The European Union Artificial Intelligence Act:

Challenges for Fundamental Rights Protection

Birgit Schippers (University of Strathclyde), Camila Ferreira (Universidade de Coimbra), Paula Veiga (Universidade de Coimbra)

1. Introduction and Background

Artificial Intelligence (AI) has emerged as a disruptive technology with the capacity to transform many aspects of our lives, ranging from health to education, welfare, manufacturing, military uses, and more. However, as AI becomes more integrated into our social and economic activities, concerns regarding its impact on fundamental rights, its risks to health and safety, and fears over a loss of human control and autonomy have become increasingly prominent. Responding to these concerns, domestic and international regulatory initiatives are emerging. These seek to ensure the development and deployment of responsible and trustworthy AI systems. The most significant initiative to date is the European Union's Artificial Intelligence Act (hereinafter 'AI Act', 'the Act' or 'AIA'),[1] which has entered into force on 1 August 2024. Its aim is to provide a comprehensive and legally binding framework for AI development and use. This report surveys and assesses the Act's key fundamental rights provisions, and it identifies gaps and potential implementation challenges with respect to fundamental rights protection. The report will also make recommendations to enhance the fundamental rights-compliance of the Act.

[1] Regulation (EU) 2024/1689 of the European Parliament and of the Council of 13 June 2024 laying down harmonised rules on artificial intelligence and amending Regulations (EC) No 300/2008, (EU) No 167/2013, (EU) No 168/2013, (EU) 2018/858, (EU) 2018/1139 and (EU) 2019/2144 and Directives 2014/90/EU, (EU) 2016/797 and (EU) 2020/1828 (Artificial Intelligence Act).

The development of the AI Act is rooted in the recognition that AI systems pose risks to people's health and safety, and interfere with their fundamental rights, including the rights to privacy and non-discrimination. It has become evident that a legally binding regulation, which goes beyond non-binding commitments to ethics principles or adherence to soft law, is necessary to safeguard against biases, discrimination, privacy infringements, and other potential harms. The Act presents a technologically neutral definition of artificial intelligence as 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'.[2] The Act's purpose, as outlined in Recital 1, is 'to improve the functioning of the internal market by laying down a uniform legal framework' that strikes a balance between fostering the development of a single market for lawful, safe, and trustworthy AI applications while ensuring the protection of fundamental rights and societal values, including democracy and the rule of law.

To deliver on this goal, the AIA adopts a risk-based approach, which categorizes AI systems into four risk levels, ranging from unacceptable, and thus prohibited, risks to high risk, limited risk, and minimal or no risk. Its legally binding provisions delineate obligations and responsibilities for AI developers and users, seeking to foster an AI landscape that provides human-centric and trustworthy AI systems in alignment with human values and interests. As a pivotal milestone in AI regulation, the Act is garnering

[2] Article 3(1).

global attention and fuelling debates on finding the right balance between innovation and safeguards in the AI ecosystem and addressing AI threats to fundamental rights.

2. The AI Act and fundamental rights: key provisions, analysis and critique

The Act's main objective, as articulated in Article 1(1), is to improve the functioning of the EU's internal market, promote the uptake of human-centric and trustworthy AI, and ensure a high level of protection of health, safety, and fundamental rights. Concerns over AI's impact on fundamental rights feature prominently in the (non-binding) recitals and in the articles. These concerns build on the *Ethics Guidelines for Trustworthy AI*, published by the European Commission's Independent High Level Expert Group,[3] and on the EU Commission's *White Paper: On Artificial Intelligence – A European approach to excellence and trust*.[4] The Act promotes alignment with EU values of 'respect for human dignity, freedom, equality, democracy and the rule of law and fundamental rights'.[5] This focus on Union values, which also includes due regard for health, safety, and environmental protection, is anchored in the EU's Charter of Fundamental Rights,[6] in the provisions of the General Data Protection Regulation,[7] and in associated rights provisions in the Treaty of the European Union (hereinafter 'TEU'),

