

ETHICAL AND LEGAL ASPECTS OF THE DEVELOPMENT AND USE OF ROBOTICS AND ARTIFICIAL INTELLIGENCE. PROTECTION OF HUMAN RIGHTS IN THE ERA OF GLOBALIZATION AND DIGITISATION

Lecturer Ramona DUMINICĂ, PhD.

Faculty of Economics Sciences and Law, University of Pitești, Romania
duminica.ramona@gmail.com

Legal advisor Diana Maria ILIE, PhD.

Legal Department, University of Pitești, Romania
dianamaria.ilie@yahoo.com

Abstract:

While humanity has been under the pressure of successive and partially interconnected shocks generated by pandemic, war and inflation, in a geopolitical and geoeconomic context perhaps the most complex in recent decades, the multifaceted fields of artificial intelligence (AI) have seized economic and social life at a very rapid pace. We are going through the so-called "Fourth Industrial Revolution", or are we already talking about a "(r)evolution of AI", which is shaping its supremacy through interdisciplinary and cutting-edge technological advances such as robotics, nanotechnology, biotechnology, quantum computing, fifth generation (5G) wireless technologies, 3D printing, fully autonomous vehicles or the industrial internet of things, with human-machine interaction becoming ever more complex and profound.

Here we step into the "wonderful new world" in which the start was made in the global "race" for supremacy in the field of Artificial Intelligence. Moreover, this global competition is due to the enormous economic value and technological capabilities accumulated in the economies that have allocated a lot of resources for the research and development of AI applications, estimating that by 2030, artificial intelligence would bring 11,000 billion euros to the global economy.

In an era of artificial intelligence, we face more and more questions and perhaps few answers. We all ask ourselves what will be the effects on the structure and functionality of society, how much will human rights be affected and how do we manage to prevent this? Is there a right of AI or not? Will robots replace or judge us? Will we dehumanize, expecting more from robots and less from humans? Will AI change the way we humans work, learn, travel, live? How will the digital revolution change the legal world?

In a timid attempt to search for and outline answers in this maze of questions, we propose that through our research we explore the advantages and disadvantages of AI, the determining technology of the future, touching, on the one hand, the regulatory area, respectively the legal framework outlined at international, but also Union and national level, especially the protection of human rights and equality, and on the other hand, the ethics of artificial intelligence, a critical subject for the whole world. At the same time, our research aims to index the main initiatives, actions and achievements in the field of artificial intelligence, by reference to the official strategies of the member states and beyond, taking into account the long-term development plans and the strategic and political vision in priority areas such as ethics and security.

*Efforts to regulate artificial intelligence have increased lately, on the agenda of the legislators in Brussels today being the AI Regulation (Artificial Intelligence Act), but also a directive on AI liability, thus crystallizing a new institutional architecture of AI regulation in Romania, but also in the other EU member states, through the need to harmonize the domestic legislation with the *acquis communautaire*. Thus, on May 11, the Internal Market and the Civil Liberties Committee of the European Parliament approved, with 84 votes in favor, 7 against and 12 abstentions, a first draft of a Law on artificial intelligence, being perhaps the first "bold" step for the EU regulation of artificial intelligence systems, with the draft to be submitted to the plenary*

of Parliament in June 2023. Given that currently the regulation of artificial intelligence is at a very low level, these rules will become the first binding “legal construction” in the world in terms of artificial intelligence, the European Union legislator aiming to ensure safe, transparent, non-discriminatory and environmentally friendly AI systems that can be kept under control by humans, avoiding the gradual and imperceptible “suffocation” of people’s rights and freedoms by “shaping” the global consciousness. The capitalization of the opportunities generated by artificial intelligence can represent a pivotal point for the economic, but also social and cultural development of Romania, given that we already recognize the profound and dynamic impact on human lives, on the environment, ecosystems, on education, culture, information communication, including on the human mind.

Living among digital assistants (Siri, Alexa, Cortana), autonomous cars, smart cameras with facial recognition or intelligent systems capable of making predictions on future behaviors, we must admit that, in the year 2023, artificial intelligence is a reality, perhaps even a necessity and a way of life installed subtly and imperceptibly in our consciousness and in our behaviour. The future is already here because AI is bringing it faster than we thought, our central objective being the awareness of the need to adapt to the new normal, on the one hand, and on the other, that of promoting a human-centered artificial intelligence, by shaping a stable and transparent legal framework.

