Call for input

AI systems for emotion recognition in the areas of workplace or education institutions

Prohibition in EU Regulation 2024/1689 (AI Act)

Summary

The European AI Act (2024/1689) has been in force since 1 August 2024 and regulates the use of artificial intelligence (AI) in the European Union (EU). The AI Act has a risk-based approach. As a result, certain AI systems posing an unacceptable risk are prohibited from 2 February 2025.

It is up to the supervisors of the AI Act to explain how the prohibitions will be interpreted for the purpose of supervision. In order to prepare for this in the Netherlands, the Autoriteit Persoonsgegevens (AP) asks interested parties (citizens, governments, businesses and other organisations) and their representatives for needs, information and insights. We can use all input to consider the necessary further clarification of the prohibited AI systems.

On 27 September 2024, the AP published the first call for input on the first two prohibitions of the AI Act. In this second call for input, we address the sixth prohibition: AI systems for emotion recognition in the areas of workplace or education institutions (prohibition F). Later on, we will ask for input on other prohibitions. This document outlines specific criteria for these prohibited AI systems while requesting (additional) input through a set of questions. Contributions can be submitted until 17 December 2024.

The AP makes this call for input based on its role as a coordinating supervisor of algorithms and AI. For the purpose of this new task, the Department for the Coordination of Algorithmic Oversight (DCA) was established within the AP. This call for input also aligns with the preparatory work being done in support of future supervision of AI systems prohibited under the AI Act. The Dutch government is currently working on the formal designation of national supervisory authorities for the AI Act.

I. Background

1. **The European AI Act (2024/1689) has been in force since 1 August 2024.** This Regulation sets out rules for the provision and use of artificial intelligence (AI) in the EU. The premise of the AI Act is that while there are numerous beneficial applications of AI, the technology also entails risks that have to be managed. The legislation follows a risk-based approach. More restrictive rules will apply to those AI systems that pose a greater risk. Some systems entail such an unacceptable risk that their placing on the market or use is completely prohibited. This is, for example, the case with AI systems that are used for emotion recognition in the areas of workplace or education institutions. The prohibitions are set out in Article 5 of the AI Act.

2. **This call for input provides a preliminary basis for further clarification of the prohibitions in the AI Act.** To get there, this call for input aims to gather generic information and insights on, among other things, the functioning of AI technologies and the application possibilities that are relevant to the clarification of the prohibitions.

Prohibited AI applications as from February 2025

3. **The prohibitions in the AI Act will become applicable soon.** As from 2 February 2025, the prohibited AI systems listed in Article 5 may no longer be put on the European market or used. As from 2 August 2025, market surveillance authorities should be designated for prohibited AI systems, and sanctions may be imposed for violations of the prohibitions. Before this time, violation of one of the prohibitions could already lead to civil liability.

Supervision in the Netherlands on compliance with the prohibitions

4. **The Dutch government is currently working on legislation designating which supervisory authority will be responsible for overseeing compliance with the prohibitions.** In the Netherlands, the AP (through its Department for the Coordination of Algorithmic Oversight) and the Dutch Authority Digital Infrastructure (RDI) provide advice on the supervisory framework for the purpose of the AI Act. They do so in cooperation and coordination with other supervisors. In a second interim advice, published in May 2024, the Dutch supervisors proposed to make the AP primarily responsible for the supervision of prohibited AI. Following these recommendations, the AP will closely cooperate with other relevant supervisors for the supervision of prohibited AI systems.

5. **Because the prohibitions in this call concern AI systems that also fall under other Union laws, this call has been coordinated within the AI and Algorithm Group of the Dutch Cooperation Platform of Digital Supervisory authorities.** This is in the spirit of the requirement in Article 70(8) of the AI Act to consult relevant national competent authorities responsible for other Union law that covers AI systems.

II. About this call for input

Purpose: why do we ask for input

6. **It is up to the supervisors of the AI Act to explain how the prohibitions will be interpreted for the purpose of supervision.** In preparation for this, the AP is asking for information and insights from stakeholders (citizens, governments, companies and other organisations) and their representatives. All responses can be used for further explanation of the prohibited AI. Within the AP, the Department for the Coordination of Algorithmic Oversight is charged with this task.

7. **This call for input discusses the prohibition outlined in Article 5, paragraph 1 subparagraph f of the AI Act.** In addition to this call for input, the AP already published a [first call](#) on 27 September 2024 on two other prohibitions, namely the prohibition on manipulative and deceptive AI systems and the prohibition on exploitative AI systems.

