OPINION

of the Committee on Civil Liberties, Justice and Home Affairs

for the Committee on Industry, Research and Energy

on a comprehensive European industrial policy on artificial intelligence and robotics
(2018/2088(INI))

Rapporteur (*): Michal Boni

(*) Associated committee – Rule 54 of the Rules of Procedure
SUGGESTIONS

The Committee on Civil Liberties, Justice and Home Affairs calls on the Committee on Industry, Research and Energy, as the committee responsible, to incorporate the following suggestions into its motion for a resolution:

– having regard to the communication from the Commission to the European Parliament, the European Council, the Council, the European Economic and Social Committee and the Committee of the Regions on Artificial Intelligence for Europe (COM(2018)0237),

– having regard to its resolution of 16 February 2017 with recommendations to the Commission on Civil Law Rules on Robotics¹,

A. whereas artificial intelligence (AI) is one of the strategic technologies for the 21st century, both globally and in Europe, bringing positive change for the European economy and enabling innovation, productivity, competitiveness and wellbeing;

B. whereas the European framework for AI must be developed on a basis of full respect for fundamental rights as enshrined in the Charter of Fundamental Rights of the European Union, and in particular for the principles of data protection, privacy and security;

C. whereas human-centric AI and machine learning constitute an advantage for European society and can help address some of the most pressing societal challenges with tangible benefits for citizens;

1. Calls on the Commission and other competent institutions to collaborate closely with researchers representing different disciplines in order to identify, support and leverage the potential positive effects of innovative uses of AI, to investigate, prevent, and mitigate potential harmful effects of malicious or negligent uses of AI, and to develop tools, policies, and norms appropriate to ensure the ethical governance of AI applications; stresses the need to develop knowledge exchange programmes, including cross-border programmes, and to facilitate joint strategy development between civil society organisations; notes that best practices should be identified in research areas with more mature methods for addressing dual-use concerns, such as security and privacy, and that they should be applied to the area of AI;

2. Highlights the fact that malicious or negligent use of AI could threaten digital security and physical as well as public safety, as it could be used to conduct large-scale, finely-targeted and highly efficient attacks on information society services and connected machinery, as well as disinformation campaigns, and generally diminish the right of individuals to self-determination; stresses that the malicious or negligent use of AI might also pose risks to democracy and fundamental rights;

3. Emphasises that the right to respect for private life and the protection of personal data, as enshrined in Articles 7 and 8 of the Charter of Fundamental Rights and Article 16 of the Treaty on the Functioning of the European Union (TFEU), apply to all areas of robotics and to all the other areas in which AI may be used, including big data analytics, machine learning and the Internet of Things, and that the Union’s legal framework for

data protection must be fully complied with in the area of AI systems; reiterates its support for the Commission’s ‘FinTech Action plan: For a more competitive and innovative European financial sector’, which highlights the role that regulation can play in facilitating technological innovation and better understanding of innovative business models and market developments, by allowing regulators to supervise firms under the Union’s legal framework;

4. Calls on the Commission to ensure that any future EU regulatory framework on AI guarantees the privacy and confidentiality of communications, personal data protection, including the principles of lawfulness, fairness and transparency, data protection by design and default, purpose limitation, storage limitation, accuracy and data minimisation, in full compliance with Union data protection law, as well as security, personal safety and other fundamental rights, including the right to freedom of expression and information; considers that any future regulatory framework should be assessed by the Commission on a regular basis, taking account of new technological developments;

5. Stresses that European standards for AI must be based on the principles of digital ethics, human dignity, respect for fundamental rights, data protection and security, aiming at incorporating these principles by design and thus contributing to building trust among users; emphasises the importance of capitalising on the EU’s potential for creating a strong infrastructure for AI systems rooted in high standards of data protection and respect for humans; stresses the need to systematically invest in developing the future expertise needed, particularly in training researchers and facilitating knowledge sharing between various disciplines - including applied ethics - specialising in AI technology, robotics, and related fields;

6. Calls on the Commission to take a strong stance against the development and use of autonomous weapon systems powered by AI within any EU framework;

7. Welcomes the Commission’s initiative to establish the European AI Alliance, to be tasked with developing comprehensive AI ethical guidelines and policy recommendations; highlights the importance of active participation in global alliances and AI fora to enable knowledge sharing and a comprehensive understanding of concerns relating to data privacy, transparency and security in developing and deploying AI systems; welcomes, in this regard, the work of the High-Level Expert Group of Artificial Intelligence (AI HLEG), which serves as the steering group for the work of the AI Alliance; calls on the Commission to ensure participation of data protection authorities in this high-level group, to complete the work in an open and transparent manner and to publish the guidelines; moreover, invites the Commission to continue working towards an EU-wide approach on AI which will be human-centric and human-governed, and to actively promote high EU standards in the field of AI at international level;

8. Underlines that any AI system must be developed with respect for the principles of transparency and for algorithmic accountability allowing for human understanding of its actions; notes that in order to build trust in and enable the progress of AI, users must be aware of how their data, as well as other data and data inferred from their data, is used and must know when they are communicating or interacting with an AI system or with
humans supported by an AI system; believes that this will contribute to better understanding and confidence among users; stresses that the intelligibility of decisions must be an EU standard in accordance with Articles 13, 14 and 15 of the GDPR; recalls that the GDPR already foresees a right to be informed about the logic involved in data processing; stresses that, according to Article 22 of the GDPR, individuals have the right to obtain human intervention when a decision based on automated processing significantly affects them;

