ONTIER'S COMMENT ON THE EU COMMISSION'S *"WHITE PAPER ON ARTIFICAL INTELLIGENCE – A EUROPEAN APPROACH TO EXCELLENCE AND TRUST"*

19 May 2020

Section 1
INTRODUCTION

1. The White Paper and ONTIER's[1] intervention

On 19 February 2020, the European Commission released the "*White Paper on Artificial Intelligence – A European approach to excellence and trust*" (the "*White Paper*"). The White Paper is part of the Commission's digital strategy for Europe for the next five years and focuses on "*one of the most important applications of the data economy*": Artificial Intelligence (hereinafter, "*Artificial Intelligence*" or "*AI*").

While it is undeniable that AI is already part of our lives in several ways, the EU Commission's White Paper addresses AI with a comprehensive and elementary approach, and starts by acknowledging two main concepts:

- **a.** AI must be looked at as an incredible opportunity, able to change our lives in unthinkable ways and affecting most sectors ; and
- **b.** AI carries with it serious risks to be taken into consideration, nullified or mitigated.

After analyzing the benefits, risks and measures of AI, to maximize its pros and limit the occurrence of its cons, the EU Commission has called for debate on the subject, by launching "*a broad consultation of Member States civil society, industry and academics, of concrete proposals for a European approach to AI*".

2. Brief summary of the White Paper

As stated above, the White Paper gives a comprehensive view of where we are on AI in Europe, and states the commitment of the EU Commission to promoting the safe use of AI, attract investments and develop a coordinated approach on this matter.

[1] ONTIER is a global law firm headquartered in London and operating in 14 countries around the world: Bolivia, Brazil, Chile, Colombia, Dominican Republic, Italy, Spain, the United States of America, Mexico, Paraguay, Peru, Portugal, the United Kingdom and Venezuela.
It is a full-service international law firm, with strong expertise in complex corporate and commercial transactions and international commercial disputes.
Innovation and Technology is certainly counted among ONTIER's main areas of practice, which include International Litigation and Arbitration, Corporate Law, White Collar Crime Law, Real Estate Law, Tax Law, Labor Law, Financial Law and Capital Markets, Family Law, IT & IP, Insolvency and Restructuring and Public Law, Energy, etc..

The main objectives of the EU Commission are:

- **a.** to achieve an "*ecosystem of excellence*";
- **b.** to create an "*ecosystem of trust*"; and
- **c.** to avoid regulatory fragmentation and create a solid, uniform, safe and reliable world for AI to thrive.

With the "*ecosystem of excellence*", the Commission imagines a European Union where AI is utilized both in the private and public sector, where investments are made to support the development and uptake of AI and where all stakeholders (private, including SMEs, public and individuals) can benefit from the adoption of AI in their own areas.

The concept of "*ecosystem of trust*" deals with the need to address and eliminate the risks arising from the entrance of AI into everyone's everyday life. According to the EU Commission (and, as reiterated herein by ONTIER), such "*ecosystem of trust*" may be reached by creating a uniform European regulatory framework that, on one side, takes into consideration – among others – fundamental rights, consumer protection, product safety and liability rules, and, on the other, does not impede AI from thriving.

In this respect, the EU Commission believes that new regulation should be adopted by using a risk-based approach, that provides for, a prior evaluation of the risks arising out of a certain application of AI and a proportionate regulatory intervention: only those application that reveal a level of high risk "*in light of what is at stake*" should be subjected to specific requirements proposed by the EU Commission.

In turn, those applications of AI that do not qualify as high risk, could easily be adopted, or pre-verified by allowing the relevant economic operator to make itself subject, on a voluntary basis, to a labelling scheme.

Finally, another objective of the EU Commission is to avoid regulatory fragmentation among the Member States: the avoidance of fragmentation could lead, according to the EU Commission's opinion, not only to less uncertainty and a more uniform application of the regulation, but also to much more self-awareness among all economic operators involved and easier enforcement of the applicable regulation.

3. ONTIER's comment on the White Paper

In principle, ONTIER fully agrees with the vision of the White Paper and all of the ideas, aspirations and instructions contained therein.

With this short comment, we wish to deeper analyze certain aspects mentioned in the White Paper and propose certain ideas to reach the excellent, safe, trustworthy and universal use of AI pictured by the Commission.

Section 2
AI AS AN EXCEPTIONAL AND GLOBAL ISSUE

1. AI is exceptional and global

It is known that AI has become – and is becoming more and more each day – the focus of many discussions aimed, in particular, at finding the best approach from a regulatory standpoint.

That is, in our opinion, because AI is undoubtedly an exceptional and global technology.

The concept of AI as an exceptional technology is brilliantly described in Jacob Turner's book "*Robot rules: regulating artificial intelligence*", where a technology is defined, by AI law expert Ryan Calo, as exceptional when "*its introduction in the mainstream requires a systematic change to the law or legal institutions*"[2].