[3] Independent High-Level Expert Group on Artificial Intelligence 'Ethics Guidelines for Trustworthy AI' 8 April 2019, available at https://digital-strategy.ec.europa.eu/en/library/ethics-guidelines-trustworthy-ai.
[4] European Commission *White Paper: On Artificial Intelligence – A European approach to excellence and trust* COM 2020 65(final) 19 February 2020, available at https://commission.europa.eu/system/files/2020-02/commission-white-paper-artificial-intelligence-feb2020_en.pdf.
[5] Recital 28.
[6] Charter of Fundamental Rights of the European Union (2000/C 364/01) 18 December 2000, available at https://www.europarl.europa.eu/charter/pdf/text_en.pdf.
[7] Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data, and repealing Directive 95/46/EC (General Data Protection Regulation).

especially Articles 2, 3, 6 and 21.[8] A further feature of the AI Act is its direct horizontal effect, which will impose rights obligations not just on States or an emanation of a state, but also on non-state actors, including private companies.

Even though the Act has not been designed as a bespoke fundamental rights instrument, it acknowledges concerns about AI's impact on fundamental rights at various stage of the AI lifecycle, from design and development to the placing of AI systems on the market. To operationalise these concerns, the Act introduces a series of regulatory governance techniques. These include an obligation to conduct fundamental rights impact assessments for high-risk AI systems,[9] which apply for AI deployers governed by public law or private entities providing public services (Article 27); transparency obligations (Article 50); and the reporting of serious incidents (Article 73). The Act also stipulates the voluntary application of codes of conduct, including adherence to EU guidelines on ethical AI (Article 95(2)(a)); facilitating inclusive and diverse AI design through inclusive and diverse development teams and stakeholder participation (Article 95(2)(d)); assessing and preventing the negative impact of AI on vulnerable groups and on gender equality (Article 95(2)(e); and establishing an advisory forum to the AI Board with civil society representation (Article 67(2)).

However, as already intimated, the Act's provisions for rights protection are part of a broader mission, which seeks to harmonise the legal regulation of AI across the EU, and to foster innovation aimed at establishing the EU as a 'global leader in the development

[8] Consolidated Version of the Treaty on European Union C 326/13, 26 October 20212, available at https://eur-lex.europa.eu/resource.html?uri=cellar:2bf140bf-a3f8-4ab2-b506-fd71826e6da6.0023.02/DOC_1&format=PDF. See also UN Convention on the Rights of the Child and UNCRC General Comment No. 25 as regards the digital environment.
[9] For a classification of high-risk AI-systems see Article 6(1) and Annex III.

of secure, trustworthy and ethical AI'.[10] This key fault-line, between fundamental rights protection on the one hand, and the desire to harness the capabilities of technological innovations in the field of artificial intelligence on the other, can be illustrated with respect to the controversies over the use of biometric technologies such as facial recognition technology. Human rights and civil liberties organisations have expressed significant concerns over the intrusive surveillance capacities of a technology with a patchy accuracy record and with the potential to interfere with a series of fundamental rights, including the right to privacy, and the right to freedom of assembly and expression.[11] Similar concerns over the surveillance capabilities of AI-propelled systems have also been raised by the European Data Protection Board (EDPB) and European Data Protection Supervisor (EDPS) in their Joint Opinion on the Draft AI Act,[12] and by the United Nations High Commissioner for Human Rights.[13] In the wake of the European Parliament's call for a total ban on the use of real-time, remote biometric identification systems in publicly accessible spaces, a limited ban on retrospective FRT, and a ban on biometric categorisation,[14] there were hopes that these bans would find their way into the final version of the AIA.

