



2015/2103(INL)

9.11.2016

OPINION

of the Committee on Employment and Social Affairs

for the Committee on Legal Affairs

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

Rapporteur: **Ádám Kósa**

(Initiative - Rule 46 of the Rules of Procedure)

PA_INL

SUGGESTIONS

The Committee on Employment and Social Affairs calls on the Committee on Legal Affairs, as the committee responsible to incorporate the following suggestions into its motion for a resolution:

1. Calls on the Commission to undertake urgently a thorough assessment of the impact of robotics on the number and types of jobs and on the quality and competence profiles of existing jobs; to gather information on new forms of employment in order to anticipate as efficiently as possible, first, whether the spread of robotics bring welfare and progress per se, whether it renders human labour unnecessary within the traditional production and service structure and, if so, what conditions are needed in addition to financial security in order to ensure that people are healthy in terms of mental and physical wellbeing, happy, and active citizens and whether theoretical benefits of symbiosis between humans and machines contribute effectively to wellbeing and development; and, second, whether in the changing labour market Member States' law and practice can ensure a socially just, inclusive and sustainable way at reducing inequality, poverty and social exclusion and an environment in which all human beings have equal opportunities to develop their talents, skills and their sense of being an individual;
2. Stresses that while the development of robotics and artificial intelligence is accelerating, it is crucial to shape its course and to anticipate the possible consequences with respect to employment and social policy because the increased and global use of robotics in the production of goods and in services results in higher productivity that can be achieved with little manpower and, consequently, over the next decade some jobs will be completely eliminated and many others affected; therefore calls on the Commission to carry out an analysis of the challenges and opportunities in employment and to develop a method to enable monitoring of the number and nature of jobs lost and created by robotisation and automation, and the impact of the phenomenon on income lost by social security systems; further calls on the Commission to assess regularly and in dialogue with the social partners to what extent weekly, annual and life working hours can be reduced without loss of income and to start exploring new financing options for future social protection systems and rethink how workers engage with their jobs and how digital labour platforms can better connect individuals, teams and projects;
3. Points out that many jobs will be lost as a result of robotisation, but that although individual working times will be shortened in many sectors of the economy, increased productivity could ensure that workers do not suffer any loss in wages;
4. Believes that robots should be designed using processes ensuring human control and the reversibility of robots' operations and that considering the increasing level of autonomy of robots, this should be accompanied by amending the rules on liability concerning the consequences associated with the actions or inaction of robots; is concerned by the lack of general framework and legal provisions with regard to work automation in this new and ongoing industrial revolution and considers it to be essential for the Union to specify a legal framework that reflects the complexity of robotics and its numerous social implications; therefore calls on the Commission to propose a common definition for smart autonomous robots and their subcategories in the workplace and to consider

the pros and cons of a compulsory insurance scheme covering the potential damage and failures caused by its robots;

5. Stresses that education and training systems must adapt to changes in professions and modes of production, putting more focus on jobs with creative and non-repetitive content in order to preserve the value of human labour and to provide all generations with all the tools needed to offer them the best possible preparation for the job market in a world that is constantly changing due to robotisation and automation; stresses the importance of the flexibility of skills and emphasises the importance of life skills and social skills in education; is certain that, in addition to schools teaching academic knowledge, children need to acquire critical thinking skills to be able to question and take informed decisions, creative skills to be able to put ideas into action and develop a sense of initiative, and that lifelong learning needs to be realised through lifelong learning; underlines that digital competences are essential for today's fast-paced automation and digitalisation of work and services require digital skills and competences to be developed in order to ensure a high level of employment, eradicate growing digital illiteracy and the risk of social exclusion that is associated with it; stresses that particular attention should be paid to the digitalisation of teaching and exploiting robotisation in teaching and learning while education should also emphasise humanities, which bring benefit in the form of creative, inventive, artistic and cultured qualities in the changing labour market for humans to continue to have a comparative advantage over machines;
6. Admits that robotics offers great potential for the support and relief, in particular, of people with a disability and elderly people in their everyday lives and could make a major contribution to their self-determined life and their inclusion in the labour market, is of the opinion that thorough consideration must be given to the question of what employment provisions might be necessary in terms of the labour force if the artificial or genetic development or supplementing of existing human capabilities results in people with extraordinary abilities, thereby fundamentally altering the meaning of the term 'disability' and conferring an unassailable advantage on people with access to such technological innovations, tools and interventions which will naturally raise ethical and moral questions that should be examined thoroughly;
7. Stresses that the individual decision to choose or reject an implant, prosthesis or extension to a human body must never lead to unfavourable treatment or threats with regard to employment, education, health care, social security or other benefits and stresses that all citizens must have equal and barrier-free access to benefiting from new technology; in this regard points out that, as human dignity is at the centre of Union and international human rights law, it is important to examine how to ensure that those who are not yet classified as disabled are not treated, in comparison to 'enhanced humans' at a disadvantage similar to persons with mental disability and persons with intellectual disability and whether persons living with mental disability and persons living with intellectual disability will be able to take independent decisions by means of supported decision-making as outlined in the Convention on the Rights of Persons with Disabilities with the help of robots and how to divide responsibility among them;
8. Points out however, that there are risks from using robots which should be carefully weighed against the benefits they might bring; notes that work injuries caused by robots