Given the many debates that AI has stimulated since its very first introduction, we cannot think of a more appropriate definition of its exceptional character.

2. Exceptionality of AI

Regarding AI, we believe that its "exceptionality" can be attributed to two factors: (1) it is able to make moral decisions and (2) it is able to develop independently.

Although it is widely known that AI is capable of making decisions autonomously (which means that AI is capable of favoring certain "principles" rather than others), it is also true that such decisions may concern "moral choices". Therefore, it is essential to understand how all such choices are made in order to provide proper regulation.

The other attribute that qualifies AI as exceptional is its ability to develop independently. This attribute comes from AI's ability to learn from data without the intervention of programmers, and to improve itself in ways that are not just copies of the original program. These forms of learning indicate the ability to develop independently of human input, and to achieve complex goals. Just like humans do.

As relevant, is its ability to anticipate change in accordance with the reference rules. This is particularly important, considering that the ability to make decisions based on a system of rules and standards is what distinguishes an agent from an entity. Which sets AI even closer to humans.

In light of the above, AI – just like humans – can (i) act morally; (ii) learn beyond the program, and (iii) anticipate changes unexpectedly.

Thus, AI calls for "*a systematic change to the law or legal institutions*" (as provided Ryan Calo's definition of exceptional technology).

[2] "*Robot Rules: regulating Artificial Intelligence*", Jacob Turner, Springer International Publishing 2018, pag. 64.

3. AI as a global issue

The other key feature of AI is that it is increasingly emerging as a global technology, not bound by geographical and/or jurisdictional boundaries.

In the introduction to Jerry Kaplan's book, "*Artificial Intelligence, Guida al futuro prossimo*", Andrea Prencipe notes that "*AI is an integral part - and probably constitutes the culmination - of the digital revolution, which does not end in the technological field as it innovates and it transforms the world of business and economics and induces a series of transformations also at an institutional and cultural level*"[3].

The digital revolution is transforming the world. A world based on interconnection. Connectivity has become the foundation of global society and, has triggered a cognitive revolution whereby we consider globality the new standard condition of life[4].

The definition of global technology, concerns a number of issues, in particular, the impact on the global economy, the interests that major world powers are developing and the use of these technologies to address global problems.

Above all, the global nature of AI raises the need for common regulations at a global level.

Although strong differences can still be found between Member States' internal regulations, in terms of AI, we are of the opinion that common regulations should adopted, so as to make the regulation of AI as global as possible, including – where appropriate – brining in, other non-EU States into the discussion.

Also, it is clear that we are moving from a single dominant economic pole to a situation of multipolarity[5]: the development of AI is becoming every day more crucial, as the world economy radically changes from a classical economy to a technological one. It is true that, so far, AI is mainly benefiting higher skilled workers, but in the future, it is clear that AI will also benefit professional and ordinary workers. That is why we cannot avoid to think of AI as a transformative public good[6].

In the words of IBM's CEO: "*AI will have a 100% impact on jobs, professions and industries*". AI is "global" in the very sense of the word.

Moreover, it is global because it can be used to address major global problems.

In the light of the above, we believe that AI shall be dealt with homogeneously from a global legislative perspective.

Although it may seem too much to ask, there are various examples of this approach, including

[3] "*Intelligenza Artificiale, Guida al futuro prossimo*", Jerry Kaplan, Luiss, pag. 12.
[4] "*Connectography*", Parag Khanna, Fazi Editore, 2016, pagg. 517-520.
[5] *"AI & Global Governance: How AI is Changing the Global Economy"*, Daniel Wagner, United Nations University Centre for Policy Research 2018
[6] *"AI & Global Governance: Artificial Intelligence for All – A call for Equity in the 4th Industrial Revolution"*, Tess Posner United Nations University Centre for Policy Research 2018

supranational activities such as the International Telecommunication Union, and specialized agencies such as the United Nations and the Human Rights Council, which discussed the implementation of AI on human rights. These give us starting points to help establish a uniform view on the subject.

Nevertheless, huge steps forward must still be taken.

Section 3
STIMULATING AI INVESTMENTS IN THE EU

1. The run for investments

According to a study on the impact of AI, by 2030 the Global GWP regarding AI is set to reach 15.7 trillion Dollars[7]. Likewise, the irruption of automated 'intelligent' technology in day-to-day business will significantly increase productivity in all market sectors, ultimately benefitting the global economy and consumers.[8]

In 2016, Asia invested between EUR 6.5 and 9.7 billion in AI; North America's investment revolved around EUR 12.1 to 18.6 billion. The EU, in turn, achieved just EUR 2.4 to 3.2 billion from the private sector[9], a substantially low figure, in comparison.

