Amendment 4

Report
Mady Delvaux
Civil Law Rules on Robotics
2015/2103(INL)

Motion for a resolution
Paragraph 1

Calls on the Commission to propose the following common Union definitions of cyber physical systems, autonomous systems, smart autonomous robots and their subcategories by taking into consideration the following characteristics of smart robot:

- the acquisition of autonomy through sensors and/or by exchanging data with its environment (inter-connectivity) and the trading and analysing of those data;
- self-learning from experience and by interaction (optional criterion);
- the adaptation of its behaviour and actions to the environment;
- absence of life in the biological sense;

Calls on the Commission to propose the following common Union Definitions:

- Artificial intelligence is a computerised system able to simulate a part of human cognitive functions such as learning and problem solving;
- Robots are programmed computer controlled physical machines capable of carrying out a complex series of physical actions automatically;
- Cyber-physical systems (CPS) are engineered systems that are built from, and depend upon, the seamless integration of computational algorithms and physical components;
- Autonomous systems are physical systems with embedded energy source(s) allowing it to operate without
depending of one or more external sources of energy;

- Autonomous robots are physical robots with embedded energy source(s) allowing it to operate independently of one or more external sources of energy;

- Self-driving systems are programmed computer-controlled systems with physical captors giving local physical environment and position information of the system to the controller of this system, and able to control and operate physical self-generated movements (shiftings) without human intervention;

- Smart robots are autonomous robots with physical captors including cameras, scanning the local physical environment and providing geolocalisation data of the robot, data recording functionality (learning) associated with a programmed capacity to adapt its behaviour and actions accordingly, taking into account both the environment data and the data history stored by the robot itself;

- Humanoid robots are robots with a partial or total human body physical appearance;
Amendment 5

Report
Mady Delvaux
Civil Law Rules on Robotics
2015/2103(INL)

Motion for a resolution
Subheading 15 (before Paragraph 36)

Motion for a resolution
Human repair and enhancement
Amendment
Human repair

Or. en
Motion for a resolution

Paragraph 36

6. Notes the great advances delivered by and further potential of robotics in the field of repairing and compensating for damaged organs and human functions, but also the complex questions raised in particular by the possibilities of human enhancement, as medical robots and particularly cyber physical systems (CPS) may change our concepts about the healthy human body since they can be worn directly on or implanted in the human body; underlines the importance of urgently establishing in hospitals and in other health care institutions appropriately staffed committees on robot ethics tasked with considering and assisting in resolving unusual, complicated ethical problems involving issues that affect the care and treatment of patients; calls on the Commission and the Member States to develop guidelines to aid in the establishment and functioning of such committees;

Amendment 6

Amendment 7

Report
Mady Delvaux
Civil Law Rules on Robotics
2015/2103(INL)

Motion for a resolution
Paragraph 44

44. Highlights the importance of foreseeing changes to society, bearing in mind the effect that the development and deployment of robotics and AI might have; asks the Commission to analyse different possible scenarios and their consequences on the viability of the social security systems of the Member States; takes the view that an inclusive debate should be started on new employment models and on the sustainability of our tax and social systems on the basis of the existence of sufficient income, including the possible introduction of a general basic income;

44. Highlights the importance of foreseeing changes to society, bearing in mind the effect that the development and deployment of robotics and AI might have; asks the Commission to analyse different possible scenarios and their consequences on the viability of the social security systems of the Member States; recommends that employees who lost their jobs to robotisation should be offered ongoing trainings to improve their skills in other areas and sectors and help them find a new job;

Or. en
8.2.2017

Amendment 8

Report
Mady Delvaux
Civil Law Rules on Robotics
2015/2103(INL)

Motion for a resolution
Paragraph 59 – point f

Motion for a resolution
Amendment
f) creating a specific legal status for robots in the long run, 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, and possibly applying electronic personality to cases where robots make autonomous decisions or otherwise interact with third parties independently;

deleted

Or. en