

Al Policy: the EU approach and implications for education and academia

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AI: a powerful technology that needs to be regulated

Al is good ...

- For citizens
- For business
- For the public interest



... but it creates some risks

- For the safety of consumers and users
- For fundamental rights



EU strategy on AI – since 2018



An ecosystem of excellence and trust

- A European legal framework for AI that upholds fundamental rights and addresses safety risks specific to the AI systems
- A civil liability framework adapting liability rules to the digital age and AI
- A revision of sectoral safety legislation (e.g. Machinery Regulation, General Product Safety Directive)





The EU Artificial Intelligence Act



AI Act: foundations

- Product safety and risk-based approach
- Protection of health, safety and fundamental rights
- A horizontal act
- Coherence and complementarity with existing legislation
- Innovation friendly

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 Will apply to public and private actors, inside and outside the EU (as long as the AI system is placed on the Union market or its use affects people located in the EU), providers and deployers



The AI Act follows a risk-based approach





A very limited set of particularly harmful AI uses are banned

Unacceptable risk

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Subliminal techniques or exploitation of vulnerabilitie	s to manipulate people
Social Scoring	for public and private purposes
Biometric categorisation	to deduce or infer for example race, political opinions, religious or philosophical beliefs or sexual orientation, exceptions for labelling in the area of law enforcement
Real-time remote biometric identification	for the purpose of law enforcement, -with narrow exceptions and with prior authorisation by a judicial or independent administrative authority
Individual predictive policing	assessing or predicting the risks of a natural person to commit a criminal offence based solely on this profiling without objective facts
Emotion recognition	in the workplace and education institutions, unless for medical or safety reasons
Untargeted scraping of the internet	or CCTV for facial images to build-up or expand databases
ALS Norma	Europear Commise



High-risk AI systems will have to comply with certain rules

High-risk use cases defined in Annexes II (embedded AI) and III:

Some examples from Annex III are related to

- **Certain critical infrastructures** such as road traffic, supply of water, gas, heating and electricity
- Education and vocational training, e.g. to evaluate learning outcomes
- **Employment, workers management**, e.g. to analyse job applications or evaluate candidates
- Access to essential private and public services and benefits, credit scoring
- Remote biometric identification, categorization, emotion recognition; Law enforcement; border management; administration of justice and democratic processes

Obligations for providers of high-risk Al systems:

- **Trustworthy AI requirements** such as data quality, documentation and traceability, transparency, human oversight, accuracy, cybersecurity and robustness
- **Conformity assessment** before placing the AI system on the market, to demonstrate compliance
- Quality and risk management systems to minimise risks for users and affected persons and to ensure compliance
- Registration in an EU database

This will be subject to **enforcement** to ensure that the high risk is effectively addressed.



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The impact on fundamental rights must be assessed

The use of a high-risk AI system may produce an impact on fundamental rights. This deserves a **fundamental rights impact assessment** for most Annex III systems.

Consisting of an assessment of

Deployers processes, in which the high-risk AI system is intended to be used

Categories of natural persons and groups likely to be affected by its use in the specific context

Specific risks of harm likely to impact the affected categories of persons or group of persons

- Description of human oversight measures
- Measures to be taken in case of materialization of the risks



Carried out by

Deployers that are

- 1. Bodies governed by **public** law
- 2. Private operators providing **public services**
- Certain other private providers (credit scoring/ credit worthiness assessment of health and life insurances)



The most recent advancements in AI are addressed

So-called **'general-purpose Al models'** * pose unique challenges

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- General-purpose AI (GPAI) models can be used for a variety of tasks and are **becoming the basis for many AI systems in the EU**.
- Some of these models could carry systemic risks if they are very capable or widely used.
- For example, many individuals could be affected if a model propagates harmful biases across many applications.

General-purpose AI models are becoming too important for the economy and society not to be regulated.

*General-purpose AI model = AI model, including when trained with a large amount of data using self-supervision at scale, that displays significant generality and is capable to competently perform a wide range of distinct tasks regardless of the way the model is released on the market and that can be integrated into a variety of downstream systems or applications. *Research, development, and prototyping activities preceding the release on the market are not covered.*



Proportionate rules for GPAI models

Enabling downstream system providers to comply with the AI Act

All necessary information for providers wishing to build upon a GPAI model

Addressing systemic risks of a few GPAI models

Strict rules and oversight for very capable (at least 10^25 FLOPs*) or individually designated GPAI



* The AI Office may update this threshold in light of technological advances, and may in specific cases designate other models as such based on further criteria (e.g. number of users, or the degree of autonomy of the model)

Light-touch transparency obligations for all GPAI models

Documentation and information to downstream providers for instance through **model cards**, facilitated enforcement of **copyright rules**, info on **energy consumption**

Open-source models are exempted from transparency requirements, when they do not carry systemic risks.

Additional obligations for "GPAI models with systemic risk"

Managing risks and monitoring serious incidents, performing model evaluation and adversarial testing, cybersecurity

Operationalised through Codes of Practice developed by industry, the scientific community civil society and other experts, together with the AI Office



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Rules for AI systems which are not high risk

Transparency obligations for certain AI systems

- Notify humans that they are interacting with an Al system unless this is evident.
- Ensure that synthetic audio, image, video or text content generated by an AI system is marked in a machine-readable format and detectable as artificially generated.
- Label text as artificially generated if it is published with the purpose of informing the public on matters of public interest.
- Apply label to deep fakes generated by AI (unless necessary for the exercise of a fundamental right or freedom or for reasons of public interests).
- Notify humans that emotion recognition or biometric categorisation systems are applied to them.

Possible voluntary codes of conduct for AI with specific transparency requirements

No mandatory obligations



A holistic structure ensures effective enforcement

Enforcement by national competent authorities and the AI Office with a supportive structure for close collaboration with Member States and for additional technical expertise

National competent authorities

- Supervising the application and implementation regarding high-risk conformity
- Carrying out market surveillance, EDPS for Union entities

European Al Office

to be established within the Commission

- Developing Union expertise and capabilities in the field of artificial intelligence, implementation body
- Enforcing and supervising the new rules for GPAI models, incl. evaluations, requesting measures

European Artificial Intelligence Board

 High-level representatives of each MS, advising and assisting the Commission and MS

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Advisory Forum

- Balanced selection of stakeholders, incl. industry, SMEs, civil society, academia
- Advising and providing technical expertise

Scientific Panel

- Pool of independent experts
- Supporting the implementation and enforcement as regards GPAI models and high-risk AI systems, with access by Member States

The AI Act enters into application in a gradual approach





*Following its adoption by the European Parliament and the Council, the AI Act shall enter into force on the twentieth day following that of its publication in the official Journal.





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Multilateral cooperation plays an important role in the European approach to Artificial Intelligence



International multilateral activities





Thank you

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