We are stepping timidly, but without a way back, into a new legal “realm” open to reflection and practical applications of the most innovative, in which the challenges are proportionate to the stakes created and asserted, artificial intelligence and robotics having enormous potential in human evolution and in improving all areas of human activity, like the great technological revolutions created by man over time.

Keywords: artificial intelligence, robotics, digitisation, ethics, fundamental rights and freedoms, opportunities, risks, legal framework, international vision, Union vision, digital single market, legislative harmonisation.

Artificial Intelligence (AI) – “opening the gates” of an interdisciplinary area. Risks, opportunities and consequences for fundamental rights and freedoms

The Organization for Economic Cooperation and Development (OECD) defines the artificial intelligence system as “a machine-based system that is capable of influencing the environment by producing an output (predictions, recommendations, or decisions) for a given set of objectives. It uses machine and/or human-based data and inputs to (i) perceive real and/or virtual environments; (ii) abstract these perceptions into models through analysis in an automated manner; and (iii) use model inference to formulate options for outcomes.” [1] Thus, we find artificial intelligence systems in the form of software, namely virtual assistants, image analysis software, search engines, voice and facial recognition systems, or systems integrated to objects, such as robots, autonomous cars, drones, Internet of things, etc. In the second section we will analyze the much more extensive and flexible definition proposed at European Union level by the European Commission, as the concept is still under interpretation.

The fact is that to date there is no universally accepted definition of AI. For example, according to the high - level Expert Group on artificial intelligence of the

European Commission (HLEG) “Artificial intelligence (AI) refers to systems that display intelligent behaviour by analysing their environment and taking actions – with some degree of autonomy – to achieve specific goals. AI-based systems can be purely software-based, acting in the virtual world (e.g. voice assistants, image analysis software, search engines, speech and face recognition systems) or AI can be embedded in hardware devices (e.g. advanced robots, autonomous cars, drones or Internet of Things applications)”. [2] Indeed, AI technologies have existed for over 50 years, but increasing computing power, the availability of enormous amounts of data and new algorithms have led to major advances in AI in recent years.

Although information and communication technology “invaded” all aspects of our lives, artificial intelligence (AI) [3] is still a sensitive subject, perceived and assimilated so unevenly and differently, sometimes abstractly, among the population. If we look around, we will find that AI is everywhere and in everything, it has developed on all levels, and the developments of the last years marked by the Covid_19 pandemic have “disclosed trivially” its supremacy and true potential, so we are currently talking about a transposition into interdisciplinary models of analysis. We find, thus, that AI has acquired complex valences, from the socio-economic, to the political and legal ones, materializing in a multitude of actions, strategies, regulations, which require, on the other hand, the promotion of trust and the provision of an ethical, legal, security and dialogue framework. The fact is that AI will exert its influence on sectors and areas that we currently do not even think about, generating real transformations, alterations of society and industry. We are at a stage where society seems to delegate more and more aspects of thinking to technology, and paradoxically, the greater the digital capacity of a society, the more vulnerable it becomes. Let us not forget, however, that AI is not endowed with human emotion, critical thinking or morality, no matter how great the tendency to reproduce human behaviour would be. That is why we need a regulation of ethics in AI, a key landmark of our research, in order to achieve a safe and reliable area.

All these interconnected crises generated by a globalization also in an existential crisis, such as climate changes, trade conflicts between China and the USA, pandemic, the war in Ukraine, followed by the socio-economic crisis “polished” by the effects of the former, represented “a rare and narrow window” of opportunity on the fulminant evolution

of artificial intelligence, reaching the critical *global consciousness* on resetting our world. Moreover, at the most tense moments, a space of aggregation of all the thoughts, ideas and emotions generated by humanity is created, becoming the “engine” of humanity in the age of globalization and interconnection.

