OPINION

of the Committee on the Internal Market and Consumer Protection

for the Committee on Industry, Research and Energy

on the comprehensive European industrial policy on Artificial Intelligence and Robotics

Rapporteur for opinion: Dita Charanzová

(*) Associated committee – Rule 54 of the Rules of procedure
(Simplified procedure – Rule (50)2 of the Rules of Procedure)
SUGGESTIONS

The Committee on the Internal Market and Consumer Protection calls on the Committee on Industry, Research and Energy, as the committee responsible, to incorporate the following suggestions into its motion for a resolution:

A. Whereas developments in Artificial Intelligence (AI) are unfolding at a fast pace and whereas AI has already played a part in our daily lives for several years; whereas AI and robotics are boosting innovation, leading to new business models and playing a key role in transforming our societies and digitalising our economies in many sectors, such as industry, healthcare, construction and transport;

B. Whereas China and the United States are the leading countries in AI technologies and the EU is now lagging substantially behind; whereas it will be impossible for the EU to catch up without a coordinated approach at European level; whereas a common approach to AI would allow the EU to better promote its values worldwide and to play a greater and more effective role on the global stage;

C. Whereas around a quarter of all industrial robots and half of all professional service robots in the world are produced by European companies, and the EU therefore already has important assets on which it should base its European Industrial Policy;

D. Whereas a common approach will facilitate the development of AI technologies for the benefit of society, while also addressing the challenges presented by these technologies in order to foster innovation, enhance the quality of AI-enabled products and services, improve consumer experience and trust in AI technologies and robotics, and avoid the fragmentation of the internal market;

E. Whereas the development of AI and robotics needs to include society as a whole; whereas, however, in 2017, rural areas remained largely excluded from the benefits of AI, as 8% of homes are not covered by any fixed network, and 53% are not covered by any ‘next-generation access’ technology (VDSL, Cable Docsis 3.0 or FTTP);

F. Whereas development of AI-enabled services and products requires connectivity, free flow of data and accessibility of data within the EU; whereas use of advanced data mining techniques in services and products may help to increase the quality of decision-making, and hence consumer choice, and improve business performance;

G. Whereas cybersecurity is vital for ensuring that data is not maliciously corrupted or misused to make AI function in a way that is detrimental to citizens or companies, which would undermine industry and consumer trust in AI; whereas developments in AI increase reliance on these systems for actions and decisions, which in turn necessitates high standards of cyber resilience in the EU to protect against cybersecurity breaches and failures;

H. Whereas technological developments in smart products and services can benefit the knowledge economy, which is based on the quantity, quality and accessibility of information available, and can thus lead to better adaptation to consumer needs;
1. Whereas consumers should be able to trust the technology they interact with, and whereas there is therefore a need to respond to ethical concerns over the development of AI and robotics; whereas the EU should base its response to these concerns on respect for the values enshrined in Article 2 of the Treaty on European Union and the EU Charter of Fundamental Rights; whereas the High-Level Expert Group on Artificial Intelligence established by the Commission will develop draft AI ethics guidelines by the end of 2018;

1. Underlines that the first and most important condition in order for the EU to catch up on AI is that it act within a common framework;

2. Stresses that uncoordinated actions in terms of R&D, diverging decisions in terms of regulation and actions at international level further distance the EU from this goal;

3. Notes that a number of Member States already have their own national AI strategies and welcomes the fact that all Member States signed a Declaration on Cooperation on Artificial Intelligence in April 2018, as well as the upcoming coordinated plan on AI between the Commission and the Member States, but calls on all involved parties to aim at the highest possible level of cooperation;

A society supported by Artificial Intelligence and robotics

4. Recalls the fact that Europe has a world-leading AI research community, which accounts for 32% of AI research institutions worldwide;

5. Underlines the fact that EU researchers continue to earn significantly less than their counterparts in the US and China and that it is known as the primary reason for them to leave Europe; calls on the Commission and the Member States to focus on attracting top talent to European companies, and on the Member States to create attractive conditions;

6. Stresses the importance of targeted measures to ensure that small and medium-sized enterprises and start-ups are able to adopt and benefit from AI technologies; believes that impact assessments of the effects of new EU legislation on the technological development of AI should be mandatory and that such impact assessments should also be considered at national level;