Considering the potential that AI has on the world to come, we believe the EU Commission should find new and creative ways to bridge this gap, ensuring that the next multiannual financial framework 2021-2027 and Horizon Europe program is more AI-oriented, and achieves the EUR 20 billion per year investment goal.

In light of the above, it is our opinion that the EU Commission cannot lose the chance to step up investments in order to benefit from AI. In order to do so, the EU Commission should not only look at how the US and China are investing (the countries which according to some studies[10] are set to benefit the most from AI), but also at how other potential competitors in the AI sector are investing. We believe that having this broader picture of the worldwide AI arena could help in identifying specific opportunities and initiatives to attract investors and boost the EU's technological and industrial capacities and AI uptake across the economy.

2. How non-EU countries are investing in AI

Investments in AI by non-European countries could be divided in five main areas: (i) Governmental structure reforms to integrate AI; (ii) Governmental investment in AI initiatives; (iii) incentives to research; (iv) promotion of innovation centers (digital hubs, ecosystems, etc.); and (v) technology testing mechanisms, ensuring legal compliance in the absence of specific AI regulation (regulatory sandbox).

2.1 Governmental structure reforms to integrate AI

To adequately prepare, as well as to ensure future investments, countries that are aware of the changes AI is set to bring, are already investing in modifying their governmental infrastructure to ensure it matches and to familiarizes themselves with AI. For instance, the US wants to transform its US Department of Energy into a leading AI institution[11]. Other countries are creating expert AI

[7] "*Exploiting the AI Revolution. What's the real value of AI for your business and how can you capitalise?*", *PwC's Global Artificial Intelligence Study, 2018.*
[8] *See note 7.*
[9] *European Strategy for AI, European Commission Com. 25.04.2018, n. 237.*
[10] "*Exploiting the AI Revolution. What's the real value of AI for your business and how can you capitalise?*", *supra.*
[11] "*About the Artificial Intelligence and Technology Office*". US Department of Energy. www.energy.gov

committees within their current governmental structure (Canada) to ensure governmental professionalization and familiarization with AI[12].

2.2 Governmental investment in AI initiatives

Governmental investment in AI initiatives should also be regarded as essential. The UK government, for instance, has invested a billion pounds in a private sector deal "*to create a country with world class digital capabilities*"[13].

On the other hand, Canada has developed a program in which companies may qualify "*to provide Canada with responsible and effective AI services, solutions and products*"[14].

Governmental AI incentives maximize investment opportunities, offering researchers, developers and other AI stakeholders attractive nation-wide ecosystems to further pursue their activity in a given territory.

2.3 Incentives to research

Research is also an important area of investment for non-European countries. Attracting academics and developing experts is crucial for a country to be well positioned within a given sector.

Countries are aware of the benefits that the development of an attractive research arena could imply in terms of obtaining an AI competitive advantage.

In this respect, China has partnered with Baidu to establish a laboratory for deep learning practices[15], whereas countries such as Australia are developing programs to develop future AI generations, focusing on schools[16], among others.

2.4 Promotion of innovation centers

Moreover, and as a response to the irruption of startups with ambitious projects that lack sufficient resources, countries are opting to create digital hubs through governmental institutions and agencies as means to attract said entities. Hubs promote rapid (accelerated) business growth, encouraging investment. Hubs also allow institutions to acquire substantial expertise on the main innovations that affect a particular business sector.

2.5 Technology testing mechanisms to ensure legal compliance

Likewise, countries such as South Korea or the UK are opting for the establishment of regulatory sandboxes as means to further attract investment. Regulatory sandboxes, as hubs, aim at providing states with an insight into technological innovations.

However, unlike hubs, the aim of a regulatory sandbox is not to attract business by providing incentives, but rather to ensure legal certainty by guaranteeing an adequate legal framework in relation to a particular technology.

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[12] "*Canada announces advisory council on Artificial Intelligence*". Jaclin Cassios, Dentons Data http://www.dentonsdata.com/canada-announces-advisory-council-on-artificial-intelligence/

[13] AI Sector Deal Policy Paper. Department for Business, Energy, & Industrial Strategy and Department for Digital Culture Media & Sport. https://www.gov.uk/government/publications/artificial-intelligence-sector-deal/ai-sector-deal

[14] List of pre-qualified suppliers for opportunities in Artificial Intelligence. Public Works and Government Services Canada. https://buyandsell.gc.ca/list-of-pre-qualified-suppliers-for-opportunities-in-artificial-intelligence

[15] National Engineering Laboratory for Deep Learning. OECD Policy Observatory. https://oecd.ai/dashboards/policy-initiatives/2019%2Fdata%2FpolicyInitiatives%2F16868

[16] Support for science, technology, engineering and mathematics (STEM). Australian Government. Department of Education, Skills and Employment. https://www.education.gov.au/support-science-technology-engineering-and-mathematics

3. What is the EU planning to do to stimulate investments

According to the White Paper, the EU Commission is planning to stimulate investments by substantially following the same guidelines that other non-EU States are following.