In this context, we ask ourselves, what will be the new normal? Will humanity be stronger or more vulnerable? Can AI become a threat to the survival of the human species? How to anchor a “spider” domain like AI, a domain *inter* and *trans* disciplinary, in the sometimes sensitive realities of life, in an ethical, legal, cultural and institutional framework shaped and structured in such a way as to uphold social values and fundamental individual rights? How do we ensure that technology serves society and individuals and how do we protect human rights in the age of AI? Of course, the Question-Answer follows: Why do we need to regulate the use of AI technology? Are we ready for such a transition?

There are numerous legal reactions in various fields to the challenges of AI and attempts are made to coagulate the regulations in this area, which hardly takes shape due to the complexity of the field, French professors-researchers from the University of Paris or Sorbonne anticipating the crystallization of an “*artificial intelligence act*”, a law in its own right, built by virtue of its own principles and institutions of functioning. Thus, in the context in which AI is at such an advanced stage of development that it claims its need for regulation, the French intellectual legal effervescence has entered this new realm open to reflection and renowned academics have joined their thoughts to contribute to a complete presentation of the problems raised by the development of artificial intelligence in the volume “*Droit de l’intelligence artificielle*” [4], areas such as ethics, persons law, liability and insurance law, autonomous vehicles, justice, criminal law, intellectual property, personal data, labour law, health law, military law, administrative decision making and cyber security, blockchain, civilian drones and even international law being touched upon.

We are talking about intelligent machines that work with high-level cognitive processes such as learning and even thinking, problem solving, the ability to make decisions and filter information, AI providing opportunities to complement human intelligence and change the way of life. Such machines have not only transformed and

continue to transform people's day-to-day tasks, but have generated multiple profound questions for individuals, the economy, governance and society at large. We can ask whether these algorithms will be able to detect and provide clues about the opinions, emotions, feelings, personality of people who are simply watching a television station, a computer screen, etc. Such situations do nothing but legitimize an absolute surveillance system of individuals, which would lead to serious damage to people's freedom and rights. We face the enormous risk that any human gesture or behaviour will be supervised and even anticipated, and the world could easily turn into a "dystopia", as author Aldous Huxley foretold almost a century ago in his book "*Brave new world*" [5], a world in which under the appearance of democracy, people live in a real dehumanization by the simple fact that every human desire, thought, aspiration can be annihilated and kept under control.

We need to strengthen a strong global perspective, by developing and implementing legislative instruments and standards that are based and developed around the "hard core" of human rights, through which human dignity has been gained, justice, social and economic development, physical and mental well-being, human diversity, interconnection, education, the right to work, essential elements that can guide the evolution of AI in a responsible direction.

We are already talking about a digital economy, digital rights and even a "digital future", recently adopted under the aegis of the OECD, "*Declaration on a trusted, sustainable and inclusive digital future*", [6] which outlines a vision for a digital transformation centered on the human factor and oriented towards rights, bringing up the themes of the "*Declaration on European digital rights and principles*", [7] proposed by the European Commission and signed by the European Parliament and the European Council. With this declaration, EU leaders affirm that they want to ensure European values by: "Putting people and their rights at the centre of the digital transformation, supporting solidarity and inclusion, ensuring freedom of choice online, fostering participation in the digital public space, increasing safety, security and empowerment of individuals, promoting the sustainability of the digital future".

Moreover, the European Commission has also developed a mechanism for achieving common objectives for *Europe's digital transformation by 2030* [8], a policy

programme that will guide digital transformation, in the sense that digital technologies protect citizens' rights, support democracy and ensure that all digital actors act responsibly and safely, with the EU promoting these values around the world. At the same time, European leaders want to ensure that the digital environment is safe and secure, that citizens can engage in the democratic process at all levels and have control over their own data, but also that digital devices support sustainability and the green transition.

