ECIS European Committee for Interoperable Systems

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Summary of ECIS' lunch roundtable of 12 June 2017

"When does Artificial Intelligence become a liability?"

Policy and legal considerations as to who is liable for recommendations and actions that AI systems propose

1. ***Intervention by Juha Heikkila, Head of Unit, Robotics & Artificial Intelligence, European Commission***

First, Mr. Heikkila explained that their involvement in Artificial Intelligence ("AI") matters concerns the funding side of relevant projects. They consider AI as one of the key drivers of digital innovation noting the way it transforms the society and the day-to-day products we use. The European Commission (the "EC"), and his unit in particular, currently has more than 80 ongoing AI projects in a variety of fields varying from autonomous vehicles to robotics. A significant component of FP7 is used to fund these projects, and the EC is also working on a public private partnership ("PPP") in robotics. Mr. Heikkila noted that the EC is committed to investing in the sector. He also pointed out that while the EU is good at scientific research, it is less good when it comes to commercialisation.

He further added that citizens seem to be concerned by the use of these technologies, because of their impact on the future of humankind. More broadly, Mr. Heikkila noted that there are a number of legal and policy issues that should be considered when addressing AI:

- safety – especially in the case of smart collaborative systems;
- liability – related to the increase of autonomously entities;
- data protection and data ownership; and
- employment – in view of the potential job losses, and any implications with relation to skills.

In addressing those issues, Mr. Heikkila listed a number of questions that ought to be examined:

- When it comes to data protection, how are the notions of privacy and consent construed when it comes to large amount of data collected for the operation of autonomous entities?

- How do you deal with liability? Should we try to find the guilty party? Or should we better have a risk management approach?
- How do you deal with health and safety issues?
- Moreover, how you deal with defect products and product liability? Especially as the boundaries between products and services are blurry.
- We talk about autonomous devices, but if the system can be trained, what is the role of the trainer?
- Moreover, several of these systems can be inter-connected – what is the role of all these combined components?

Other issues include transparency and data bias.

Mr. Heikkila went on to say that we are not in a legal vacuum, and that there are a number of legal instruments that can apply in the context of AI. These instruments include:

- the Directive on liability for defective products (the "1985 Product Liability Directive");
- the Medical Devices Directive;
- the Machinery Directive;
- the General Data Protection Regulation.

He however added that new regulation is not by default a bad thing. Concerns about stifling innovation would be eliminated if any new regulation is done correctly.

Finally, Mr. Heikkila also mentioned the use of standards as a means to address outstanding questions when it comes to policy and legal issues that arise within the AI context.

2. ***Intervention by Professor Ian Walden, Professor of Information and Communications Law, Centre for Commercial Law Studies, Queen Mary University London***

Professor Walden introduced the topic of liability in the context of AI by suggesting that the main issues to examine include:

- the types of liability;
- attribution of liability; and
- ways in which we could remedy liability.

The types of liability. First, on the issue of the types of liability, Professor Walden explained that any technology can raise a range of loss – from physical loss to economic harm. A differentiating factor in the case of AI is that you have technology making decisions.

One of the first things you look into before assessing liability is the causation of harm. In this case, the question would be whether AI causes the harm. Professor Walden queried to what extent it would be appropriate to remove the element of fault in order to be left with strict liability, and therefore only look at causation.

Then, Professor Walden examined three types of liability. First, you have product liability, which is also the subject of the 1985 Product Liability Directive. For product liability to apply, there needs to be a defect. He pointed out that this Directive has rarely been considered by the Court of Justice of the European Union ("CJEU"), and perhaps the only and most recent decision on this legal instrument was in 2015. Second, there is negligence liability. The question in this case would be whether there is a duty of care between the person who is responsible for the AI deployment and the person who suffers the harm. Third, you have vicarious liability in which case you move away from the object and focus on the organisation's involvement. According to Professor Walden, it is worth noting that all types of liabilities offer solutions to the supposed conundrum we are looking into in the context of AI, and nothing is insoluble or new.

Attribution of liability. The second issue Professor Walden raised is that of attribution of liability – who is the entity that will be given liability? Would that be the producer? The importer? The supplier? To address that question it would be important to understand and recognise the supply chain. In this context, he also referred to the concept of the controller in the case of the GDPR. He also suggested that for the purposes of attribution one could undertake the effort of identifying the human in the loop. For example, in the medical area, it could be the doctor who receives the data from the machine-learning system. Furthermore, he noted that attributing special legal status to robots would be in nobody's wish list, and that in any case there is always some sort of human involvement at some stage. Professor Walden suggested that one could impose a statutory presumption, and potentially go

down the GDPR route. However, it is useful to have some sort of *de minimis* rule in attributing harm, and existing law is capable of dealing with such questions.

Remedying liability. As noted above, the third issue discussed by Professor Walden was that of remedying liability. He underscored that in addressing this point it is also important to understand how you deal with causation. The questions one needs to consider in this context include:

- whether you establish a regulatory requirement for a built-in accountability mechanism;
- whether you impose strict liability;
- whether you introduce an obligation for a standard of care;
- using insurance as an obvious route to deal with liability; and finally
- the possibility of establishing a fund / state fund to be used for such purposes (*e.g.*, in New Zealand the government has established a state fund for cases of medical negligence).

In his concluding remarks, Professor Walden highlighted that there is a lot of talk about complexity of AI. He noted that it's probably all about the evolution of things, rather than having a completely novel issue that needs to be addressed. His view is that we are quite capable of dealing with more complexity noting that autonomy is overstated, and that someone has made at some point decisions as to how a certain device operates. Therefore, autonomy should be considered as part of a broader process. For that reason, and in view of existing legal instruments, Professor Walden stressed he considers it to be too early to intervene.

Research papers on machine learning and legal liability questions:

- Dimitra Kamarinou, Christopher Millard, Jatinger Singh, Machine learning with personal data, available here: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2865811.
- Chris Reed, Elizabeth J Kennedy, Sara Nogueira Silva, Responsibility, Autonomy and Accountability: Legal Liability for Machine Learning, available here: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2853462.