By way of example, we appreciate that the White Paper gives adequate attention to: (1) measures that attract both SMEs and larger entities to the European AI framework, (2) create and establish digital hubs in Member States that provide startups with access to cutting-edge- facilities, (3) further develop their AI solutions and (4) invite larger technological entities to collaborate with European hubs. These entities can provide relevant expertise and technological solutions to enhance hub efficiency, in exchange for being in contact with startups with novel AI solutions.

Researchers and academia could also be invited, so as to provide them with the practical resources needed to boost their investigations.

We also believe the implementation of regulatory sandboxes could be a valid response to the legal uncertainty surrounding AI.
Indeed, these types of solutions are becoming increasingly more common in EU Member States, especially in the financial sector, as they provide for new ways to embrace AI and its many advantages. Researchers could form an intrinsic part of sandboxes, as a way to both test their investigation results and collect more information on how to further develop their works on AI.
In any case, and if successfully implemented at a Member State level, regulatory sandboxes would thrive if coordinated at the European level[17], to ensure uniformity with EU law and prevent unequal investment opportunities in Member States.

The EU Commission is also taking into consideration accelerating investments in AI by making available EU subsidies for the development of AI in Member States in the short-term, but in this respect, it would be advisable for EU Member States to introduce fiscal advantages for AI investments.

Preventing taxation inequalities among Member States also appears to be a priority of the EU, which may evaluate issuing recommendations to harmonize and call for tax equality to avoid disparities in AI investment among Member States.

Lastly, it is worth conceiving a better coordination effort between all EU initiatives currently in place, such as the Digital Innovation Hubs, Digitizing European Industry Initiative, Digital Europe Program and Pan-European Venture Capital Fund of Funds and the main EU institutions. Investment initiatives should be aligned with Member States initiatives to impede duplicating costs in promoting AI in Europe.

[17] ESBGs White Paper on Innovation Facilitators. ESBG, May 2019. Pages 2-3

Section 4
THE DIGITAL TRANSFORMATION OF JUSTICE AND THE LEGAL SECTOR

1. The need for economic investment in the legal sector

The legal sector has traditionally been characterized by its aversion to change based on voluminous documentation and services delivered on a one-to-one basis. Thus, while in other areas the introduction of innovative technological solutions has been more forth coming, the characteristics of the legal sector and especially its rights-guaranteeing nature have led to the adoption of a conservative position with regard to the implementation of new technologies and the modernization of its systems[18].

These circumstances add up to a lack of government investment in digitalization, affecting four fundamental areas: the judicial system, legislator, lawyers and law firms, and college education.

Nevertheless, the use of AI in the legal sector has become increasingly a topical issue: in 2018 the European Commission itself adopted a Communication on Artificial Intelligence for Europe[19], which highlighted the importance of investments in key application areas such as public administration, including justice.

Regarding investments in the judicial system, the 2019 EU Justice Scoreboard[20] states that there are still major differences on the expenditure on law courts among Member States, both in euros per inhabitant and as a percentage of Gross Domestic Product (GDP).

Besides, Member States have not prioritized increasing their budget for the legal sector, but rather use historical or actual cost basis for determining the resources to be allocated to the judiciary.

This suggests that it is necessary to increase investment in the judicial system.

Regarding the already practicing and future lawyers, the current legal environment implies a change of paradigm as compared to previous generations of jurists. Nowadays, lawyers have to deal with a digitalized reality where documents are electronic, crimes are committed through the Internet and evidence is available, in many cases, exclusively by technological means as a consequence of purchases made on the Internet, electronic communications, electronically signed contracts and a myriad of other instances of use of new technologies.

In addition, we must consider the importance of using AI software that allows us to dynamically access jurisprudence, precedents, as well as doctrine that can be applied to legal cases, review large sets of documents, draft procedural documents, litigate and automate identical or comparable processes[21].

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[18] "*The Future of the Professions: How Technology Will Transform the Work of Human Experts*", Richard Susskind and Daniel Susskind, OUP Oxford, pag. 67.

[19] "*Communication on Artificial Intelligence for Europe (COM(2018)237final)*", European Commission, 2018.

[20] Report elaborated the European Commission aimed at helping EU and Member States to improve the effectiveness of their national justice system through the analyses of three parameters: quality, independence and efficiency of judicial systems in all Member States.

[21] "*Thoughts on Legal Tech and Digitalization*", Markus Hartung, Derecho Digital e Innovación, No 3, Sección Doctrina, Tercer trimestre de 2019, Wolters Kluwer, LA LEY 14363/2019, pag 10.

