European Parliament
2014-2019

Committee on Civil Liberties, Justice and Home Affairs

2015/2103(INL)

23.11.2016

OPINION

of the Committee on Civil Liberties, Justice and Home Affairs

for the Committee on Legal Affairs

with recommendations to the Commission on Civil Law Rules on Robotics
(2015/2103(INL))

Rapporteur: Michał Boni

(Initiative – Rule 46 of the Rules of Procedure)

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

SUGGESTIONS

The Committee on Civil Liberties, Justice and Home Affairs calls on the Committee on Legal Affairs, as the committee responsible:

– to incorporate the following suggestions into its motion for a resolution:

A. Whereas the technological advancements in the area of robotics will bring positive effects for the Union economy and also for the daily life of individuals, but might also imply risks which need to be addressed; whereas the development of all new technological and production paradigms, within or outside of the framework of Horizon 2020, must respect ethical principles and have due regard to the fundamental rights enshrined in the Charter of Fundamental Rights (CFR);

B. Whereas a number of third countries have adopted guidelines and legislation on robotics and some Member States have launched specific reflections in this area; whereas a regulatory framework that governs at Union level the development and the use of robotics and artificial intelligence and builds on existing rules such as the Union's General Data Protection Regulation[1] could prevent a fragmentation of rules in the single market and further safeguard the protection of the fundamental rights of all EU citizens to human dignity, privacy and family life, the protection of personal data and intellectual property, freedom of expression and information, equality and non-discrimination, solidarity, and citizens' rights and justice, as well as security and safety, while being subject to the principle of proportionality;

Ethical principles

1. Considers that the existing Union legal framework should be updated and complemented, where appropriate, with guiding ethical principles for the design, engineering, testing and use of robots and artificial intelligence to ensure that such technologies can really improve the quality of human life; calls for the precautionary principle to always be taken into account in the development and use of such technologies;

2. Believes that robotics and artificial intelligence, especially those with built-in autonomy, including the capability to independently extract, collect and share sensitive information with various stakeholders, and the possibility of self-learning or even evolving to self-modify, should be subject to robust conceptual laws or principles, such as that a robot may not kill or harm a human being and that it must obey and be controlled by a human being; that the process by which robots and artificial intelligence collect, use and process personal data must be transparent and comprehensible; believes that these principles should be technology neutral and based on empirical research; supports the development of an ethics-by-default framework for researchers, academia and engineers which ensures that these technological solutions will not hinder research and technological developments but will be in compliance with existing Union and national ethical practices and codes as well as with the

[1] Regulation (EU) 2016/679 of 27 April 2016 of the European Parliament and of the Council 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) (OJ L 119, 04.05.2016, p. 1).

rights and principles enshrined in the CFR, in particular human dignity, the respect for and protection of private and family life, security and safety, the protection of personal data, protection of intellectual property, the freedom of expression and information, equality and non-discrimination, solidarity, and citizens' rights and justice, and should be subject to proportionality;

3. Acknowledges that the definition of such laws and principles and their practical implementation require more research in the field of ethics of artificial intelligence; considers that the European Group on Ethics in Science and New technologies could eventually play a role in the definition of ethical guidelines and standards which are both forward-looking and responsive to technological changes in the future;

4. Underlines the need to address the psychological and societal impact of human-robot-interaction as well as the dual character of the impact of technology on human capabilities, with special attention for vulnerable groups, in particular children, to avoid creating harmful dependence on robots, e.g. through evocation of emotional response, or isolation of these humans from reality;

5. Stresses that robotics and artificial intelligence, especially health, care and domestic robotics and medical cyber-physical systems, of which certain elements can be implanted in or worn on the human body, will have a significant impact on human life, in particular for people with disabilities; notes, therefore, that it is crucial to ensure inclusive and equal access to these technologies; points further to such robotics' impact on user privacy due to their access to traditionally protected spaces and sensitive personal information; believes that the respect of principles of medical ethics, safety of patients, and the integrity of care provided should be ensured;

Privacy and data protection

6. Reiterates that the right to the protection of private life and the right to the protection of personal data as enshrined in Article 7 and 8 CFR and Article 16 TFEU apply to all areas of robotics and artificial intelligence and that the Union legal framework for data protection must be fully complied with; underlines the responsibility of designers of robotics and artificial intelligence to develop products in such a way that they are safe, secure and fit for purpose and follow procedures for data processing compliant with existing legislation, confidentiality, anonymity, fair treatment and due process;

7. Calls on the Commission to ensure that any Union legislation on robotics and artificial intelligence will include measures and rules which take into account the rapid technological evolution in this field, including in the development of cyber-physical systems, to ensure that Union legislation does not lag behind the curve of technological development and deployment; stresses the need for such legislation to be compliant with rules on privacy and data protection, i.e. concerning information obligations, the right to obtain an explanation of a decision based on automated processing, the requirement to follow the principles of privacy by design and by default, the principles of proportionality, necessity, data minimisation, purpose limitation, as well as transparent control mechanisms for data subjects and data protection authorities, and appropriate remedies in compliance with current legislation; calls for the review of rules, principles and criteria regarding the use of cameras and sensors in robots, artificial intelligence in accordance with the Union legal framework for data protection;