8. **The legislative text and the recitals serve as the foundations for this call for input.** Given the scope and possible impact of this prohibition, a call for input is issued for this prohibition. Please refer to the annex to this document for an overview of all prohibitions in subparagraphs (a) to (g) of Article 5, paragraph 1 of the AI Act.

9. **This call for input highlights specific aspects of this prohibition.** The focus is on those specific criteria that determine whether or not an AI system is within the scope of this prohibition. Each criterion is briefly explained based on the legislator's recitals of the AI Act. In some cases, we provide an interpretation of our own. This is explicitly mentioned. We then pose several questions, the answers to which will contribute to a better understanding of the prohibition.

Process: this is how you send your input to us

10. **You decide which questions you answer.** You can also provide us with other relevant input in addition to the questions asked. Please send your input by email to **dca@autoriteitpersoonsgegevens.nl** by 17 December 2024. Please mention the topic "Call for input DCA-2024-02 AI systems for emotion recognition in the areas of workplace or education institutions", and your name and/or your organisation in your email. If desirable, you can provide us with your contact details so that we can reach you when we have further questions. When we have received your input, we will send a confirmation by email.

Follow-up: what do we do with your input?

11. **After the closure of this call for input, the AP will publish a summary and appreciation of the input on AI systems for emotion recognition in the areas of workplace or education institutions.** In this summary, we will refer in generic terms to the input received (e.g., "several sectoral representative organisations have indicated', "a developer of AI systems points out that", "organisations advocating for fundamental rights note that"). If preferred and indicated by you, we may explicitly name your organisation or group. Through our summarised and evaluative response, we can also share the acquired insights with other (European) AI supervisory authorities. For instance, the summary and appreciation of the contribution may be utilised in the drafting of guidelines on the prohibitions. At a European level, the AI Office - part of the European Commission- can collaborate with the market surveillance authorities to develop such guidelines.

12. **We will only use your input for our task to obtain information and insights about the prohibitions in the AI Act.** We will delete your personal data after publication of our summary and evaluation of the input, unless you have given permission for further use. For more information about how we process personal data, please see: [The AP and privacy](#).

More calls for input

13. **Following this call, there will be more calls for input on other parts of the AI Act, including other prohibitions.** The AP has previously called for input for manipulative, misleading and exploitative AI systems. In the short term, the AP wants to publish a call for input on prohibition C: AI systems for social scoring.

III. Definition of the prohibition on AI systems for emotion recognition in the areas of workplace or education institutions

General scope of prohibited AI systems

14. **The AI Act (and its prohibitions) apply to 'AI systems'.** Thus, in order to determine whether the Regulation applies, an important question is whether the product falls within the definition of an AI system:

> "A machine-based system that is designed to operate with varying levels of autonomy and that may exhibit adaptiveness after deployment, and that, for explicit or implicit objectives, infers, from the input it receives, how to generate outputs such as predictions, content, recommendations, or decisions that can influence physical or virtual environments."

15. **The prohibitions are addressed to providers (e.g. developers), deployers, importers, distributors and other operators.** These operators shall not place on the market, put into service or use the prohibited AI systems. Therefore, it is important for the above operators to ensure that they do not place on the market or use a prohibited AI system. To do so, they will have to verify whether the AI system in question falls under the prohibitions in Article 5.

Content of the prohibition

16. **This call for input focuses on the prohibition set out in subparagraph (f) of Article 5, paragraph 1.** The AI Act prohibits AI systems used to infer emotions from a natural person in the areas of workplace or education institutions based on biometric data (hereinafter: emotion recognition systems). In the remainder of this call for input, we will refer to this prohibition as 'prohibition F'. The Regulation defines this prohibition as follows:

> **Article 5, paragraph 1, subparagraph f ('prohibition F'):**
> "The placing on the market, the putting into service for this specific purpose, or the use of AI systems to infer emotions of a natural person in the areas of workplace and education institutions, except where the use of the AI system is intended to be put in place or into the market for medical or safety reasons;"

17. **The AI Act contains a definition of the concept of an 'emotion recognition system', which includes not only the inference but also the identification of emotions and intentions.** It is therefore assumed that the prohibition involves both the inference and the identification of emotions and intentions based on biometric data.[1] The AI Act defines an 'emotion recognition system' as follows:

> "An AI system intended to identify or infer the emotions or intentions of natural persons based on their biometric data."

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[1] See also recital 44 of the AI Act.

18. **It is important to note that AI systems for emotion recognition that are not put into use in the areas of workplace or educational institutions qualify as 'high risk'.** If AI systems intended to be used for emotion recognition qualify as high-risk under Annex III, paragraph 1, subparagraph c, the requirements applicable to these systems will have to be complied with. In addition, users of a system for emotion recognition are subject to specific transparency obligations. These are defined in Article 50(3) of the AI Act.