7. Calls on the Commission, in order to foster a regulatory environment that is favourable to the development of AI and in line with the principle of better regulation, to regularly re-evaluate the current legislation in order to ensure that it is fit for purpose regarding AI, while respecting EU fundamental values, and to seek to amend or substitute new proposals where this is shown not to be the case;

8. Recommends further work to increase connectivity in neglected areas, such as rural areas, and neglected sectors, in order to have a genuinely inclusive digital transition;

9. Highlights the fact that the wider introduction of AI technologies may replace certain professions, in particular those that are most likely to be automated, and create new ones; recalls that a significant proportion of the EU population – 37% of the labour force –
does not have basic digital skills; underlines that the Commission forecasts a significant shortage of ICT experts, predicting 750 000 job vacancies by 2020;

10. Urges Member States to modernise their professional training and education systems in order to take into account scientific progress and developments in the field of AI, in line with the Proportionality Test Directive and the Professional Qualifications Directive, and to make EU professional services globally competitive in the coming decades;

The technological path towards artificial intelligence and robotics

11. Believes that the new set of rules governing the free flow of non-personal data in the Union allows for more and more data to become available for data-driven innovation, making it easier for SMEs and start-ups to develop innovative AI-enabled services and to enter new markets, while allowing citizens and businesses to benefit from better products and services;

12. Recalls that the Regulation on the free flow of non-personal data states that if technological developments make it possible to turn anonymised data into personal data, such data are to be treated as personal data, and Regulation (EU) 2016/679 is to apply accordingly;

13. Acknowledges the potential of data sharing, in the context of the future development of deep learning, in particular as regards high value datasets, given their significant civic or socio-economic benefits and suitability for the creation of value-added services and applications;

14. Underlines the importance of open non-personal data from public and private sources and believes that a regulatory framework, including the re-use of public sector information should support access to open data and interoperability; urges the Commission to consider establishing a secure and voluntary single gateway for facilitating the exchange of non-personal data on the EU level, in order to create simplified data collection;

15. Underlines that consumer trust is essential to the development of AI and that AI-based systems deal with more and more consumer data, which makes them prime targets for cyber-attacks; also highlights the fact that AI has to function in a way that is not detrimental to citizens and consumers and considers that the integrity of the data and algorithms it relies on must therefore be secured;

16. Stresses the importance of recognising, identifying and monitoring disruptive developments in and around the development of AI; encourages research into AI to also focus on the detection of accidentally or maliciously corrupted AI and robotics;

Industrial policy

17. Considers that the Union should be better equipped against cyber-attacks; encourages the swift completion of the Strategy for Cybersecurity that should ensure the development and deployment of safe AI and robotics systems that are resilient to cyber-attacks, notably via the development of EU certification schemes; believes that ENISA should
prepare an action plan on cybersecurity in the area of AI, which should assess and address threats and weaknesses specific to AI;

18. Underlines that the development of a strong and competitive AI and Robotics industry cannot rely solely on public funds; highlights the importance of mobilising private funds to foster innovation and to achieve a developed AI and robotics industry in the EU;

19. Recalls that while AI and robotics already have long-established industrial applications, advancements in the field are expanding and providing wide and diverse applications in all human activities; believes that any regulatory framework must include flexibility that allows for innovation and free development of new technologies and uses for AI; underlines that regulation should not hinder research and development in the private sector;

20. Calls on the Commission to ensure that Digital Innovation Hubs do not lead to the creation of additional administration layers but focus on accelerating investments in projects that have proven their efficiency; calls on the Commission to focus on grants and financial assistance towards private R&D projects; underlines the need for greater use of public-private partnerships in AI;

21. Believes that AI will be a great asset in terms of implementing the ‘once only’ principle, enabling the combination of databases and information from different sources, and thereby facilitating citizens’ interactions with public administrations;

Legal framework for artificial intelligence and robotics

An internal market for artificial intelligence

22. Considers that Member States should ensure the creation of data based on the principle of ‘open by design and by default’, while ensuring a consistent level of protection of public interest objectives, such as public security or personal data protection, including where sensitive information related to critical infrastructure is concerned;

Responsible development and free movement of smart goods

23. Underlines the importance of the mutual recognition principle in the cross-border use of smart goods, including robots and robotic systems; recalls that, when necessary, testing, certification and product safety should ensure that certain goods are safe by design and by default; notes in this context the importance of also working on the ethical aspects of AI;