In this regard it is important to point out the use in our sector of the so-called "*document assembly systems*", which allow lawyers to generate high-quality legal documents after introducing certain information into the software [22].

Finally, it is fundamental to consider that the legislator who creates the rules must adapt them to the current situation, and most of all to the technological revolution that we are currently experiencing. To do so, it is essential that professionals specialized in new technologies participate in the decision making process: furthermore, the legislator should massively invest in the training and recruitment of these technical profiles.

With that said, it is undeniable that in order to implement a harmonized legal environment in the EU, certain funds should be allocated to the Member States to enable them to modernize their entire legal ecosystem by using new technologies and AI. Without these funds, we cannot guarantee that all governments have the necessary resources to invest in this endeavour, and there may be a risk of creating inequalities among the legal sectors of the different Member States.

At the same time, creating and developing a new class of jurists (such as judges, lawyers, etc.) specialized in AI is of paramount importance, since only skilled professionals could guarantee the correct application and adequate evaluation of all aspects and peculiarities that AI implies.

2. The use of AI technologies in the judicial system

Currently the EU has no court in Member States, using predictive technology solutions to make judgments based on AI software, unlike countries such as the United States, which use software based on AI for this purpose, i.e. Correctional Offender Management Profiling for Alternative Sanctions (COMPAS).[23]

The use of AI as a method of imposing sanctions has been highly controversial due to the opacity of the underlying algorithm which can be based on criteria such as race, gender, religion or social factors, leading to discriminatory and unconstitutional results.[24]
A fair trial and equal rights for the parties of a trial must be the guiding light, also in a fast-developing world where technology is becoming more and more important and helpful: the most difficult challenge is combining agile and fast procedures with fairness and constitutional guarantees.

Nevertheless, using new technologies and AI is essential to help judges carry out administrative and case-management tasks, and to create a system that would enable decisions to be drafted on the basis of templates that would save time and effort for judges, developing a more efficient justice system that is better poised to cope with the increasing workload of courts and tribunals.

Although predictive AI systems may be risky for fundamental rights of citizens, it is likewise true that AI can be put to various other uses. For example, some of the simplest judicial procedures could be

[22] See note 18, pag. 69.
[23] "*Hacia la implantación de la inteligencia artificial en nuestro sistema judicial*", Susana Ortiz Hernández, Imma Garrós Font and Mª Nuria, Romera Santiago, Revista Aranzadi Doctrinal num.3/2020, pag. 1.
[24] See note 23, pag. 5.

solved online through methods of Online Dispute Resolutions[25] or, use secure systems that allow the development of hearings by videoconference. In addition, artificial intelligence systems could be implemented to serve as a tool for judges to access greater knowledge, both theoretical and jurisprudential, in order to make better and swifter decisions, reduce errors in judgments (which occur especially in courts that are not subject-specialized) and allow for the preparation of legal documents with greater efficiency.

Currently, these models are being developed outside the EU[26], so we believe that it is important that those actions taken by the EU Commission provide financial support to European legal tech developers and start-ups that are bringing this type of projects forward and that allow the EU to be at the forefront of technological progress also in the legal sector.

For that purpose, the EU Commission for the Efficiency of Justice (CEPEJ) elaborated the European Ethical Charter on the use of Artificial Intelligence in judicial systems and their environment, where guidelines on automated processing of decisions and judicial data based on artificial intelligence are set forth.
This document establishes five principles that must be looked at in order to develop AI tools to be applied to the judicial system:

(i) Principle of respect for fundamental rights: design and AI services must not infringe fundamental rights.

(ii) Principle of non-discrimination: any discrimination between individuals or groups of individuals must be avoided and prevented.

(iii) Principle of quality and security: with regard to the processing of legal files, decisions and data, relating to using certified, reliable sources and always working within a secure technological framework.

(iv) Principle of transparency, impartiality and fairness: processing of data must be made in accordance with the principle of transparency and external audits must be performed.

(v) Principle "under user control": aiming to ensure that users are properly informed and have control over their actions.

Aside from this principles, it is anyway clear that every development on AI made in the context of the EU must comply with the Charter of Fundamental Rights of the European Union, the European Convention on Human Rights (ECHR), and all the rules and regulations affecting the developments [27].

[25] See note 18, pag. 70.
[26] PROMETEA Software of Artificial Intelligence aimed at streamlining and optimizing bureaucratic processes in all types of organizations developed by the Public Prosecutor's Office of the City of Buenos Aires and the Law School of the University of Buenos Aires. For more information, consult https://ialab.com.ar/prometea/
[27] "*European ethical Charter on the use of Artificial Intelligence in judicial systems and their environment*", European Commission for the Efficiency of Justice (CEPEJ). Adopted at the 31st plenary meeting of the CEPEJ (Strasbourg, 3-4 December 2018). https://rm.coe.int/ethical-charter-en-for-publication-4-december-2018/16808f699c

The use of AI technology in the legal sector stands as a fundamental step for keeping up with global developments and non-EU States. This is why great investments are advisable to reach this aim, without forgetting the rule of law and the protection of human rights that has always characterized the European approach: a global challenge that the EU can win with strong foresight and clear rules.