19. **Finally, the AI Act is without prejudice to the GDPR.** Obligations of providers and deployers of AI systems in their role as controllers or processors stemming from Union or national law on the protection of personal data continue to apply in the design, development or use of AI systems.

IV. Criteria and questions regarding the prohibition

20. **In order to structure this call for input, separate criteria of the prohibition have been set out in more detail in the next section.** These criteria are highlighted because they are important conditions for determining whether or not AI systems are covered by prohibition F. A brief explanation is provided for each criterion, based on the explanation provided by the legislator in the explanatory recitals to the AI Act. In some cases, explanations are based on the AP's own interpretation; this is clearly indicated. This is followed by some accompanying questions that you can use when giving your input.

Criterion 1: inference and identification of emotions and intentions

21. **The prohibition applies where emotions or intentions of natural persons are inferred.** It follows from the definition of an 'emotion recognition system' that, in addition to inference, it includes the identification of emotions and intentions. The AP therefore assumes that both the inference and the identification of emotions and intentions are covered by the prohibition.

Questions related to criterion 1
1. Can you describe AI systems used to infer or identify emotions or intentions?
2. Is it clear to you when a system is aiming to infer or identify emotions or intentions? If not, what part asks for more clarity? Can you elaborate on this?

Criterion 2: emotions or intentions

22. **The prohibition applies to the emotions or intentions of natural persons.** The recitals describe emotions or intentions such as happiness, sadness, anger, surprise, disgust, embarrassment, excitement, shame, contempt, satisfaction and amusement. The prohibition does not include the detection of readily apparent expressions, gestures or movements, unless they are used to identify or infer emotions. These expressions can be basic facial expressions, such as a frown or smile. Such expressions can also be gestures such as the movement of hands, arms or head, or characteristics of a person's voice, such as a raised voice or whispering tone.

23. **The prohibition shall not apply to physical states such as pain or fatigue.** This could include systems used to detect the state of fatigue of professional pilots or professional drivers in order to prevent accidents. AI systems that detect such states are outside the scope of the prohibition.

Questions related to criterion 2
3. Can you give examples of other types of emotions or intentions that can be inferred or identified with the use of AI systems?
4. Can you describe situations in which AI systems can be used to infer or identify physical states? In that case, are emotions or intentions also inferred or identified? Is the difference between emotions and intentions on the one hand and physical states on the other hand sufficiently clear to you?
5. Can you describe AI systems used to detect readily apparent expressions, gestures or movements? Do you know of situations where the detection of expressions, gestures or movements can be used to identify or infer emotions or intentions?
6. Is it clear to you when an AI system infers or identifies emotions or intentions or other states? What questions or need for clarification do you have in the context of this prohibition?

Criterion 3: on the basis of biometric data

24. **The prohibition applies to AI systems that use human biometric data to identify or infer emotions.** Biometric data is defined in the AI Act "as personal data resulting from specific technical processing relating to the physical, physiological or behavioural characteristics of a natural person, such as facial images or dactyloscopic data". However, as stated in the recitals, the concept of biometric data in the AI Act must be interpreted "in the light of" the concept of biometric data in the GDPR. Importantly, biometric data as defined in the AI Act (among others) enables the recognition of emotions of natural persons.

Questions related to criterion 3
7. What kind of biometric data can be used in these AI systems intended to infer or detect emotions?
8. In your opinion, how does biometric data form the basis for inferring or identifying emotions in practice? Can you indicate how this process works and illustrate this with (imaginary) examples?

Criterion 4: the areas of workplace or education institutions

25. **Prohibition F states that an AI system for emotion recognition must infer emotions of natural persons in the areas of workplace and education institutions.** An AI system for emotion recognition in situations *related to the* workplace and education is also covered by this prohibition.[2] Here, too, there are the same unfair power relations and AI systems for emotion recognition can, taking into account the far-reaching nature of these types of systems, lead to detrimental or unfavourable treatment of certain people or whole groups thereof. It can be assumed that the application of emotion recognition in, for example, home working environments, or in online or distance learning, therefore also falls within the scope of the prohibition. This also applies to the application of emotion recognition for recruitment and selection or application for education.

Questions related to criterion 4
9.   Can you describe AI systems used for emotion recognition in, or related to, areas of workplace?
10. Can you describe AI systems used for emotion recognition in, or related to, education institutions?
11. What questions or need for clarification do you still have in the context of this prohibition regarding criterion 4?

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[2] See recital 44 of the AI Act.

