



ARTICLE

WILL ROBOTS SOON HAVE RIGHTS?



IT and Data Protection Intellectual Property, Media, and Art Law Competition, Retail and Consumer Law
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In the wake of the **Delvaux** report, the European Parliament adopted a resolution on February 16th inviting the Commission to draw up a proposal for a directive on civil law rules on robotics.

The Delvaux report concludes that humanity stands on the threshold of a new era when ever more sophisticated robots, intelligent algorithms, androids and other manifestations of artificial intelligence seem poised to unleash a new industrial revolution that is likely to leave no stratum of society untouched.

The evolution in robotics and in artificial intelligence thus raises legal and ethical questions that require rapid European intervention, questions that are successively raised in the resolution.

1. General principles

Common definitions: the Commission is called on to propose common definitions of cyber physical systems, autonomous systems and smart autonomous robots and their subcategories.

Registration of smart robots: the MEPs proposed the creation of a comprehensive EU system of registration of advanced robots in the internal market. The Commission was called on to define criteria for the classification of robots that would need to be registered, and to investigate whether it would be desirable for the registration system and the register to be managed by a designated EU Agency for Robotics and Artificial Intelligence.

Permanent human control: the MEPs considered that it was essential to guarantee that humans have control over intelligent machines at all times and that special attention should be paid to the possible development of an emotional connection between humans and robots, particularly in vulnerable groups (children, the elderly and people with disabilities).

2. Research and innovation

The MEPS called on the Commission and Member States (i) to strengthen financial instruments, including public-private partnerships for research projects in robotics and ICT, and (ii) to promote research programs in this field.

3. Ethical principles

The MEPs stressed the need to update the EU's existing legal framework on the basis of ethical principles that are clear, strict and efficient (such as the principles of beneficence, non-maleficence, autonomy and justice), guiding the development, design, production, use and modification of robots. To that end, a charter is proposed in the annex to the resolution (establishing a code of conduct for robotics engineers and a code for research ethics committees when reviewing robotics protocols), as well as model licenses for designers and users.

So that it is always possible to supply the rationale behind any decision taken with the aid of artificial intelligence, the resolution suggests that advanced robots should be equipped with a 'black box' that records data on every transaction carried out by the machine, including the logic that contributed to its decisions.

4. A European Agency

Parliament asked the Commission to consider setting up a European Agency for robotics and artificial intelligence in order to provide the technical, ethical and regulatory expertise needed to support public actors facing these new challenges and prospects, both at Union and Member State level (for example, in the transport sector).

This agency would be responsible, among other things, for defining standards for best practices and, where applicable, recommending regulatory measures, defining new principles and resolving potential consumer protection issues and systematic challenges.

5. Intellectual Property Rights

The MEPs note that there are no legal provisions that specifically apply to robotics, but that existing legal regimes and doctrines can be readily applied to robotics, and called on the Commission to support a horizontal and technologically neutral approach to intellectual property applicable to the various sectors in which robotics could be employed.

They also stressed the need to ensure the interoperability of network-connected autonomous robots that interact with each other. Access to the source code, input data and construction details should be available when needed, to investigate accidents and damage caused by smart robots, as well as in order to ensure their continued operation, availability, reliability, safety and security.



6. Flow of data

The MEPs stressed that the protection of networks of interconnected robots and artificial intelligence has to be ensured to prevent potential security breaches. In this respect, they emphasize that a high level of security and protection of personal data together with due regard for privacy in communication between humans, robots and any other form of artificial intelligence are fundamental.

The Commission and Member States were thus called on to ensure that civil law regulations in the robotics sector are consistent with the applicable principles in this field (consistency with the General Data Protection Regulation and with the principles of necessity and proportionality in particular).

7. Autonomous means of transport

Autonomous vehicles: the MEPs consider that the automotive sector is that in most urgent need of efficient rules to ensure the cross-border development of automated and autonomous vehicles so as to fully exploit their economic potential. The switch to autonomous vehicles will have an impact on the following aspects: civil liability, road safety, the environment, as well as access to, sharing and the protection of data. They consider that substantial investments in roads, energy and ICT infrastructure will be required.