Section 5
ALGORYTHMS, AI AND THE LAW

1. New challenges for the law

As discussed, AI is an exceptional technology because its introduction in the mainstream market requires a systematic change to the law or the legal institutions.

For a better understanding of the statement above it is necessary to explain how the algorithm leads to AI. The algorithm is a logical process, a sequence of operations aimed at solving a given problem, by making decisions. These decisions, even if they are implemented through software, can ultimately be imputed to a primarily human assessment. But we are increasingly moving towards self-directed and self-adapting activities in case of systems that, without any human intervention, perform activities that previously required human intelligence and the ability to evaluate and judge (such as, for example, driving a car).
In this case we are "*beyond the algorithm*" and we are speaking of AI.

These systems are able to operate at very high speed and manage huge amounts of data, far beyond what is humanly possible.

Software and algorithms have gained much attention "*under the premise that they exercise power over us because they select what information is considered most relevant to us, a crucial feature of our participation in public life, are powerful entities that govern, judge, sort, regulate, classify, influence, or otherwise discipline the world, and are black boxes*"[28].

The activity of such systems must, firstly, be carried out for socially valuable purposes, and secondly cannot be opaque. Therefore, such systems must be controlled to avoid illegal or inappropriate decisions.

New challenges arise for the law.

2. *"Controlling the algorithm"*: two decisions from the Italian Consiglio di Stato. The decision "State of Wisconsin v. Loomis" (2016)

Two decisions by the Italian Consiglio di Stato in 2019[29],have elaborated three principles that must preside over the examination and use of algorithm-based or intelligent computer systems:

- **a)** the principle of "knowability" and comprehensibility: everyone has the right to know when he/she is subject to automated decision-making processes, and to receive significant information on the logic used;
- **b)** the principle of non-exclusivity of the algorithmic decision: the right of a person, against whom an automated decision is taken, to have a human contribution in the decision-making process capable of controlling, validating or denying the automated decision (so-called "*Human in the Loop*");

[28] "*Trust But Verify: A Guide to Algorithms and the Law*", Deven R. Desai and Joshua A. Kroll, Harvard Journal of Law and Technology, Vol. 31, pag. 6.
[29] Consiglio di Stato, Decisions n. 2270, April 8th, 2019 and n. 8472, December 13th, 2019.

c) the principle of algorithmic non-discrimination: a visible and understandable algorithm, in which a decision is not exclusively grounded, must not act in a discriminatory way.

In the same sense the Supreme Court of Wisconsin, in the case "State of Wisconsin v. Loomis" has decided that "*a circuit court must explain the factors in addition to a COMPAS (a system based on an algorithm) risk assessment that independently supports the sentence imposed. A COMPAS risk assessment is only one of many factors that may be considered and weighed at sentencing*"[30].

3. ***Ex ante* and *ex post* review of intelligent systems**

Once understood the need to verify the correct functioning of AI opaque systems, the verification could take place – as proposed in "The Sir Henry Brook Lecture for BAILII"[31] – both *ex ante* and *ex post*.

The *ex ante* verification could be entrusted to a technical commission composed of IT experts, lawyers and ethics scholars.
"*The commission could be given access to commercially sensitive code on strict condition that its confidentiality is protected. However, it would invite representations from interested persons and groups in civil society and, to the fullest extent possible, it would publish reports from its reviews, to provide transparency in relation to the digital processes*"[32].
The *ex post* verification would take place in court, where issues such as, for example, the disclosure of the code or the algorithm (as occurs in cases involving intellectual property or competition cases), through the appointment of experts by the judging courts take place.

"*The ex ante measures should operate in conjunction with ex post measures. How well a program is working and the practical effects it is having may only emerge after a period of operation. There should be scope for a systematic review of results as a check after a set time, to see if the program needs adjustment*"[33].

In any case, this confirms the need for new skills on the part of lawyers and judges in the AI field, and for a new team-work model, where technological, legal and ethical abilities merge.

It is a cultural revolution.

[30] Supreme Court of Wisconsin, State of Wisconsin v. Eric L. Looms, pag. 49 par. 99.
[31] "*Algorithms, Artificial Intelligence and the Law*", The Sir Henry Brooke Lecture for BAILII, pag. 10.
[32] See note 31, pag. 11.
[33] See note 31, pag. 13.