Scope of the prohibition

26. **Finally, it is important to emphasise the scope of prohibition F. The prohibition should not apply to the placing on the market, putting into service or use of AI systems intended to be used for medical or safety reasons.** The recitals of the AI Act stress that these are AI systems used *strictly* for medical or safety reasons. For example, a system intended for therapeutical use.

Questions related to criterion 5
12. Can you describe an AI system for emotion recognition deployed in the areas of workplace or in education institutions for medical reasons?
13. How can AI systems for emotion recognition be deployed in the areas of workplace or in education institutions for safety reasons? Can you think of any examples?
14. What further questions or clarifications do you have about the scope of this prohibition?

27. **In conclusion, it is stressed that this document does not cover all aspects of the prohibition.** Therefore, interested parties are expressly invited to provide relevant input, also outside the questions asked, for further clarification of prohibition F.

Concluding questions
15. Apart from the questions posed, is there any relevant input that you would like to provide for the further clarification of prohibition F?
16. Do you think it is desirable that we explicitly mention your organisation or group in our public response and appreciation to this call for input, e.g. so that we can discuss examples and considerations that you provide?

Annex: overview of prohibitions from Article 5, paragraph 1 of the AI Act 2024/1689

Prohibition A: Certain manipulative AI systems

AI systems that deploy subliminal techniques beyond a person's consciousness or purposefully manipulative or deceptive techniques, with the objective, or the effect of materially distorting the behaviour of a person or a group of persons by appreciably impairing their ability to make an informed decision, thereby causing them to take a decision that they would not have otherwise taken in a manner that causes or is reasonably likely to cause that person, another person or group of persons significant harm.

Prohibition B: Certain exploitative AI systems

AI systems that exploit any of the vulnerabilities of a natural person or a specific group of persons due to their age, disability or a specific social or economic situation, with the objective, or the effect, of materially distorting the behaviour of that person or a person belonging to that group in a manner that causes or is reasonably likely to cause that person or another person significant harm.

Prohibition C: Certain AI systems for social scoring

AI systems for the evaluation or classification of natural persons or groups of persons over a certain period of time based on their social behaviour or known, inferred or predicted personal or personality characteristics, with the social score leading to either or both of the following:

- detrimental or unfavourable treatment of certain natural persons or groups of persons in social contexts that are unrelated to the contexts in which the data was originally generated or collected;
- detrimental or unfavourable treatment of certain natural persons or groups of persons that is unjustified or disproportionate to their social behaviour or its gravity.

Prohibition D: Certain AI systems for predictive policing

AI systems for making risk assessments of natural persons in order to assess or predict the risk of a natural person committing a criminal offence, based solely on the profiling of a natural person or on assessing their personality traits and characteristics; this prohibition shall not apply to AI systems used to support the human assessment of the involvement of a person in a criminal activity, which is already based on objective and verifiable facts directly linked to a criminal activity.

Prohibition E: Untargeted scraping of facial images

AI systems that create or expand facial recognition databases through the untargeted scraping of facial images from the internet or CCTV footage.

Prohibition F: Certain AI systems for emotion recognition in the workplace or in education

AI systems that infer emotions of a natural person in the areas of workplace and education institutions, except where the use of the AI system is intended to be put in place or into the market for medical or safety reasons.

Prohibition G: Certain AI systems for biometric categorisation of persons

AI systems for biometric categorisation that categorise individually natural persons based on their biometric data to deduce or infer their race, political opinions, trade union membership, religious or philosophical beliefs, sex life or sexual orientation; this prohibition does not cover any labelling or filtering of lawfully acquired biometric datasets, such as images, based on biometric data or categorising of biometric data in the area of law enforcement.

Prohibition H: Certain AI systems for real-time remote biometric identification in publicly accessible spaces for purpose of law enforcement

AI-systems used for of 'real-time' remote biometric identification systems in publicly accessible spaces for the purpose of law enforcement, unless and in so far as such use is strictly necessary for one of the following objectives:

- the targeted search for specific victims of abduction, trafficking in human beings or sexual exploitation of human beings, as well as the search for missing persons;
- the prevention of a specific, substantial and imminent threat to the life or physical safety of natural persons or a genuine and present or genuine and foreseeable threat of a terrorist attack;
- the localisation or identification of a person suspected of having committed a criminal offence, for the purpose of conducting a criminal investigation or prosecution or executing a criminal penalty for offences referred to in Annex II and punishable in the Member State concerned by a custodial sentence or a detention order for a maximum period of at least four years.

Point (h) of the first subparagraph is without prejudice to Article 9 of Regulation (EU) 2016/679 for the processing of biometric data for purposes other than law enforcement.