Committee on Industry, Research and Energy

2018/2088(INI)

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DRAFT REPORT

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

Committee on Industry, Research and Energy

Rapporteur: Ashley Fox

Rapporteurs for the opinion (*):
Dita Charanzová, Committee on the Internal Market and Consumer Protection
Mady Delvaux, Committee on Legal Affairs
Michał Boni, Committee on Civil Liberties, Justice and Home Affairs

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

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United in diversity

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MOTION FOR A EUROPEAN PARLIAMENT RESOLUTION

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

The European Parliament,

– having regard to Rule 52 of its Rules of Procedure,

– having regard to the report of the Committee on Industry, Research and Energy and the opinions of the Committee on the Internal Market and Consumer Protection, the Committee on Legal Affairs, the Committee on Civil Liberties, Justice and Home Affairs and the Committee on the Environment, Public Health and Food Safety (A8-0000/2018),

A. whereas artificial intelligence (AI) and robotics have the potential to enrich our lives and further our capabilities;

B. whereas AI and robotics have the potential to reshape multiple industries and lead to greater efficiencies;

C. whereas rules and processes should be modified to account for artificial intelligence and robotics;

D. whereas AI alone does not ensure truth or fairness, as bias is introduced in how the data is selected and how the algorithm is written;

E. whereas AI and robotics should be developed to complement humans and human-centred development;

A society supported by artificial intelligence and robotics

Labour in the era of artificial intelligence and robotics

1. Stresses that automation derived from artificial intelligence will increase productivity and therefore increase output; notes that, as in previous technological revolutions, some jobs will be replaced but new jobs will also be created;

2. Urges Member States to focus on retraining workers in the industries most affected by automation; stresses that new education programmes should focus on developing the skills of workers so that they can seize job opportunities within the new jobs created by AI;

Artificial intelligence and robotics in an ageing society

3. Notes that AI and robotics have potential benefits in the care-giving sector as life expectancy increases;

4. Recognises that the increased use of sensors in the field of robotics has enhanced the scope of care giving and enables patients to receive care remotely from their own homes;

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5. Welcomes the ambition of Japan's Robot Strategy to have 4 out of 5 patients opt for robotic care and calls on the Commission to reciprocate this ambition;

Technological path towards artificial intelligence and robotics

Investments

6. Notes the importance of greater investment in this field in order to remain competitive; recognises that while most of the investment and innovation in this area comes from private sector ventures, Member States and the Commission should also be encouraged to invest in research in this sector and outline their development priorities; considers that the coordination of private- and public-sector investment should be encouraged to ensure that development is focused;

Innovation and societal acceptance

7. Notes that the future of this technology is contingent on societal acceptance and that greater emphasis must be placed on training and education to ensure greater understanding of the technology and its role; also notes that if consumers are not willing to adopt this technology, there will be less drive for innovation in this sector;

8. Welcomes the use of sandboxes to introduce, in cooperation with regulators, innovative new ideas, allowing safeguards to be built into the technology from the start, thus facilitating and encouraging its market entry;

Supporting conditions: connectivity, data accessibility and high-performance computing

9. Recalls that the availability of quality data is essential for real competitiveness in the AI industry, and calls for public authorities to ensure ways of producing, sharing and governing data by making data a common good;

Industrial policy

Public sector

10. Highlights that there are a number of benefits to be gained from AI and robotics in the public sector, and welcomes greater investment into research and development to ensure that this thrives;

Health

11. Notes the impact that AI has already had on designing personalised treatments and predicting heart attacks;

12. Notes that when AI is combined with human diagnosis the error rate is 0.5⁰%, compared with 3.5⁰% for diagnosis by human doctors alone;

13. Recognises that better diagnostics could save millions of lives as, according to the World Health Organisation, 89 % of premature deaths across Europe are caused by non-communicable diseases;

Energy

14. Notes that AI allows energy suppliers to move from preventive to predictive asset maintenance, owing to the large amount of data that can be processed; stresses that this will allow providers to deal with issues in a more timely manner;

15. Notes that solutions involving sensors are already being used to manage energy usage in houses and that this has resulted in considerable consumer savings;

Transport

16. Notes that AI and robotics have the ability to greatly improve our transport links through the introduction of driverless trains and motor vehicles; welcomes greater research and investment in this area to ensure its safe and effective development;

17. Notes that by reducing human error in the transport sector the system can become more efficient, with fewer accidents, thanks to greater clarity in judgement and the predictive nature of the technology, fewer delays, with the ability to map traffic patterns and run services on schedule, and greater savings, with fewer driver-related faults and streamlined internal processes;

18. Notes that the prevalence of autonomous vehicles in the future will shift the liability from the driver to the vehicle, requiring insurance companies to shift how they incorporate risk into their underwriting;

International competitiveness

19. Notes the work being conducted globally and recognises the need to work proactively with partners in shaping the direction this industry moves in to ensure that the EU remains competitive;

Ethical aspects

20. Believes that AI needs to be governed by a code of ethics in the same way that human behaviour is guided; recognises that in order to do this, rules must be in place to increase the accountability and transparency of algorithmic decision-making systems;

21. Calls for the creation of an ethical charter of best practice for AI and robotics that companies and experts should follow;

Decision-making – limits to the autonomy of artificial intelligence and robotics

22. Notes that AI will not be flawless but will remain a useful tool as long as fewer errors are made than when the same decisions are made by humans;

23. Highlights the need for a regulatory distinction between mistakes that arise from malfeasance and those that arise from innovative practices;

24. Calls for people to have a right of appeal when AI is used for decisions affecting individuals;

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25. Points out that while AI brings great benefits in automation and decision-making, it also carries an inherent risk when the algorithms are static and opaque; stresses, in this context, the need for greater transparency of algorithms;

26. Points out that the lack of transparency of these technologies raises a number of ethical issues;

27. Considers that algorithmic accountability should fall on the operator and be regulated by policy-makers through impact assessments based on established parameters;

28. Notes that disclosing the computer code itself would be ineffective because it would not reveal the inherent biases that exist and would fail to explain the machine-learning process; cites as an example of this Google's 'PageRank' algorithm, which enabled website owners to manipulate their pages with hidden content that would be interpreted as desirable in order to increase views;

29. Acknowledges that revealing the code would also discourage companies from R&D of new code, since their intellectual property would be at risk;

Governance

International governance

30. Welcomes the creation of the OECD AI Policy Observatory and encourages greater ambition in developing a roadmap for greater cooperation;

31. Stresses the different models being developed in third countries, concretely in the US, China, Russia and Israel, and highlights the values-based approach used in Europe and the need to work with international partners; recognises that this technology does not have any borders and requires cooperation beyond that of the EU Member States alone;

32. Calls on the Commission to work at an international level to ensure maximal consistency between international players;

Coordination at Union level

33. Welcomes the different strategies developed by the Member States;

34. Calls on the Commission to consider setting up a task force for AI with a view to providing the technical, ethical and regulatory expertise needed to support the relevant public actors, at both Union and Member State level, in their efforts to ensure a timely, ethical and well-informed response to the new opportunities and challenges;

35. Instructs its President to forward this resolution to the Council and the Commission.