24. Stresses that AI applies to a variety of sectors where standardisation is of high relevance, such as smart manufacturing, robots, autonomous cars, virtual reality, healthcare and data analysis, and believes that EU-wide standardisation for AI will foster innovation and guarantee a high level of consumer protection; acknowledges that whereas a significant number of standards on issues such as safety, reliability, interoperability and security exist, further promotion and development of common standards for robotics and AI is necessary and should be part of the Union’s priorities; calls on the Commission, in cooperation with EU standardisation bodies, to continue to engage proactively with international standardisation bodies on improving standards in this field;
25. Urges the Commission and the Member States to promote small-scale live testing of innovative products and technologies (so-called sand-box innovation), before such products are placed on the market;

26. Recognises that robotics and AI technologies are increasingly used in autonomous vehicles, such as autonomous cars and civilian drones; notes that some Member States are already enacting or considering legislation in this area in particular, which could result in a patchwork of national legislation hampering the development of autonomous vehicles; calls, therefore, for a single set of Union rules that strikes the right balance between the interests of and potential risks for users, businesses and other concerned parties, while avoiding over-regulation in robotics and AI systems;

Free provision of AI-driven services

27. Recalls that there is a continuous evolution in technologies for analysis, exploitation and processing of data, such as machine learning, AI and the Internet of Things, and that rapid technological evolution makes it possible to create new services and new applications, which are built upon the use, aggregation or combination of data;

28. Recalls that many policy aspects relevant for AI-enabled services, including rules on consumer protection and policy on ethics and liability, are covered by the existing regulatory framework on services, namely the Services Directive, Professional Qualifications Directive and e-Commerce Directive;

29. Underlines that humans must always be ultimately responsible for decision-making, especially for professional services such as the medical, legal and accounting professions; considers that reflection is needed on whether supervision by a qualified professional is necessary, with a view to protecting legitimate public interest objectives and providing high quality services;

30. Recognises the importance of improved digital services such as virtual assistants, chatbots or virtual agents, bringing unprecedented operational efficiencies, while duly acknowledging the need to develop a human-centric and market-driven AI to produce better and more reliable decisions in view of the limits to the autonomy of AI and robotics;

Consumer protection and empowering consumers

31. Considers that AI technologies developed for both manufacturing and individual use should be subject to product safety checks by market surveillance authorities and consumer protection rules ensuring, where appropriate, minimum safety standards and addressing the risk of accidents resulting from interaction with, or working in proximity to, humans; believes that ethical issues and issues of data protection, including third-party and personal data, civil liability and cybersecurity, should be considered in any policy on AI;

32. Recalls that algorithms are the cornerstones of AI and robotics; calls on the Member States to ensure that only high quality data is used for AI, and in particular that it is up to
date, accurate and reliable, in order to ensure consumer trust and acceptance; recalls in this regard the importance of explainability of decision-making processes of AI technologies and unbiasedness of algorithms, while respecting EU law in particular on trade secrets, and of creating review structures to remedy possible mistakes in decisions taken by AI;

33. Stresses the importance of user-friendly AI in fostering consumer trust; believes that where final and permanent decisions are made by AI and not by humans, consumers should be made aware of this and be able to seek human review and redress; stresses that when interacting with an automated system, users should be informed about how to reach a human and how to ensure that a system’s decisions can be checked and corrected;

34. Takes note of the Commission staff working document of 25 April 2018 on liability for emerging digital technologies (SWD(2018)0137); notes its conclusion that while the current liability framework is still stable and functioning, it should be reviewed by the expert group on liability in light of new AI technologies, in order to ensure it is fit for purpose and includes the perspectives of the consumer, innovators and companies operating in the EU;

35. Stresses the need to educate citizens, and especially younger citizens, to understand how AI works; calls for greater empowerment of EU citizens and consumers by making AI more available to citizens, consumers and civil society; believes that this can be achieved by offering intensified and widespread education for a better understanding of AI.
**INFORMATION ON ADOPTION IN COMMITTEE ASKED FOR OPINION**

<table>
<thead>
<tr>
<th>Simplified procedure - date of decision</th>
<th>16.5.2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Date adopted</td>
<td>4.12.2018</td>
</tr>
</tbody>
</table>