Remarks in support of European Parliament's AIDA webinar with the European University Institute (EUI) on state of play on AI research

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In my brief intervention, I would like to focus on two challenges that require careful consideration from lawmakers and to discuss one problem that requires substantial ambition.

Let me start with the two challenges.[2] The first one is what I have called elsewhere the "paradox of irrelevant law" (Petit & De Cooman, 2020). It is common for all involved in policymaking to speculate. In a context of technological change, we have imperfect comprehension of technology capabilities, trajectories, and use cases. Policymaking being a rational enterprise, it operates based on the information available and must rely on imagined futures to generate baseline facts. Often, these imagined futures reproduce narratives derived from theoretical models, press coverage, and science fiction. Many works on law and AI start for example with a discussion of Asimov's Three Laws of robotics (Asimov, 1950). However, the future being what it is, it is not uncommon that lawmakers miss relevant technological evolution and work on fictional ones. An illustration of this is self-driving cars. The dominant hypothesis in most futuristic work before 2000 envisioned the period 2015-2025 with people in flying cars, not driverless ones. Experts had it right that cars would change. But they did not conjecture well how cars would change. Had legal experts changed the law, we would today have a detailed, useless law of flying cars.

The point here is not a suggestion that we should not regulate self-driving systems. Rather, the point is to ask ourselves whether we are making the right assumptions about technological change. For example, in a self-driving car, it is today unclear where the value will reside in the software, in the data, in the engine or (electrical?) battery, or the infrastructure and roads. And the answer to this question is key to any discussion about liability regimes (who should bear liability, should it be shared, etc.).

To take a clearer example, scholars and policymakers have spent a lot of time thinking about the issue of "technological unemployment" arising from AI and robotics. Recently, the company OpenAI

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[2] I did not make them up. They come from my understanding of the history of technology and law.

announced a new GPT-3 model called DALL·E that creates images from text. The news is interesting because the dominant hypothesis underpinning work on technological unemployment so far involved jobs with low creative skills.

Upshots? One, much investment in scenario planning capabilities is required, to make correct assumptions about the future of technology, and to keep policy options flexible as the technology develops. Two, it may be better to create institutions that can control continuously, correct, and monitor tech and develop scenarios, rather than adopt substantive legislation. Three, as ever, competition helps, and a model of decentralized pluralistic institutions for technological assessment is appropriate (Tribe, 1971). More personally, in my modest policymaking experience as a member of the High Level Expert Group of the EC on AI, I have often felt that our main problem was that we had insufficient knowledge of real AI capabilities. It is hard to get good information about the state of affairs of AI in technology and research organizations, beyond published research and press reports. This is a general problem. And I fear it might be more acute in Europe because even though a lot of AI research is done here, the biggest capabilities today are in the US or China.

The second challenge is that most lawmaking exercises assume that technology change involves an element of "newness", and that it is "disruptive". Technologists and economists have proven that wrong for a long time, in the sense that most technological evolution is incremental and combinatorial. And yet, the assumption of newness produces major consequences on policymaking. In particular, lawmakers often assume the existence of gaps in the legal system and calls to adopt new and *ad hoc* law around technologies. The problem of this mindset is easy to see through an example. Assume an AI-assisted robot gardener causes damage when mowing the lawn. Do we need to legislate specific rules on robot gardeners to address liability issues? The answer is surely no. *Nove sed non-nova* – not a new thing but in a new way. More importantly, sometimes the law is more advanced than the technology, and the perceived gap simply exists because the law is not enforced. There are examples in competition law. The law in the books (Article 102 TFEU) provides some flexibility that would allow the Commission and other agencies to address collusion without human communication, as well as perfect price personalization. Yet, competition experts are reluctant to apply it. Perhaps, it is not so much a rewriting of the rules that is needed, but a more daring application of the rules that is required.

The third remark is a call for ambition. In some areas, societies may choose to protect their cultural or natural integrity through precautionary regulation of technology applications. Genetic modification,

transhumanism, citizen scoring, lethal autonomous weapons, artificial consciousness, anthropomorphic robots, moral agents, malign superintelligences, are cases in point. All raise very hard questions for policymakers. They may arise in the short or long term, or never. They are rational concerns about fictional concepts. And they are existential.

In my view, these problems are also genuinely political. They raise a political question because they require a decision when expertise, stakeholder participation, and confrontation, no longer yields answers. Again, I experienced the limits of expertise personally in the context of the HLEG on AI. Our initial roadmap was to draw "*red lines*", defined as are nonnegotiable normative principles about what should *not* happen in the EU. It is an understatement to say that our group struggled to agree on a list of issues. At the end of the exercise, we even did not agree to call "red lines" the few items that we had identified. We eventually settled for the more diplomatic "critical concerns".

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