and related claims should be kept in mind; notes that, while wearable robot technology like exoskeletons aimed at protecting against workplace injuries might increase productivity, they could give rise to higher employer expectations of human workers and, in turn, to greater injury risks; points out that this must be taken into consideration, inter alia, by legislators, employers, unions and employees via internal rules, collective agreements and that other risks associated with robots might relate to anti-discrimination which could occur following a job interview in the event of data that was acquired leading to unintended analysis; notes that new challenges relating to trade and privacy may also arise as a consequence of the use of robotics;

9. Stresses that in the face of increasing divisions in society, with a shrinking middle class, it is important to bear in mind that developing robotics may lead to a high concentration of wealth and influence in the hands of a minority;
10. Notes that the impact on employment and social policy caused by technological progress and the ongoing robotisation has revolutionised the way in which people access and provide information, communicate, socialise and work, thereby creating new opportunities as well as challenges, opening up new prospects by possibly increasing the efficiency of activities, saving energy and materials; however, points out that, whilst robotics and artificial intelligence promise real advantages in the short and medium term in terms of effectiveness and economy not only for production and trade but also in areas where due to human interaction, intelligence and creativity, automation is difficult and hitherto meant there were only humans, such as in sectors in which large numbers of sometimes low-skilled people are employed, there may be a risk that the number of jobs in the field of robotics will not increase to match the number of jobs which are expected to be lost in areas such as transport, logistics and office work; therefore calls on the Commission and the Member States, in cooperation with the social partners and regional and local authorities where appropriate, to develop new mechanisms of protection which are suited to the working and career patterns shaped by digitalisation and the increased use of robotics and to provide suitable education and training for all people;
11. Points out that due to the development and use of smart, collaborative robots and artificial intelligence, the differential between the creation and loss of jobs may have consequences on the financial sustainability of social security schemes, pension systems and unemployment insurance systems of the Member States and highlights that a loss in employment in the medium and long term as a consequence of robotisation could also be associated with the risk of a loss in consumption capacity; stresses that the majority of benefits coming from automatisisation and robotisation in employment should come not only from reducing labour costs but also from raising productivity through fewer errors, higher output and improved quality, safety and speed; calls on the Commission and the Member States to consult and involve the social partners regularly when adapting the regulatory framework for robotics and the digital economy, to identify potential occupational health and safety risks stemming from technological innovations and take appropriate measures to counter them and to explore the possibility of introducing a notification system prior to the establishment of robots and their relative participation to the companies turnover for the purpose of taxation and social security contributions;

