EDRi's response to the European Parliament's consultation on Civil Law Rules On Robotics

I. Information about the respondent

You are replying as:
an organisation or a company

Please choose from one of the following options on the use of your contribution:
- My/our contribution can be published directly with my personal/organisation information (I consent to publication of all information in my contribution in whole or in part including my name/the name of my organisation, and I declare that nothing within my response is unlawful or would infringe the rights of any third party in a manner that would prevent publication).

The name of your organisation/company/public authority/international organisation:
European Digital Rights (EDRi)

Your full name (first name, last name):
Maryant Fernández Pérez

Email address:
maryant.fernandez-perez@edri.org

Is your organization included in the Transparency Register?
Yes

If yes, please indicate your Register ID number:
16311905144-06

Please indicate the type of organisation or company:
Non-governmental organisation

Is your organisation a multinational enterprise (groups with establishments in more than one country)?
No

How many employees does your company have?
1-9

Please provide a brief description of your organisation's activities: (optional)
European Digital Rights (EDRi) is an association of civil and human rights organisations from across Europe. We defend rights and freedoms in the digital environment. You can find our members here: https://edri.org/members/

Information technology has a revolutionary impact on our society. It has boosted freedom of communication and democracy but has also led to new approaches to surveillance and is increasingly used to impose restrictions on fundamental rights. Whenever citizens' rights and freedoms in the online environment are endangered by the actions of political bodies or private organisations, we ensure that they are respected.

EDRi's key priorities for the next years are privacy, surveillance, net neutrality and copyright reform.

Where are you based (resident) and/or where do you carry out your activity?
Belgium

Field of activity or sector (if applicable): choose at least one option
Information and communication

Has your organisation received funding from the EU in the last five years?
Yes. Specify the type of funding (i.e. R&D, start-up funding): https://edri.org/about

Finally, if required, may the European Parliament services contact you for further details on the information you have submitted?
Yes

II. B. Specialised Questionnaire
This questionnaire is addressed to a more specialised audience of key stakeholders, such as industries that are involved or may become involved in areas related to robotics and artificial intelligence; consumer organisations representing existing or future consumers; academics; public authorities or other professionals involved with robotics and artificial intelligence in a professional capacity.

The specialised questionnaire is structured in two parts: in Part 1 (15 questions) we wish to explore your experiences, and preferences, and the impacts on your industry of the technological development of robotics and AI; in Part 2 (6 sections) we welcome views on the concrete policy options as developed in the draft report by the European Parliament Committee on Legal Affairs.

* Part 1. Challenges, key issues and impacts of technological developments in the area of robotics and AI on your industry/organisation

In this section, we seek your views on the challenges, key issues and impact that your organisation/industry faces as a result of technological developments in the area of robotics and artificial intelligence. Please justify your choice(s). Where possible, please provide references to any evidence, data, reports or studies.

1. What implications has the development of robotics and AI in your field/industry/organisation?
1. Other.

The biggest implications of the development of robotics and AI for European Digital Rights (EDRi) relate to the huge growth of the challenges to fundamental rights, such as the right to privacy and personal data protection, security, integrity, self-determination and dignity. Most of real-world implementations of robotics or AI depend on the collection of data to regularly interact with the online and offline environment. Data collected or generated are sometimes very sensitive (e.g. healthcare robots) and or personal (e.g. house robots). These data are exchanged with other robots, machines, computers over a distributed network (such as Internet of Things) that makes it very hard to maintain control of the data. This control can be lost for technical and legal reasons. Technically, networks and robots cannot ever have perfect security; legally, the rules on privacy and data protection, which are designed to also help in the protection of security, integrity, human dignity of people, will become much harder to enforce in a network of connected robots and Artificial Intelligence (AI).

2. In your field, what are the key obstacles/barriers to market development in robotics and AI?
2.
- the EU legal framework
- national legal framework
- technical issues related to testing and application of technology

3. What action, in the context of technological developments in robotics and AI in your field, should the EU take to encourage innovation and global competitiveness in the European Union?
3.
- Better regulatory framework
- Better technical standards
- Better ethical standards

Better regulatory framework: the implications of developing robots, AI and the Internet of Things have an influence on users' rights and freedoms. Therefore, a harmonised legal action at EU level is essential. The GDPR contains key principles in this regard, most importantly and absolutely essential in this context are privacy by design, privacy by default and strict data minimisation. Moreover, it is important the Member States not abuse the flexibilities of the Regulation https://edri.org/analysis-flexibilities-gdpr/ In addition, the ePrivacy reform is an opportunity to specifically apply key GDPR principles into the electronic communications world, including robotics and IoT (indirectly, therefore AI). Other types of regulation should be created to deal with liability and safety, with a strong focus on accountability for and transparancyy of the data and algorithms involved. This approach will benefit all stakeholders.