Section 6
A FEW WORDS ON HOW TO CREATE AN ECOSYSTEM OF TRUST

1. <u>The need for a unified European Regulation</u>

We fully agree with the European Commission regarding the need for a common European regulatory framework for AI. Indeed, left to their own devices, Member States may develop divergent national rules which can hinder the development of AI throughout Europe's single market, and thus diminish the competitiveness on global markets.

In this respect, we concur particularly with the approach of the German Data Ethics Commission, according to which the regulation of AI should range between no regulation, for the most innocuous Artificial Intelligence tools, escalating to stricter restrictions corresponding to high-risk AI systems.[34]

In the light of the above, we believe that national legislation or the use of instruments such as EU Directives may be well suited for regulating inoffensive or low-risk AI applications, while the regulation of those AI systems deemed to be "high-risk" would require a strong and coherent regulatory framework throughout the EU. This common safeguard would preferably be achieved by means of Regulations, in line with what has been done, for example, with the EU Regulation 2016/679 – General Data Protection Regulation ("GDPR").

We are of the opinion that the very developments which substantiated the need for a common regulation on the protection of personal data may also be applied to AI, as the European Commission associates to those phenomena similar concepts: (i) the respect of the fundamental rights and freedoms of natural persons[35]; (ii) the design of such technologies to serve mankind[36]; (iii) the challenges associated with rapid technological developments and globalization[37]; (iv) the need for creating trust and providing control for European citizens[38]; and (v) the provision of legal and practical certainty for civil society, economic operators and public authorities[39].

In order to provide a European environment of trust, legal and practical certainty, as well as to adequately safeguard the rights of citizens and economic operators, the creation of new supervisory authorities for the review and scrutiny of the implementation of AI initiatives within the EU could certainly be advisable. As advocated in The Sir Henry Brook Lecture for BAILII, such authorities should be comprised by IT and security experts, lawyers and ethicists, and constitute a public resource for European governments, courts, and the general public[40].
This further confirms the need for a class of specialized jurists, as previously stated.
The implementation of national public supervisory authorities and a new European AI Board will help

[34] "*Opinion of the Data Ethics Commission*" Daten Ethik. Commision 2019, p.177.
[35] Recitals 1-2 GDPR.
[36] Recital 4 GDPR.
[37] Recital 6 GDPR.
[38] Recital 7 GDPR.
[39] Recital 7 GDPR.
[40] See note 31, pp. 11-12.

monitor the correct implementation of these technologies in the EU, and guarantee that European AI legislation is consistently applied by all EU Member States.

It is also of the upmost importance that specialized courts are created, both at the national and European level, as to ensure that all legal operators within the EU possess the necessary expertise to deal with the upcoming judicial challenges regarding AI.
In this context, it is surely interesting to take into consideration what other states outside of Europe have done, and are planning to do.

2. The US experience

As we all know, US has been at the forefront in the development of this field, and has taken some initiatives to enforce its leadership in AI, especially by devising a strategy which focuses on the following areas: investment in AI research and development; unleashing AI resources; setting AI governance standards; building the AI workforce; international engagement and protection of the US AI advantage[41].

In particular, President Donald Trump – who was the first US President to specifically name AI as an Administration R&D priority in his 2019 Budget Request to Congress[42]– has expressed the necessity that AI Governance Standards are set up by Federal agencies which, as part of the American AI Initiative**,** will foster public trust in AI systems by establishing guidance for AI development and use across different types of technology and industrial sectors.
This guidance will help Federal regulatory agencies to develop and maintain approaches for the safe and trustworthy creation and adoption of new AI technologies.
This initiative also calls for the National Institute of Standards and Technology (NIST) to lead the development of appropriate technical standards for reliable, robust, trustworthy, secure, portable, and interoperable AI systems.

Furthermore, to improve the coordination of Federal efforts related to AI, the White House chartered a Select Committee on AI under the National Science and Technology Council. The Select Committee consists of the most senior R&D officials across the Federal government, and represents a whole-of-government approach to AI R&D planning and coordination. This Committee advises the White House on interagency AI R&D priorities; considers the creation of Federal partnerships with industry and academia; establishes structures to improve government planning and coordination of AI R&D; identifies opportunities to prioritize and support the national AI R&D ecosystem.
The Select Committee also provides guidance and direction to the existing Machine Learning and AI Subcommittee, which serves as the operations and implementation arm of the committee[43].

Moreover, the US is also enforcing a structured plan, the "*Federal Data Strategy Action plan*", which consists of 16 fundamental action steps to be taken and implemented before the end of 2020.
This plan's goal is to align existing efforts and establish a firm basis of tools, processes and capacity to leverage data as a strategic assets[44].

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[41] *Accelerating America's Leadership in Artificial Intelligence*", www.whitehouse.gov.
[42] "*The national Artificial Intelligence research and development strategic plan:2019 update*", www.nitrd.gov.
[43] "*IA Policy-United States*", www.futureoflife.org
[44] "*Federal Data Strategy Action Plan*", Oecd.ai Policy Observatory.