12. Calls on the Commission to present guidelines on the ethical and social principles set to accompany future regulations in the field of robotics, in particular with regard to the objective of defining forward-looking standards suitable for future technological developments;
13. Points to so-called crowdworking; calls on the Commission to look into this new form of employment and to examine to what extent social security systems and applicable labour law will need to be adjusted to provide appropriate protection for crowdworkers;
14. Stresses that whilst it is impossible to hold back technological progress, the present generation has the opportunity as well as the responsibility to shape its course in order to benefit people and the planet; is of an opinion that the Union should contribute to an integrated strategy in the policy areas of welfare, economic growth and technology in order to be at the forefront of global development; calls on the Member States and the Commission to study in great detail the near-future consequences of the increased use of robotic systems on labour and to provide a framework for this development with legislation designed to make technological transition as smooth as possible for employees and firmly believes that, as a matter of urgency, an answer must be found to the question of whether, as the result of further developments in robotics and less expensive solutions, there will be jobs in which the ability for humans to work will be restricted by law due to the harmful or dangerous nature of the work vis-à-vis human health (as with rules currently applicable for pregnant women) or for other reasons, and to find an answer to the question of which areas potentially might be considered to be restrictions or a ban on partial or total automation in order to guarantee safety and respect of fundamental rights challenged by increased automation of entire industries, taking into account demographic changes and sustainability and to avoid any unintended social consequences;
15. Believes that given the pace of technological advance we should aim to legislate for robotics for the foreseeable future; believes also, that legislation should be fit for purpose in order to react to scientific and technological changes; is of the opinion that it is necessary to anticipate the development of new business areas which could develop on the basis of the further development of robotics and artificial intelligence; however, points out that robots are not only tools for work but are increasingly acting autonomously in the production of goods and services therefore calls for comprehensive protection systems to ensure that the health and safety of workers is adequately protected when working with or alongside robotics and other forms of artificial intelligence and for liability rules that ensure that damage caused by autonomous robots can be clarified in favour of the employees; therefore calls on the Union and the Member States to encourage the initiation of a structured public dialogue on the consequences of developing those technologies as soon as possible and calls on the stakeholders involved in the research to develop a critical approach and to provide a constructive feed to the public dialogue;
16. Stresses that any processing activity carried out by robotics and artificial intelligence systems must be in full compliance with Union data protection law and must embed privacy by design and privacy by default principles;
17. Points out that robotisation offers considerable opportunities to bring the manufacturing

industry back to the Union and thereby create new employment opportunities, in particular for low-skilled workers;

18. Believes that the use of robots in production comes with major challenges for health and safety in the workplace; points out that robotisation can, on the one hand, reduce the physical burden on workers, but that it can also result in higher mental strain given the increasing responsibility of the individual in more complex production processes; calls on the Commission and its agencies, in particular EU-OSHA, to examine the effects of digitalisation, robotics and artificial intelligence on mental strain and to make proposals for counter-measures; calls for employees to be given the opportunity play an active part in shaping their work environment at all times and for social partners and unions to be involved at all levels;
19. Points to scientific studies which have identified four major problems that arise when trying to legislate for the use of robots: discretion, with regard to the platforms and manufacturers involved in the development and research of artificial intelligence, which might not always be visible to regulators; diffuseness which arises when artificial intelligence systems are developed using teams of researchers that are organisationally, geographically and jurisdictionally separate; discretion refers to the fact that artificial intelligence systems could entail many separate, distinct pre-existing hardware and software components; points out that the effects of bringing all those components together may not be fully appreciated until after the fact and that opacity means that the way in which artificial intelligence systems work may be more opaque than previous technologies; notes that this might constitute a problem for regulators as there is a lack of clarity concerning the problems that may be posed by such systems and how those problems can be addressed.

RESULT OF FINAL VOTE IN COMMITTEE ASKED FOR OPINION

Date adopted	8.11.2016
Result of final vote	+: 36 -: 7 0: 9
Members present for the final vote	Laura Agea, Guillaume Balas, Brando Benifei, Vilija Blinkevičiūtė, Enrique Calvet Chambon, David Casa, Ole Christensen, Martina Dlabajová, Lampros Fountoulis, Arne Gericke, Sergio Gutiérrez Prieto, Marian Harkin, Danuta Jazłowiecka, Agnes Jongerius, Rina Ronja Kari, Jan Keller, Ádám Kósa, Jean Lambert, Patrick Le Hyaric, Jeroen Lenaers, Verónica Lope Fontagné, Javi López, Morten Løkkegaard, Thomas Mann, Dominique Martin, Anthea McIntyre, Joëlle Mélin, Elisabeth Morin-Chartier, Emilian Pavel, João Pimenta Lopes, Georgi Pirinski, Marek Plura, Terry Reintke, Sofia Ribeiro, Maria João Rodrigues, Claude Rolin, Sven Schulze, Siôn Simon, Jutta Steinruck, Yana Toom, Renate Weber, Tatjana Ždanoka, Jana Žitňanská
Substitutes present for the final vote	Daniela Aiuto, Georges Bach, Amjad Bashir, Heinz K. Becker, Csaba Sógor, Helga Stevens, Neoklis Sylikiotis, Flavio Zanonato
Substitutes under Rule 200(2) present for the final vote	David Coburn