

German and EU Authorities Present First Ideas on the Regulation of Artificial Intelligence

18 April 2019

On April 4, 2019 the Conference of German Data Protection Commissioners, a body formed by German data protection supervisory authorities, put forward seven propositions on a data protection compliant use of artificial intelligence (“AI”).¹ Separately, on April 8, 2019, the European Commission shared its view on the essential requirements for ethical use of the AI.²



GERMAN DATA PROTECTION COMMISSIONERS' VIEW ON AI

The German Data Protection Commissioners emphasize that the General Data Protection Regulation (“GDPR”) and its principles are designed to serve the protection of fundamental rights and fundamental freedoms of individuals and also apply to the use of AI. Accordingly, the GDPR would require that the design of the applied technology incorporates technical and organizational measures for the protection of personal data (data protection by design).

AI must not turn humans into objects. The dignity of the human being, as guaranteed by the German constitution and the EU Charter of Fundamental Rights, requires that an individual be not reduced to an object. As a consequence, automated decision-making or profiling is permitted only to a limited extent, e.g., decisions with legal effect may not be left solely to a machine. An individual affected by an automated decision by an AI algorithm will retain the right to seek and obtain an intervention by a human, present his or her case, and challenge the decision.

AI may only be used for constitutionally legitimate purposes and may not contravene the principle of purpose limitation. The GDPR principle of purpose limitation prohibits a further use of personal data that is incompatible with the initial purpose, unless the use is based on the consent of the data subject or an exception. Compliance with this principle is of particular importance in the context of AI, as the

¹ Hambacher Erklärung zur Künstlichen Intelligenz (*Hambacher Statement on Artificial Intelligence*), available at https://www.datenschutzkonferenz-online.de/media/en/20190405_hambacher_erklaerung.pdf.

² The European Commission’s press release is available at http://europa.eu/rapid/press-release_IP-19-1893_en.htm.

development or training of AI relies on the re-use of data collected for a different purpose.

AI must be transparent, comprehensible and explainable. Personal data must be processed in a manner transparent and comprehensible to the data subject. Thus, information on the applied algorithmic processes and on the data used for training of the AI has to be easily accessible and comprehensible. An output from an automated decision-making must be comprehensible and explainable, including the decision-making process. The GDPR accountability principle further requires that any party using an AI system must be able to demonstrate data protection compliance of the AI system.

AI must avoid discrimination. AI as a learning system highly depends on the data input. An inadequate data input or algorithm itself may have a discriminatory effect. Discrimination violates GDPR principles such as fair processing, the linking of the processing to legitimate purposes or the adequacy of the processing. An impact assessment prior to the use of AI and ongoing monitoring, among other things, are necessary to ensure that AI has no discriminatory effect.

AI is subject to the principle of data minimization. AI systems typically use large amounts of data that may include personal data. The GDPR principle of data minimization limits the use of personal data to what is necessary in relation to the processing purposes. If the purpose of the processing through AI can be achieved with anonymized data, the use of non-anonymized personal data is prohibited.

AI needs responsibility. The parties involved in the use of an AI system shall identify and communicate to the data subject their responsibility and take all necessary measures to ensure the lawful processing, the safeguarding of data subject's rights, the controllability of the AI system and the security of processing, including the prevention of manipulations by third parties. As AI is likely to result in a high risk for the rights of data subjects, a data protection impact assessment may be required prior to the use of the technology. Such assessment needs to, among others, consider the necessity and the proportionality of the contemplated processing.

AI requires technical and organizational standards. Appropriate technical and organizational measures, such as pseudonymization, must be taken into account for the design and use of AI systems. As of today, there are no specific standards or detailed requirements for such measures, but the German Data Protection Commissioners expect business and science to develop best practices. The German Data Protection Commissioners are committed to actively participate in this process.

EUROPEAN COMMISSION'S ESSENTIALS FOR AI

On April 8, 2019, the High-Level Expert Group on Artificial Intelligence, a group of 52 experts from academia, civil society and industry appointed by the European Commission in 2018, delivered the “Ethics Guidelines for Trustworthy AI”, designed to promote trustworthy AI and to provide recommendations for future policy development on ethical, legal and societal issues related to AI.

