

Why we need prohibitions on biometric categorisation in public and on all AI physiognomy

In her 2021 annual report on *The Right to Privacy in the Digital Age*, the UN High Commissioner for Human Rights, Michelle Bachelet, notes that "uses of AI that inherently conflict with the prohibition of discrimination should not be allowed. For example, social scoring of individuals by Governments or **AI systems that categorize individuals into clusters on prohibited discriminatory grounds should be banned in line with these principles.**"

The International Biometrics + Identity Association (IBIA), described as the "leading voice for the biometrics and identity technology industry", has also stated that many forms of biometric categorisation are unscientific: "Facial recognition algorithms as a source of information about an individual's characteristics is not science. One cannot infer emotion, patriotism, criminal inclinations, sexual orientation, or other characteristics from a mathematical template of the face."

The use of biometric categorisation systems to surveil or monitor people in publicly accessible spaces lacks a legitimate justification and must be prohibited. Even something as seemingly innocuous as grouping people according to hair colour could be used as a proxy for racial profiling. Similarly, the use of such systems in workplaces or educational institutions could lead to highly intrusive surveillance in circumstances where employees, job applicants or students are already in a position of power imbalance. Discrimination could also occur in private spaces if disabled people may

This paper was drafted by Access Now, European Digital Rights (EDRi), Bits of Freedom, ARTICLE19 and IT-Pol. It is further supported by AlgorithmWatch, Fair Trials, the European Centre for non-profit Law (ECNL) and Panoptykon Foundation. It follows the Joint Civil Society Statement An EU Artificial Intelligence Act for Fundamental Rights, signed by 123 organisations in November 2021.

be misinterpreted by AI-based systems and therefore categorized erroneously due to unusual physical appearance, movement, voice or expression. This could lead to them being treated differently and potentially less favourably than others as, for example, customers or job applicants.

Moreover, AI systems used **in any context** to categorise people according to sensitive or protected characteristics such as 'ethnic origin', 'race', 'disability', 'sexual orientation' or 'political orientation' pose an obvious and severe threat of discrimination. **Such attempts to infer and categorise us according to these complex attributes amount to AI physiognomy and must be banned in all circumstances**.

Regarding these prohibitions, the European Data Protection Supervisor (EDPS) and European Data Protection Board (EDPB) issued a Joint Opinion on the AI Act that calls for a prohibition on *"**AI systems categorizing individuals from biometrics** (for instance, from face recognition) into clusters according to ethnicity, gender, as well as political or sexual orientation, or other grounds for discrimination prohibited under Article 21 of the Charter"* (p.13).

Amendments to the AI Act's treatment of biometric categorisation

There are a number of flaws and issues in the treatment of biometric categorisation in the AI Act.

Firstly, the definition of biometric categorisation in Article 3, paragraph (35) of the AI Act is at odds with how biometric categorisation systems are used in reality. This definition is limited to systems that use **biometric data**, defined in Article 3(33) as data relating "to the physical, physiological or behavioural characteristics of a natural person*, which allow or confirm the unique identification of that natural person*" [italics for emphasis].

However, biometric categorisation systems may use physiological data that arguably **doesn't always meet the high bar for identification required to be classed as biometric data** (e.g. inferring gender from sweat odour, grouping people according to ethnic origin on the basis of skin colour). In such cases, providers could argue that **their system is not subject to obligations under the Act.**

To avoid such loopholes, a new definition should be added to Article 1 for **biometrics-based data**:

> ***(33a) 'biometrics-based data' means data resulting from specific technical processing relating to physical, physiological or behavioural signals of a natural person which may or may not allow or confirm the unique identification of a natural person***

An amendment should be made to Recital 7 to clarify the need for the inclusion of a definition of biometrics-based data, and to clarify that it is intended purely to capture data that falls outside the scope of the existing definition of biometric data in the GDPR:

> *(7) The notion of biometric data used in this Regulation is in line with and should be interpreted consistently with the notion of biometric data as defined in Article 4(14) of Regulation (EU) 2016/679 of the European Parliament and of the Council[35], Article 3(18) of Regulation (EU) 2018/1725 of the European Parliament and of the Council[36] and Article 3(13) of Directive (EU)*

