UNIVERSIDADE
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CONSULTATION ON THE WHITE PAPER ON ARTIFICIAL INTELLIGENCE - A EUROPEAN APPROACH

LUSÓFONA UNIVERSITY OF PORTO, FACULTY OF LAW AND POLITICAL SCIENCE (ULP) COMMENT on

COM(2020) 65 *White Paper on Artificial Intelligence – A European approach to excellence and trust, and COM(2020) 64 final – Report on the safety and liability implications of Artificial Intelligence, the Internet of Things and robotics*

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INTRODUCTION

University Lusófona of Porto welcomes the EU's White Paper on Artificial Intelligence and appreciates the opportunity to collaborate in the process of defining a legal environment that allows taking advantage of new technologies for the benefit and development of the European Union with respect for the values, principles and regulations of the Member states.

This consultation, despite having started before the covid-19 pandemic reached the EU, became even more relevant after this serious public health situation, which reinforced the need to urgently proceed with a better definition of the different topics covered in the White Paper. In fact, the contribution of technologies, especially Artificial Intelligence (AI), has proved to be essential for the processing and sharing of scientific data that the current situation requires. We were also able to see how digital technologies have made it possible for a large part of social and economic activities to continue to develop despite the restrictions imposed to control the spread of the pandemic. At the same time, several of the problems that existed before (namely, the processing of personal data and the respect for the dignity of human life) need now, more than ever, our attention.

The White Paper is centred in one powerful objective which is "to enable a trustworthy and secure development of AI in Europe, in full respect of the values and rights of EU citizens", and for that presents two central ideas considered essential to attain it that are to create an ecosystem of excellence along the entire value chain and an ecosystem of trust that ensure compliance with EU rules, including rules protecting fundamental rights and consumers' rights.

COMMENTS

1. The White Paper rightly points that Europe is well placed to benefit from the potential of AI, namely because, as stated, Europe holds large volumes of public and industrial data, the potential of which is currently under-used. And that is at the central aspect – Big Data – that indeed poses the opportunity and also the challenges that may became perils if not well addressed. In this regard, one of the main problems is distributing human rights and responsibilities arisen from the actions of non-humans. Thus, it is paramount to build up skills regarding A.I., not only vertically – as via advanced skills (as by Action 3, p. 7) by masters programmes – but also horizontally, creating a common basis of training, both technologically and in social sciences.

2. The importance of ensuring compliance with the fundamental values and rights of EU citizens makes the difference between a successful or a fragmented A.I. policy. In this regard, orienting A.I. towards a "principled" A.I. could imply – to pursue both excellence and trust – the drafting of a Charter of A.I., which would include the basic and fundamental principles surrounding A.I. within the E.U., centralizing such principles (and ethical guidelines) under one document. For example, a general principle of accountability would then have effects regarding both civil and criminal liability.

3. AI development will indeed need scientific basis such as academic centers dedicated to it, public and private funding to AI investigation, advanced technology available to investigation and experimentation, infrastructures capable of supporting AI experimentation, among other requirements. But AI is strongly dependent in algorithms that allow for machine (deep) learning and machine (partial or full) autonomous decisions, as for machine programming and machine training there is a need for a large volume of data.

4. Thereto, it is important to promote and support graduate (citizen level) and post-graduate (expertise level) courses with specific A.I. approach, establishing a European Resource Center

(open-access web page) in order to make available, in a centralized hub, the most relevant and actual academic and scientific materials on the main issues regarding A.I. (as in a virtual A.I. library). Such an action – together with Action 3 would be important, since aiming at harmonized legislation on behalf of the Member States regarding A.I., harmonized enforcement can only be attained through standard training, building mutual trust between all stakeholders.

5. In our opinion, the lighthouse research centre should have a specific unit, dedicated to the validation of algorithms before their usage by private or public sector entities. This validation unit should test the algorithm and propose any necessary change in order to assure its complete safety and compliance to the existing legal framework. A favourable report from this unit should be a condition for the approval of any new AI based system.

6. Machine learning algorithms may self-adapt in order to circumvent fundamental rights or at least make their breach very difficult to identify or classify. E.g., bias and discrimination have already been identified as a possible problem, therefore, we should expect that a AI system will already act in a way that makes it difficult (or even impossible) to detect if that decision was based in any criteria susceptible of contradicting European principles and fundamental rights.

7. Considering machine learning systems in particular, it seems to us that the cumulative criteria for assessing whether an AI application should be considered high-risk, is neither adequate nor sufficient, taking into account the possibility of AI to self-adapt in order to circumvent its classification in the predefined risk categories. Hence, Independently of certification and risk activities classification, human agency and oversight is always necessary for preventing any misuse of AI.

8. The current coronavirus pandemic showed how important it is the collection of data for public health purposes. Also, for security reasons (e.g. terrorism prevention), all available technology should be put to place.

9. The mitigation of risks should involve taking advantage of existing state entities (for example, to control the collection and use of data) and articulate them with the central supervisory entity for the use of AI technologies. We think that in view of the inherent risks, double-checking (at the European centralized level and national) would be justified.

10. The interplay of AI and Big Data necessarily brings for the discussion the interplay of Competition and Big Data, and not only the interplay of Fundamental (and privacy) rights and Big Data. AI is strongly dependent in algorithms that allow for machine (deep) learning and machine (partial or full) autonomous decisions, as for machine programming and machine training there is a need for a large volume of data. And, even if Europe may possess large volumes of underused public and industrial data, the reality is that in some areas private data will be essential, which poses some competition problems that are not even mentioned in the White Paper.

11. AI can be wrongly used to restrict or distort competition. In fact, it has been widely accepted and already detected situations where monitoring software were used to distort competition, as the Commission´s decisions in cases AT.40465 (Asus), AT.40469 (Denon & Marantz), AT.40181 (Philips), AT.40182 (Pioneer) demonstrate.

12. We may well preview that algorithms can use data – such as e.g. price data – to execute attain and even execute autonomous decisions on prices, sales conditions among other competition fundamentals. All of that without any conspiracy meetings for price fixing, market sharing or client allocations, but through competitive software that "intelligently" find the sweet collusive spot among them using data and analytics in a completely different "behavior" pattern.

13. It, thus, is paramount to establish a legal presumption of fault against the AI developer in case of liability for damages, therefore exempting the burden of proof from persons who have suffered harm caused with the involvement of AI systems. Having into consideration the national differences on the matters of liability for damages, we strongly recommend this subject to be specifically regulated in a future European Regulation on AI.

14. In fact, beyond compliance and ex-post sanctioning (via, e.g., machine liability), criminal enforcement is also to be considered, since there is a real peril of the re-orientation of AI technologies to the facilitation or commission of criminal acts (e.g., fraud schemes via Big Data). Considering such aspects is also paramount to achieving an ecosystem of trust, and the White Paper is lacking on specific orientation in this regard. On the other hand, the White Paper also lacks in orientation as to the use of A.I. in Law Enforcement – vis-à-vis the protection of fundamental rights of citizens and the limits of said use.

All these aspects were not fully considered in the White Paper and we consider them key aspects that need to be addressed. In fact, those challenges exist already, are real and from the present, and not future or possible problems.