8. Calls for a uniform, horizontal approach to robotics and artificial intelligence in the Union regulatory framework which is technology-neutral and applies to the various sectors in which robotics could be employed, such as transport, health, industrial manufacturing, telecoms, law enforcement and many others; emphasizes that, where appropriate, the existing legal framework should be updated and complemented to ensure an equal level of data protection, privacy and security;

9. Highlights the importance of preventing mass-surveillance through robotics and artificial intelligence technologies;

10. Calls on the Commission and the Member States to promote strong and transparent cooperation between the public and private sectors and academia that would reinforce knowledge sharing, and to promote education and training for designers on ethical implications, safety and respect of fundamental rights as well as for consumers on the use of robotics and artificial intelligence, with particular focus on safety and data privacy;

Security of data and data systems and the flow of data

11. Underlines that the free flow of data is paramount to the digital economy and is essential for the development of robotics and artificial intelligence; highlights that a high level of security of robotics and artificial intelligence systems as a whole, including their internal data systems and data flows, is crucial for the adequate utilisation of robots and artificial intelligence; emphasises that the protection of networks of interconnected robots and artificial intelligence has to be ensured to prevent potential security breaches, cyber-attacks or misuse of personal data, especially when a large amount of data is collected and processed; stresses the need to design a mechanism that enables the user to stop the processing of his or her personal data in the event of a security breach; points to the importance of research and development activities in the area of data-securing techniques and underlines the joint responsibility of public and business to cooperate to guarantee a high level of safety, security and privacy of data used for the communication between people and robots and artificial intelligence, together with a high quality of voice and sign language recognition systems; believes that commercial hardware and software producers should be held responsible in case of serious breaches of data security caused by their negligence; calls on the Commission and Member States to support and incentivise the development of the necessary technology, including security by design and channels of communication;

Drones (Remotely piloted aircrafts systems, RPAS)

12. Underlines that when personal data are processed by RPAS, whether by public authorities for law enforcement purposes or by private or public entities for other purposes permitted by law, the right to liberty and security and the right to respect of private life as enshrined in Articles 6 and 7 CFR, the right to the protection of personal data stipulated in Articles 8 CFR and 16 TFEU apply and the Union legal framework for data protection must be fully complied with; calls on the Commission to examine the need to introduce an obligatory tracking and identification system for RPAS which enables aircraft's real-time positions during use to be determined.

13. Reiterates its call on the Council to develop a strict and effective common Union framework on the use of armed drones, giving the utmost importance to respect for ethical principles, human rights and international humanitarian law and addressing issues such as the legal framework, proportionality, accountability, transparency and the protection of civilians, including taking all feasible precautions to avoid erroneous targeting and the infliction of incidental civilian harm and ensuring that ultimate control and responsibility lies with a human being; repeats its demand for a ban on the production, development, and use of fully autonomous weapons which enable strikes to be carried out without human intervention; urges the Commission and the Member States to launch a broad international policy dialogue aiming to establish global legal standards on and legal and ethical limitations to the development, proliferation and use of increasingly autonomous weapon systems, e.g. in the form of a binding international agreement;

14. Acknowledges the positive advances in drone technology, particularly in the field of search and rescue, and maintains this is the direction the Union should be going in relation to advancing drone technology.

Code of conduct

15. Considers that, in specific areas where relevant studies show that the development of legislation would be premature, appropriate legislation should be accompanied by encouragement of a soft law framework, code of conduct or public-private partnerships, possibly Union-wide, in order to ensure the cooperation of the industry and robotic designers with public authorities and all other relevant stakeholders; believes that such instruments should focus on practical solutions to ensure privacy and data protection, human dignity, non-discrimination, the security and ethics of the robotics industry, and the proper use of robots and artificial intelligence on a daily basis.

RESULT OF FINAL VOTE IN COMMITTEE ASKED FOR OPINION

Date adopted	17.11.2016
Result of final vote	+: 47 –: 0 0: 2
Members present for the final vote	Heinz K. Becker, Malin Björk, Michał Boni, Caterina Chinnici, Ignazio Corrao, Frank Engel, Tanja Fajon, Lorenzo Fontana, Mariya Gabriel, Kinga Gál, Ana Gomes, Nathalie Griesbeck, Sylvie Guillaume, Jussi Halla-aho, Monika Hohlmeier, Filiz Hyusmenova, Sylvia-Yvonne Kaufmann, Cécile Kashetu Kyenge, Marju Lauristin, Juan Fernando López Aguilar, Monica Macovei, Roberta Metsola, Claude Moraes, József Nagy, Péter Niedermüller, Judith Sargentini, Birgit Sippel, Branislav Škripek, Csaba Sógor, Helga Stevens, Traian Ungureanu, Bodil Valero, Harald Vilimsky, Josef Weidenholzer, Tomáš Zdechovský
Substitutes present for the final vote	Daniel Dalton, Anna Hedh, Teresa Jiménez-Becerril Barrio, Ska Keller, Jeroen Lenaers, Andrejs Mamikins, Maite Pagazaurtundúa Ruiz, Christine Revault D'Allonnes Bonnefoy, Barbara Spinelli
Substitutes under Rule 200(2) present for the final vote	Lynn Boylan, Verónica Lope Fontagné, Mylène Troszczynski, Tom Vandenkendelaere, Rainer Wieland