9. Highlights that the Commission, the European Data Protection Board, national data protection authorities and other independent supervisory authorities should henceforth play a crucial role in the promotion of transparency and due process, legal certainty in general and, more specifically, of concrete standards protecting fundamental rights and guarantees associated with the use of data processing and analytics; calls for closer collaboration among the authorities charged with overseeing or regulating conduct in the digital environment; calls for adequate funding and staffing of such authorities;

10. Highlights the importance of tackling developer bias, and thus of the need for a diverse workforce in all branches of the IT sector, as well as safeguard mechanisms to avoid biases based on gender and age being embedded into AI systems;

11. Highlights the importance of establishing a regulatory framework to control algorithms and their impact, including, therefore, the possibility of engaging independent auditors for algorithms (or even software watchdogs, or a regulator that can investigate AI automated decisions;

12. Stresses the importance of the quality and accuracy, as well as the representative nature of data used in the development and deployment of algorithms, as their standard relies on the data used to train them; points out that even high-quality training data can lead to the perpetuation of existing discrimination and injustice when not used carefully and consciously; notes that the use of low-quality, outdated, incomplete or incorrect data at different stages of data processing may lead to poor predictions and assessments and in turn to bias, which can eventually result in infringements of the fundamental rights of individuals or purely incorrect conclusions or false outcomes; believes, therefore, that it is important in the age of big data to ensure that algorithms are trained on representative samples of high-quality data in order to achieve statistical parity; emphasises that even if accurate high-quality data is used, predictive analysis based on AI can only offer a statistical probability; recalls that under the GDPR, the further processing of personal data for statistical purposes, including AI training, may only result in aggregate data which cannot be reapplied to individuals;

13. Calls on the Commission, the Member States and the data protection authorities to identify and take all possible measures to prevent or minimise algorithmic discrimination and bias and to develop a strong common ethical framework for the transparent processing of personal data and automated decision-making, to guide data usage and the enforcement of Union law;

14. Stresses that, while encouraging progress for the benefit of society and the environment, AI research and other related activities should be conducted in accordance with the precautionary principle and fundamental rights; stresses that everyone involved in the development, implementation, dissemination and use of AI should consider and respect
human dignity as well as the self-determination and wellbeing - both physical and psychological - of the individual and society at large, anticipate potential safety impacts, and take due precautions proportionate to the level of protection, including the prompt disclosure of factors that might endanger the public or the environment; underlines the need for a coordinated approach to ensure that risk-based evaluations are carried out frequently for AI systems and their components; highlights the importance of designing and enforcing a comprehensive set of auditing rules and guidelines for the development and deployment of AI systems, as well as safety and flagging mechanisms aimed at mitigating their infringement risks;

15. Underlines that the following principles should be applied for overall strategies on AI and robotics:

a) Robots and artificial intelligence are multi-use tools. Robots and artificial intelligence should not be designed solely or primarily to kill or harm humans. Individual rights and fundamental freedoms must be guaranteed, in particular human integrity (physical and mental), human dignity and identity. The primacy of the human being over the sole interest of science or society is underlined;

b) Humans are responsible agents. Lawmakers should make sure that emerging technologies comply with existing laws and fundamental rights;

c) Robots and artificial intelligence are products that should be designed to be safe, secure and fit for purpose, in the same way as other products;

d) Robots and artificial intelligence are manufactured artefacts. They should not be designed in a deceptive way to exploit vulnerable users; instead, their machine nature should be transparent;

e) A person having legal responsibility for a robot or artificial intelligence system should be designated. In the event of gross negligence regarding safety and security, manufacturers should be held responsible even where user agreements include non-liability clauses;

16. Emphasises the need to include the public in the AI development process; calls on the Commission, therefore, to publish any algorithms, tools and technology funded or co-funded by the public as open source;

17. Highlights that where risks arise as an unavoidable and integral element of AI research, robust risk assessment and management protocols shall be developed and complied with, taking into account that the risk of harm shall be no greater than that encountered in ordinary life (i.e. people shall not be exposed to risks greater than or additional to those to which they are exposed in their normal lifestyles).
**INFORMATION ON ADOPTION IN COMMITTEE ASKED FOR OPINION**

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**Members present for the final vote**
Martina Anderson, Monika Beňová, Michal Boni, Cornelia Ernst, Romeo Franz, Nathalie Griesbeck, Jussi Halla-aho, Monika Hohlmeier, Sophia in 't Veld, Dietmar Köster, Juan Fernando López Aguilar, Roberta Metsola, Claude Moraes, Péter Niedermüller, Ivari Padar, Giancarlo Scottà, Birgit Sippel, Csaba Sógor, Helga Stevens, Bodil Valero, Harald Vilimsky, Josef Weidenholzer

**Substitutes present for the final vote**
Marek Jurek, Jean Lambert, Angelika Mlinar, Maite Pagazautundúa Ruiz, Barbara Spinelli, Axel Voss

**Substitutes under Rule 200(2) present for the final vote**
Lucy Anderson, Margrete Auken, Anthea McIntyre
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Key to symbols:
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- : against
0 : abstention