Better technical standards: The economic incentives for security need to be addressed. With little or no local storage, IoT devices are heavily dependent on communications, so securing the communications path is as important as strengthening the device. Protecting the IoT is not like protecting a data centre. Securing the IoT requires looking at the whole ecosystem, not just individual points and devices. To leave the protection of the systems to the discretion of the producer is, at best, hazardous. In fact, if all but one company implement strong security in their own brand devices, the communication and the network still is in danger due to the one company device not implementing a high level of protection. Therefore, legal standards are needed to ensure a minimum, high security standard to ensure users' protection.

Better ethical standards: customers buy products that respect their values. Privacy by design and default are an essential way to create and maintain trust. Products that are not privacy friendly, or that are found to have privacy issues will suddenly become less attractive for customers (see the example of the Cayla doll and i-Que Robot) [https://fil.forbrukerradet.no/wp-content/uploads/2016/12/complaint-dpa-co.pdf; https://academic.oup.com/jiplp/article-abstract/11/11/856/2335247/Digital-markets-data-and-privacy-competition-law?rss=1].

4. What actions, in the context of technological developments in robotics and AI in your field, should the EU take to unlock the potential for growth and jobs in the European Union?
4. It is not within the scope of EDRi's work.

5. What actions should the EU take, in the context of technological developments in robotics and AI in your field, to enhance productivity in the European Union?
5. It is not within the scope of EDRi's work.

6. What are the societal and economic impacts that developments of robotics and AI bring, or could potentially bring to your field in the short to mid-term?
6.

- End users negatively impacted by diminishing level of privacy
- Societies are negatively affected by diminishing level of protection of fundamental rights (i.e. privacy, data protection)
Robots and AI are used and will be used increasingly in everyday contexts. These will permit the constant collection of a huge amount of behavioural data that could be exploitable by third parties. The source of collection and the data can be used by companies for targeted advertising or automated decision making (insurance, banks, etc.), or by governmental agencies for surveillance purposes, by criminals to spy on or blackmail people, etc.

7. In addition to actions at national level, what added value does the EU bring, or potentially bring to your field in the context of new technological developments in robotics and AI?
7. See the reference to the concept of 'harmonisation', at section 3.

8. Are there areas in your industry where potential innovation and growth based on new technological developments are at a standstill, due to a lack of or outdated EU law and policy?
No

9. to 13.
9. to 13. It is not within the scope of EDRi's work.

14. What measures, should the EU adopt to address societal and economic risks related to the development and use of robotics and AI in your field?
14. Robotics and AI need a harmonised framework legislation that maintains the high level standard of protection for the fundamental rights of EU citizens and thereby supports innovation. The range of potential harms is wide and is likely to grow. In fact, while first generation robots will be likely to create physical harm to humans (due to malfunctions in mechanics, software design or network failures), evolution in the nature of AI and robotics are likely to lead to an evolution in the types of harm that may be cause.. As explained above, some of the risks can be addressed by a good implementation and enforcement of the GDPR. The ePrivacy reform is essential to ensure privacy, confidentiality of communications, trust and security in the digital environment. Other types of legislation covering product liability and safety are needed.

15. Which industry (sector) do you think will experience fastest economic growth in the next three-five years, due to the development and application of robotics and AI?
15. Logistics and transport.

16. In your opinion, what are the key policy areas where EU intervention is most urgent?
16.
- autonomous vehicles
- drones

- other - "technologies for human repair and enhancement", if this refers to implanted devices.