---

[10] Recital 8.
[11] See, e.g., Liberty 'Facial Recognition', available at https://www.libertyhumanrights.org.uk/fundamental/facial-recognition/; Big Brother Watch 'Stop Facial Recognition', available at https://bigbrotherwatch.org.uk/campaigns/stop-facial-recognition/.
[12] European Data Protection Board and European Data Protection Supervisor, *Joint Opinion 5/2021 on the proposal for a Regulation of the European Parliament and of the Council laying down harmonised rules on artificial intelligence (Artificial Intelligence Act)* (2021); United Nations High Commissioner for Human Rights (UNHCHR) *Impact of new technologies on the promotion and protection of human rights in the context of assemblies, including peaceful protests* (A/HRC/44/24, 2020) p 4, available at https://documents-dds-ny.un.org/doc/UNDOC/GEN/G20/154/35/PDF/G2015435.pdf?OpenElement.
[13] United Nations High Commissioner for Human Rights (UNHCHR) above n 12.
[14] European Parliament, Artificial Intelligence Act. Amendments adopted by the European Parliament on 14 June 2023 on the proposal for a regulation of the European Parliament and of the Council on laying down harmonised rules on artificial intelligence (Artificial Intelligence Act) and amending certain Union legislative acts (COM(2021)0206 – C9-0146/2021 – 2021/0106(COD))

In its final, agreed version, the AI Act acknowledges the 'particularly intrusive' nature of real-time remote biometric identification in law enforcement, and recognizes that its impact on 'the private life of a large part of the population, evoke[s] a feeling of constant surveillance and indirectly dissuade[s] the exercise of the freedom of assembly and other fundamental rights' (Recital 32). However, its provisions for the regulation of biometric technologies reveal a significant gap between the normative commitments to protect fundamental rights, and the exemptions and regulatory loopholes in the legally binding provisions of the Act. This gap between normative commitments and regulatory exemptions and loopholes could become a significant challenge at the implementation stage.

3. Challenges: Adoption and implementation

Although it is too early to assess the AIA's effectiveness with respect to AI regulation and the protection of fundamental rights, we can already identify several key challenges. These relate to the above-mentioned loopholes and wide-ranging exemptions, and to the monitoring and enforcement of the Act's provisions, further compounded by the significant regulatory roles accorded to private actors. It remains to be seen how the Act will be interpreted by the Court of Justice of the European Union, specifically how the Court will interpret the Act's standing in the EU's hierarchy of norms, and what this will mean for the protection of fundamental rights.

Additional challenges stem from new technological developments, for example advances in Large Language Models (LLMs) such as ChatGPT. These have cast doubt on the ability of any legislative act to keep up with the fast pace of technological

change. The pace of technological advances have also triggered public debates over AI's existential threats to humankind and to the planet, leading to calls for a moratorium on AI development, as expressed in a letter signed by leading AI researchers and developers.[15] In contrast to these technology-centred, existential concerns, non-governmental organisations (NGOs) campaigning for digital human rights have highlighted the need for strong and effective regulation of AI developers and users. Although supportive of the EU's commitment to introduce statutory regulation of AI, NGOs call for extended protections with respect to AI-propelled surveillance systems, including a full ban on biometric identification and categorisation systems without exception, and an enhanced framework for accountability, transparency, accessibility, and redress for affected communities.[16]

4. Similar initiatives elsewhere

The extraterritorial scope of the AI Act, combined with the EU's 'first-mover advantage' and its reputation for setting regulatory gold-standards, has the potential to shape AI regulation outwith the jurisdictions of EU member state. Influenced by developments within the EU, but also guided by a growing recognition of the urgency of AI regulation, regulatory initiatives elsewhere are also emerging. Noteworthy from a human rights perspective is the Council of Europe's initiative on AI and its efforts to develop a legally binding *Framework Convention on Artificial Intelligence, Human*

[15] Future of Life Institute 'Pause Giant AI Experiments: An Open Letter' 22 March 2023, available at https://futureoflife.org/open-letter/pause-giant-ai-experiments/

[16] European Digital Rights, *EU Trilogues: The AI Act must protect people's rights. A civil society statement on fundamental rights in the EU Artificial Intelligence Act*, 12 July 2023, available at https://edri.org/wp-content/uploads/2023/07/Civil-society-AI-Act-trilogues-statement.pdf