Drones: the MEPs stressed the importance of a Union framework for drones to protect the safety, security and privacy of the citizens of the Union. They accordingly called for the application of the recommendations made by the European Parliament in its resolution of October 29, 2015 on the safe use of remotely piloted aircraft systems (i.e. unmanned drones), and called on the Commission to examine the need to have them equipped with a mandatory tracking and identification system enabling their real-time position to be determined.

8. The health field

Care robots: Parliament recognizes that robots could contribute to performing automated care tasks, thereby enabling medical staff to devote more time to diagnosis and better planned treatment options but stresses that human contact is a fundamental aspect of health care and that care should be taken to avoid dehumanizing patient care.

Medical robots: the MEPs consider that it is essential to respect the principle of supervised autonomy of robots, whereby the initial planning of treatment and the final decision regarding its execution will always remain the decision of a human surgeon. They also noted that while medical robots present many advantages (assistance in diagnosing and/or treating patients, high accuracy surgery and rehabilitation), the use of these technologies should not diminish or harm the doctor-patient relationship.

Human repair and enhancement: the resolution notes the great potential of robotics in the field of repairing and compensating for damaged organs and impaired body functions. It emphasizes the importance of urgently establishing in hospitals and in other health care institutions committees on robot ethics. It also recommends the creation of independent trusted entities that are capable of supplying services to persons such as maintenance or repairs, including software updates, especially in the case where such services are no longer carried out by the original supplier.

9. Education and employment

Parliament calls attention to the Commission's forecast that by 2020 Europe might be facing a shortage of up to 825,000 ICT professionals and that 90% of jobs will require at least basic digital skills. Several measures are contemplated: significant support to the development of digital skills in all age groups, development of more flexible training and education systems, initiatives to get more women into ITC. Without overlooking the great potential robotics has in terms of improving safety at the workplace, the Commission was nonetheless called on to monitor job trends in relation to robotics, and to analyze their impact on the viability of the social security systems of the Member States.

10. Liability

This is doubtless the key topic addressed by the resolution. For Parliament, civil liability for damage caused by robots is a crucial issue which needs to be analyzed and addressed at Union level. In this respect, the Commission was called on to present a proposal for a legislative instrument on the legal aspects of the development and use of robotics and artificial intelligence foreseeable in the next 10 to 15 years, combined with non-legislative instruments such as guidelines and codes of conduct.

The MEPs added that this legislative instrument:

- should in no way restrict the type or the extent of the damages which may be recovered, nor the nature of such compensation, on the sole grounds that damage is caused by a non-human agent.

- should opt between a "strict liability" approach (which only requires proof that damage has occurred and of the causal link between the damage suffered and the harmful functioning of the robot) and a "risk management" approach (where the focus is on the person who is able, under certain circumstances, to minimize risks and deal with negative impacts);



- once the parties bearing ultimate responsibility have been identified, their liability should be proportional to the actual level of instructions given to the robot and to its degree of autonomy (the greater a robot's autonomy, the greater the responsibility of its trainer should be).

The resolution also calls on the Commission to consider introducing an obligatory robotics insurance scheme, as well as a compensation fund, as is already the case for motor vehicles.

Lastly, if Parliament notes that, as matters now stand, liability for damage caused by robots must be imputable to a human, and calls on the Commission to consider, when carrying out an impact assessment, the implications of all possible legal solutions. In particular, Parliament does not exclude the creation, in the long run, of a specific legal status for robots, so that at least the most sophisticated autonomous robots could be established as having the status of electronic persons responsible for making good any damage they may cause.

On this sensitive issue of "legal personality", i.e. corporate personhood, the author of the initial document (Ms. Delvaux) was careful to specify during the discussion in Parliament leading up to the adoption of the resolution that *"the report does not advocate giving personhood to robots"*, but simply that this issue is worth bringing up with the Commission.

11. Next steps

The Committee on Legal Affairs of the Parliament launched, on February 7th past, a public **consultation that will be open until April 30th, 2017** on civil law rules on robotics, to obtain the opinions of stakeholders on the Delvaux report. The results will contribute to assessing the feasibility and content of possible policy initiatives of the European Union in this field, and in particular a proposal for a directive by the Commission.