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* Section 1: Ethics

1. In your opinion, what are the main risks related to the use of autonomous robots and AI? (max. three choices)
1.
- privacy
- security
- personal data protection

2. Do you support the introduction of a common European definition for a smart robot?
2. Neutral.

3. In your opinion what key specific characteristics of a smart robot must be reflected in the definition of an autonomous robot?
3.1 Acquires autonomy through sensors and/or by exchanging data with its environment (inter-connectivity) and trades and analyses these data: **neutral.**
3.2 It is self-learning from experience and by interaction: **neutral**
3.3 Has a physical support: **neutral.**
3.4 Adapts its behaviour and actions to its environment: **neutral.**
3.5 It is not alive in the biological sense: **neutral.**

First and foremost, it must be clarified what are the differences between smart robots, autonomous robots, cyber-physical systems and others. Paragraph 1 of the Adopted Text of Resolution on Civil Law Rules on Robotics refers to "cyber-physical systems, smart autonomous robots and their subcategories, (...) smart robot", without better clarifying what is the aimed target for the terminology.

Besides the openness and width of the definition, it needs a technologically neutral approach that is necessary, given the novelty of the technology. Technology neutral regulatory approaches are needed in order not to hamper, rather foster innovation, and for they extend the legal effects of existing and future regulatory frameworks.

4. Do you support the establishment of a registration system
for advanced robots at EU level?
4. I do not know

5. In your opinion, this EU level registration system for advance robots should:

5. I do not know

6. Do you support the establishment of an EU level framework for socially and ethically conscious technological development?
6. Yes.

7. In your opinion, an EU ethical framework should apply to robots from the stage of
7. Design

8. Please indicate how important or unimportant you consider the following measures to support socially and ethically conscious technological development?
8.1 A guiding ethical framework for the design, production and use of robots: **very important.**
8.2 Financial support for research projects that, among other issues, address social, ethical, legal and economic challenges raised by the technological development and its application: **very important.**
8.3 Development and support of research programmes at EU level that include a mechanism for short - term verification of the outcomes, to understand what real risks and opportunities are associated with the dissemination of these technologies: **very important.**
8.4 Development and support of initiatives and programmes that facilitate smoother transition of socio-ethical technologies from research to commercialisation on the market: **very important.**

9. You have indicated that a guiding ethical framework should be elaborated and adopted at EU level. In this context, how important are the following initiatives/codes of conduct?
9.1 A code of conduct for robotic engineers: **very important.**
9.2 A code for research ethics committees when reviewing robotics and protocols: **very important.**
9.3 Model licences for designers and users: **neutral.**

10. You have indicated that a code of conduct for robotic engineers should be elaborated and adopted at EU level. In this context, what in your view are the most important principles that should be included in the code of conduct?
10. All very important.

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* Section 3: Connectivity, intellectual property rights, and the flow of data

1. Please indicate to what extent you support or oppose the following statements on the necessity for EU action(s) related to connectivity, intellectual property rights, and the flow of data? The EU

should take action(s) ...
1. 1.1. & 1.2.: neutral.
1.3 ("To elaborate criteria for an 'own intellectual creation' for copyrightable works produced by computers or robots"): **strongly oppose**
Strongly support the rest

Point 1.1 makes little sense as a consultation question, as it is hard to oppose a balanced approach to anything..
Point 1.2 is too broad to be able to elicit meaningful responses.

Works produced by AIs shall not be given the status of intellectual creation. From a legal perspective, Ada Lovelace correctly argued in 1843: "the Analytical Engine has no pretensions whatever to originate anything. It can do whatever we know how to order it to perform". Creativity is defined in terms of human consciousness [Bridy, A. (2012). Coding creativity: copyright and the artificially intelligent author. *Stan. Tech. L. Rev.*, 1].

EDRi also supports what stated in the opinion of the Industry, Research and Energy committee (ITRE) of the EU parliament which "cautions against the introduction of new intellectual property rights in the field of robotics and AI that could hamper innovation and exchange of expertise [Paragraph 11, ITRE Opinion of the 15-11/2016 for the Committee on Legal Affairs with recommendations to the Commission on Civil Law Rules on Robotics (2015/2103(INL)]].