According to the guidelines, trustworthy AI should respect all applicable laws and regulations, ethical principles and values and be robust, from a technical perspective and taking into account its social environment.

The guidelines focus on the ethical principles and values and identify four ethical imperatives that should form the foundation for trustworthy AI and must be respected in the development, deployment and use of AI. These are the principles of:

- **Respect for human autonomy:** AI systems must leave meaningful opportunity for human choice in order to secure human oversight over work processes of the AI systems. The AI systems should not subordinate or manipulate humans, but rather be designed to complement and empower human skills.
- **Prevention of harm:** AI systems should neither cause nor exacerbate harm or otherwise adversely affect human beings.
- **Fairness:** Development, deployment and use of AI systems should be fair, both in a substantial and a procedural dimension.
- **Explicability:** The capabilities and purpose of AI systems must be openly communicated, and their decisions must be explainable to those directly and indirectly affected.

Based on these four ethical principles, the European Commission formulates seven essential requirements for AI:

Human agency and oversight. AI systems should enable equitable societies by supporting human agency and fundamental rights, and not decrease, limit or misguide human autonomy. This may require proper oversight mechanisms, including through human-in-the-loop, human-on-the-loop, and human-in-command approaches.

Technical robustness and safety. In order to minimize and prevent unintentional harm, AI systems and algorithms must be resilient, secure and reproducible. This may

require procedures designed to deal with errors and inconsistencies during all life cycle phases of AI systems.

Privacy and data governance. In line with the principles of the GDPR, EU citizens should be enabled to retain full control over their data. It must also be ensured that their data will not be used to harm or discriminate against them. This will require adequate data governance mechanisms, taking into account the quality and integrity of the data, and ensuring legitimized access to data.

Transparency. Traceability mechanisms should be implemented in order for the used data, systems and AI business models to be transparent. Moreover, AI systems and their decisions should be explained in a manner adapted to the stakeholder concerned. Humans need to be aware that they are interacting with an AI system and must be informed of the system's capabilities and limitations.

Diversity, non-discrimination and fairness. AI systems should consider the whole range of human abilities, skills and requirements, and ensure accessibility. Unfair bias must be avoided as it could have multiple negative implications, from the marginalization of vulnerable groups to the exacerbation of prejudice and discrimination. Fostering diversity, AI systems should be accessible to all, regardless of any disability, and involve relevant stakeholders throughout their entire life circle.

Societal and environmental well-being. AI systems should benefit all human beings, including future generations. It must hence be ensured that they enhance sustainability and ecological responsibility.

Accountability. Mechanisms should be put in place to ensure responsibility and accountability for AI systems and their outcomes and to enable the assessment of algorithms, data and design processes.

Finally, the guidelines provide for a pilot version of a non-exhaustive assessment list designed to operationalize the key requirements set out above. The assessment list formulates concerns raised by AI systems that should be considered while developing and deploying AI in order to comply with these seven requirements. Based on the feedback received during the piloting phase, the European Commission intends to issue an updated version of the list by early 2020.

OUTLOOK

The essentials formulated by the European Commission remain relatively vague and require further refining. One key take away from European Commission's essentials is that the AI community needs to prepare for further regulations to follow that will set a more specific framework for AI development and use in Europe.

The statement of the German Data Protection Commissioners is a good indicator of the data protection requirements that AI will face not only in Germany, but also in the rest of Europe. In particular, the requirements on transparency and human intervention may pose considerable challenges for AI adoption. In any case, developers of AI should take into consideration the GDPR requirements at an early stage and ensure GDPR compliant risk assessment and privacy notices.

* * *

Please do not hesitate to contact us with any questions.

FRANKFURT

Dr. Thomas Schürrie
tschuerrle@debevoise.com



Klaudius Heda
kheda@debevoise.com



Dr. Oliver Krauß
okrauss@debevoise.com

NEW YORK

Dr. Friedrich Popp
fpopp@debevoise.com



Byungkwon Lim
blim@debevoise.com