> *2016/680 of the European Parliament and of the Council*[37]. ***An additional definition has been added for 'biometrics-based data' to cover physical, physiological or behavioural data that may not meet the criteria to be defined as biometric data (i.e. would not allow or confirm the unique identification of a natural person) but which may be used for purposes such as emotion recognition or biometric categorisation. The addition of this definition does not narrow the scope of, nor exclude anything from, the definition of biometric data, but rather provides for a comprehensive scope for additional forms of data which may be used for purposes such as biometric categorisation but which would not allow or confirm unique identification.***

The definition of biometric categorisation should also be modified so as to clarify that it includes systems which use biometrics-based data:

> *(35) 'biometric categorisation system' means an AI system for the purpose of assigning natural persons to specific categories* ***or inferring their characteristics and attributes*** ~~*such as sex, age, hair colour, eye colour, tattoos, ethnic origin or sexual or political orientation,*~~ *on the basis of their biometric data* ***or biometrics-based data****;*

A complementary recital should be added to clarify that 'specific categories' means *any* attempt to stratify or assign a classifier to people on the basis of the specified data. This applies even if such classifiers were to assign, for example, a numerical scale or other proxy to refer to certain values, rather than an explicit category. The following recital is proposed following Recital 23:

> ***'Biometric categorisation systems' are defined as AI systems that assign natural persons to specific categories, or infer their characteristics or attributes. 'Categorisation' shall include any sorting of natural persons, whether into discrete categories (e.g. male/female, suspicious/not-suspicious), on a numerical scale (e.g. using the Fitzpatrick scale for skin type) or any other form of assigning labels or values to people. 'Inferring an attribute or characteristic' shall include any situation in which an AI system uses one type of data about a natural person (e.g. hair colour) to ascribe a different attribute or characteristic to that person (e.g. ethnic origin).***

Secondly, given the risk of unlawful profiling, discrimination and manipulation, a prohibition on the use of **all biometric categorisation in publicly accessible spaces, workplaces (including in hiring processes), and educational settings** should be added to Article 5 as a new paragraph:

> ***the use of biometric categorisation systems in publicly-accessible spaces, workplaces (including in hiring processes), and educational settings;***

Thirdly, in addition to the specific prohibition against biometric categorisation systems in publicly accessible spaces, workplaces (including in hiring processes), and educational settings, a general prohibition must be added against systems that amount to **AI physiognomy**. The use of AI systems to infer sensitive or protected attributes of natural persons represents an extreme threat to fundamental rights, and **violates the essence of our right to equality and nondiscrimination**. We thus propose adding the following new paragraph to Article 5:

- ***the placing on the market, putting into service or use of biometric categorisation systems, or other AI systems, that categorise natural persons according to sensitive or protected attributes or characteristics, or infer those attributes or characteristics, including:***
  - ***Sex***
  - ***Gender & gender identity***
  - ***Race***
  - ***Ethnic origin***
  - ***Membership of a national minority***
  - ***Migration or citizenship status***
  - ***Political orientation***
  - ***Social origin or class***
  - ***Language or dialect***
  - ***Trade union membership***
  - ***Sexual orientation***
  - ***Religion or philosophical orientation***
  - ***Disability***

In essence, this second prohibition fulfils the aim of the recommendation from the EDPS-EDPB Joint Opinion that ""biometric categorisation" should be prohibited under Article 5" (p.13).

Finally, further modifications must be made to Annex III to rectify issues with the treatment of biometric categorisation, see the related amendment documents on **regulating non-prohibited uses of biometrics in AI systems**. For a comprehensive position on stopping biometric mass surveillance in the AI Act, see also the amendment documents on **banning emotion recognition** and **prohibiting all remote biometric identification**. For more information on any of these issues, please contact Daniel Leufer (daniel.leufer@accessnow.org) and Ella Jakubowsa (ella.jakubowska@edri.org).

This paper was drafted by Access Now, European Digital Rights (EDRi), Bits of Freedom, ARTICLE19 and IT-Pol. It is further supported by AlgorithmWatch, Fair Trials, the European Centre for non-profit Law (ECNL) and Panoptykon Foundation. It follows the Joint Civil Society Statement An EU Artificial Intelligence Act for Fundamental Rights, signed by 123 organisations in November 2021.