3. The Russian experience

Another interesting experience given by a federal country which underlines the importance of a "*Central Government Framework*" in AI matters is the one of Russia.
On October 2019, the President of the Russian Federation Vladimir Putin adopted Decree no. 490 "*On the development of artificial intelligence in the Russian Federation*" with the clear aim to implement a "*National Strategy for AI Development*".
This Strategy will serve as the basis for the development and enhancement of the federal states' programs and projects.
In this respect, the Central Government approved a list of instructions aimed to guide the action of the federal states in order to implement the "*Digital Economy of the Russian Federation*" through a "3 years- action plan"[45].
Moreover, in 2020 Russia drafted a Federal plan to remove legal national barriers to developments in the use of robots[46].

Being federal states, US and Russia serve as examples for the implementation of greater uniformity at the European level in such an important matter as AI[47].

4. Achieving a European ecosystem of trust

In conclusion, in order to accomplish a system of trust in which the EU is able to lead the global forefront of the development and implementation of AI, it is important to focus on adopting a strong and coherent regulatory framework throughout the EU.

As can be ascertained, federal countries know the strengths of implementing unified legislation regarding AI: said countries have chosen to follow uniform strategies despite their internal differences.

Therefore, we are of the opinion that the EU should implement a common safeguard Regulation regarding those AIs deemed to be high-risk and thus more impactful to society. Additionally, the implementation of national public supervisory authorities and a new European AI Board will contribute to ensure that this Regulation is closely followed, and a common European approach to AI, necessary to reach sufficient scale and avoid the fragmentation of the single market.

[45] "*Federal projects aimed at the implementation the national strategy for the development of the technology in the field of artificial intelligence in the Russian Federation*", Oecd.ai, Policy Observatory.
[46] "*Conceptual framework for the regulation of artificial intelligence and robotics till 2023*", Oecd.ai, Policy Observatory.
[47] We should also underline that China, even if it's not a federal country, may be an inspiration for growing in the Ai matter; indeed it has stepped into a fierce competition with the US for the dominance in AI. In particular, China has been growing with a "three steps" dynamic plan, which provides ambitious goals to be achieved, such as reaching "world-leading" in some AI fields by 2025 and becoming the "primary" center for AI innovation by 2030. To achieve such goals China has been confirming the strategic importance of the central government in identifying the priorities and providing important indications to local administrators ("*The Next Generation for Artificial Intelligence plan*", Oecd.ai Policy Observatory).

Section 7
FINAL CONCLUSIONS

1. AI is an exceptional and global technology, which will greatly impact our world's society and economy. Thus, it warrants the most global approach feasible, adopting a uniform legislative view whenever possible.

2. The EU should stimulate investments to foster the development and use of AI in Europe, to become a reference of excellence in AI, a lighthouse center of research, innovation and expertise, and to provide SMEs, researchers and academia with access to means for understanding and using AI. This can be achieved by establishing digital hubs to boost company growth, creating EU-coordinated regulatory sandboxes to provide developers and entrepreneurs with sufficient legal certainty regarding AI-oriented solutions and by granting EU subsidies to Member States for the development of initiatives and infrastructures with the objective of fostering a competitive ecosystem with cutting-edge facilities that integrate and welcome AI.

3. It is necessary to increase investment to create and develop a new class of jurists (such as judges, lawyers, etc.) specialized in AI, fostering a new team-work model, where technological, legal and ethical abilities merge. Skilled professionals, combined with legal tech AI tools, could grant improved efficiency, precision and swiftness to the EU-legal sector. In any case, the use of AI within the European framework should depend on compliance with the principles of respect for fundamental rights; non-discrimination; quality and security; transparency and "user under control".

4. The activity of AI systems must be controlled in case of unlawful or inadequate decisions. This challenge can be solved by *ex ante* and *ex post* verification of AI opaque systems, by means of a technical commission composed of IT experts, lawyers and ethics scholars – for the former – and through the appointment of experts by judging courts –regarding the latter –. This again confirms the need for a new class of jurists, as detailed above.

5. It is necessary to avoid regulatory fragmentation, to create a solid, uniform, safe and reliable world for AI to thrive and to achieve an "*ecosystem of excellence*" and an "*ecosystem of trust*". Hence, the EU should adopt a common European regulatory framework for AI, necessary to reach sufficient scale and avoid the division of the single market. The adoption of this framework should be accompanied by the implementation of national public supervisory authorities and a new European AI Board, in order to ensure Member State compliance with the common regulatory framework as well as securing decision uniformity and supervisory authority cooperation and respect of mutual assistance across the Union.

In conclusion, AI is a cultural revolution, and it requires a legislative revolution.

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