Rights and the Rule of Law.[17] The Framework Convention seeks to align with the Council of Europe's leading human rights instrument, the European Convention on Human Rights, with the recently Modernised Convention on Data Protection,[18] and with the growing jurisprudence of the European Court of Human Rights in the area of new technologies and cross-cutting fields such as data protection and surveillance.[19]

The Council of Europe, alongside other international organisations such as UNESCO and the OECD, has also issued soft law guidelines and recommendations, frequently couched in the language of ethics, but lacking justiciability.[20] How best to regulate AI, AI developers and AI users, and how to protect those subjected to AI systems from rights violations, remains a contested issue. Opting for regulation at domestic level, the US is currently advancing a self-regulatory model, whilst Canada and China are making strides towards developing legally binding domestic regulation.[21] At the time of writing, a global regulatory instrument with a distinctive focus on human rights protection remains elusive.

---

[17] Council of Europe *Framework Convention on Artificial Intelligence and Human Rights, Democracy and the Rule of Law*, Council of Europe Treaty Series No. 225, available at https://rm.coe.int/1680afae3c.
[18] Council of Europe*, Convention 108+: Convention for the protection of individuals with regard to the processing of personal data*, June 2018, available at https://rm.coe.int/convention-108-convention-for-the-protection-of-individuals-with-regar/16808b36f1
[19] European Court of Human Rights, *Factsheet – New technologies*, September 2022, available at https://www.echr.coe.int/documents/d/echr/FS_New_technologies_ENG
[20] UNESCO, Recommendations on the Ethics of Artificial Intelligence, 23 November 2021, available at https://unesdoc.unesco.org/ark:/48223/pf0000381137; OECD, Recommendation of the Council on Artificial Intelligence, OECD/LEGAL/0449, 2022, file:///C:/Users/rqb22111/Downloads/OECD-LEGAL-0449-en.pdf
[21] M Lévesque 'Canadian AI Regulation Should Deliver on Freedom of Thought Protecting: freedom of thought requires more than pointers in a non-binding document' Center for International Governance Regulation (CIGI), 13 July 2023, available at https://www.cigionline.org/articles/canadian-ai-regulation-should-deliver-on-freedom-of-thought/; L He 'China takes major step in regulating generative AI services like ChatGPT' *CNN Business*, 14 July 2023, available at https://edition.cnn.com/2023/07/14/tech/china-ai-regulation-intl-hnk/index.html

5. Recommendations

Significant criticism of the AI Act in its draft and final forms, and a comprehensive set of recommendations for AI regulation, have already been made elsewhere.[22] This report prioritises five recommendations, which aim to strengthen the provisions for fundamental rights protection in the regulation of AI:

First, provisions for fundamental rights protection should adhere to best practice in international human rights law, and align with international human rights frameworks.

Second, AI regulation should prioritise fundamental rights protection across the lifecycle of AI systems. This should include ex ante rights, democracy and community impact assessments; the protection of fundamental rights across the spectrum of individual and collective rights; and the protection of societal values such as democracy and the rule of law.

Third, given the pace of technological research and development, and considering the multiple usages of AI systems, the AI Act should provide regular updates of its list of restricted and high-risk systems. AI research should adhere to best practice in international human rights law.

Fourth, the legally binding regulation of AI systems, and effective and comprehensive fundamental rights protection should extend to domains such as defence and national security.

[22] See, e.g., L Edwards, *Regulating AI in Europe: four problems and four solutions* (Ada Lovelace Institute 2022); NA Smuha and K Yeung 'The European Union's AI Act: beyond motherhood and apple pie', forthcoming in NA Smuha (ed.) The *Cambridge Handbook on Law, Ethics and Policy of Artificial Intelligence* (CUP, 2024).

Fifth, the independence of national supervisory authorities must be guaranteed, supported by an effective and well-resourced enforcement framework.

The AI Act offers the possibility to create an architecture for the regulation of artificial intelligence system anchored in best practice in international human rights law. Its key objective must be to protect, respect, and promote fundamental rights, making AI systems secure, beneficial, and rights-compliant for all.