2. What issues related to developments in the robotics and AI sector should the EU address as a matter of priority? (max. three choices)
- **protection of personal data**
- **privacy in communication between humans, robots and AI**
- **security by design, including an obligation for designers of robots and AI to develop products that are safe, secure and fit for purpose**

When robotics, AI, and interconnected technologies are implemented together, the data that they collect and generate become more important as they could deal with very sensitive (e.g. health) and personal (e.g. relationship) information. In theory, such data can be anonymised (pseudo-anonymised, to be precise) to remove the personally identifiable information to protect individual privacy. However, the third parties who gain access (either legally or illegally) to this immense amount of personal data have proved that the privacy guarantees can fall short. See, for example: Big data: the broken promise of anonymisation, Thomas, M. (2014), https://www.gresham.ac.uk/lectures-and-events/big-data-the-broken-promise-of-anonymisation

As regards communication, there are different types of, and actors involved in communication. There is verbal communication, between humans and machines; digital communication, between

humans and machines and among machines; and there are different communication transmissions systems (satellite, radio, wireless, audio/visual, LAN, etc). All these types of communication suffer from security, privacy and confidentiality issues . As an example, verbal commands require the robot to have an embedded audio recorder. The ways in which the recorder is activated is more or less privacy friendly if they fail to ensure appropriate authorisation and authentication mechanisms. For instance, voice activated recorders undertake constant recording for activation on speech and may or may not have a "listen and forget" technology in place. This works differently in robots that have an on/off button for voice commands . Robots should also embed technologies that embed privacy and security by design and by default principles to diminish the risks of, for example, privacy and security breaches. However, the even bigger problem lies in identifying liabilities in cases of harm caused to people.

3. In your opinion, what are the biggest obstacles and deficiencies related to intellectual property rights, connectivity, and flow of data in the current EU regulatory framework?
3.
As regards **intellectual property**, one of the biggest obstacles for the expansion of robots and AI in the EU regulatory framework is that rules on intellectual property and neighbouring rights are sometimes too much in favour of the right holders, which is to the detriment of security and safety. One of the concern related to network-connected autonomous robots is in fact that interoperability will be ensured both technically and legally. The current regulation would not permit such interoperability, as right holders do not want to share valuable information in relation to, for instance, source codes, input data, and construction details. In this regard, the parliament's proposal to permit the access to such information 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" is welcome.

As regards **connectivity**, the EU still has to conduct efforts to achieve better connectivity. EDRi encourages to sustain community networks: https://edri.org/open-letter-community-networks-essential-providing-affordable-internet-access/
In addition, new technological developments must respect the "Regulation 2015/2120 laying down measures concerning open internet access.

Regarding the "**flow of data**", a clarification of what it is being referred to would be welcomed (see, e.g. https://edri.org/free-flow-of-data/). With regard to the flow of personal data, the GDPR addresses any issues that could arise. Therefore, a new legislative proposal is not needed. There are many more issues regarding privacy, security and the protection of personal data that should be considered.

4. Should you have further observations about connectivity, intellectual property rights, and the flow of data, please share your experience or suggestions here:

4. Other.

In relation to question 2, it is important to stress the importance of the security of networks of interconnected robots and AI, which has been partially discussed in answer 3.

- there is a need for clear rules on the real-life testing of the autonomous robots. Rules on robots shall be created having an idea of how these robots behave in real life;
- field testing shall not be taken as a definitive evidence of potential behaviours, relations, effects. Robots' AI can change constantly depending on the context and environment they are put into, and keep on building on an own behaviour the more they learn from real life events;
- a clear risk-based product liability should be introduced for putting robots on the market without transparency about their algorithms and allowing users to audit and fix security and safety issues;
- before putting into the market products whose potential behaviour is still so uncertain under so many perspectives and whose risk of harming people and networks is so high, a very thorough impact assessment has to be done;

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* <u>Section 4: Standardisation, safety and security</u>

1. Please indicate, whether you agree or disagree with the following statements:
'the development of EU standards in the field of AI and robotics technologies are of key importance ...'

1. All: strongly agree.

2. Please indicate how important or unimportant the following EU actions in the area of standardisation, safety and security, are for your industry?

2.1 EU involvement in the international harmonisation of technical standards, in particular together with the European Standardisation Organisations and International Organization for Standardization: **I don't know**

2.2 Revision of EU legislation in light of development of robotics and AI: **very important.**

2.3 Elaboration of uniform criteria across all EU Member States which individual Member States should use in order to identify areas where experiments with robots are permitted: **I don't know**

3. In your opinion, what are the biggest obstacles and deficiencies in the current EU regulatory framework related to standardisation, safety and security for robotics and AI.

3. See previous responses and https://edri.org/eprivacy-directive-document-pool/