These are only a few positive milestones of digitisation that strengthen the “foundation” of *artificial intelligence law*, there are voices that argue that AI will help humanity overcome its deepest and most complex challenges. If we remain in this optimistic area of opportunities “promised” by AI advocates, in the sense that AI can amplify human intelligence, then we could affirm that a golden age of humanity is coming, with the possibility of eliminating disease and poverty. However, AI can change our lives in a positive or negative way, depending on how we choose to use data and connected technologies. In this regard, the European Parliament established as early as 2020 a commission [9] to assess the impact of technology and to identify and describe the opportunities and dangers of this “ubiquitous” area of the future, with a proposed *Roadmap* for AI in the EU. Thus, the advantages of AI were identified for the economy, which is inevitably moving towards a digital economy, based on digital infrastructure, revolutionising the market for products and services and facilitating access to information, education and training. A digital economy reflects the data economy and its applications, the green and circular economy, optimising sales, increasing the volume and quality of production, improving customer service and saving energy, because AI is not just about robots that will “steal” human behaviour.

Benefits and opportunities have also been identified in the area of public interest, such as strengthening democracy by ensuring access to secure information and avoiding cyber-attacks or facilitating the use of analytical data in the public service sector, but also in areas such as public transport, education, sustainable development, energy or waste management. Let's not forget the possibility of using AI in justice, especially in crime prevention, where crimes or even terrorist attacks can be anticipated and prevented. In fact, there are already online platforms using AI to detect and combat illegal online behaviour. The military is also of major interest, given the possibility of using AI in defence

and attack strategies in hacking and phishing, in vital systems involved in cyber warfare, so that physical harm is reduced.

In any case, in the view of the actors of the European Union's strategies, AI is an essential pillar of the *digital single market strategy*, invoking its fabulous potential to help improve people's lives through better health services, more efficient administration, perhaps safer transport, sustainable agriculture, a green environment, a more efficient use of resources and a much more competitive industry. Let's not forget also the benefits of using robots in surgery or rescue operations in the event of an earthquake or nuclear accident. In fact, Bill Gates predicts that AI will be integrated into all healthcare systems around the world in the future, with robots taking care of the bureaucratic aspects.

In the antithesis of these benefits, however, we bring into discussion the risks of AI on man, on his rights and freedoms, being able to generate and multiply existing prejudices at the level of society. In a more somber view, there were voices that asserted that AI represents the end of control over humanity. There have been a number of tensions and risks that require careful consideration from the perspective of human safety, health and security, freedom, privacy and dignity, non-discrimination, protection of personal data or self-determination. Artificial intelligence systems can become manipulative, discriminatory or cause physical, mental, social and economic harm. Exemplifying such aspects, we can think of the fact that these AI systems can perpetuate social preconceptions, manipulate online behaviours of children, of elderly or other categories of consumers, by exploiting perceived vulnerabilities based on advanced data and algorithms, by forcing, en masse, commercial, electoral decisions, etc. [10]

De lege ferenda, new rights/*digital rights* for consumers / citizens are required to be regulated. That is why the legal problem generated by the development of AI "boils" both at international and regional level, the legislators being "summoned" to provide effective and adequate answers, while the judge and the doctrine advocate are still in the "mixer" of abundant and complex information, difficult to penetrate and "coagulated in the present legal bond". The risk has become more acute because, until recently, there were no legislative "barriers" of any kind, and anything could be created with AI, in the sense that the person launching such a product was not legally obliged to mention that the product was created with AI, or even entirely by an AI. However, we will soon see EU-

wide regulation, which will leave room for debate and improvement in the “digital future” and which will of course be transposed at national level. We will present these steps in the following sections. What is certain is that we have reached the point where we no longer know whether a man or a “machine” has created a particular product or not, and this translates into multiple risks. The first AI-generated trailer, *The Great Gatsby*, was recently released, in which the script was written by AI, as were the voices. It’s worth noting that no video cameras, cameras, lights or even characters were used in the making of the film - it was all generated by AI. [11]

Consequently, it becomes essential to identify a balanced use of artificial intelligence, since, on the one hand, low use can also represent a major danger in the sense of poor infrastructure, lack of innovation, low investment or fragmented digital markets, limiting economic development and opportunities for citizens, and on the other hand, excessive use can lead either to unnecessary investments in AI applications, but also risks of blocking the social and legal balance.

A major regulatory challenge also remains establishing liability for damage caused by a device or service operated by AI. *Exempli gratia*, in the event of an accident caused by an autonomous car, who bears the damage? The owner, the car manufacturer or the programmer? Life certainly cannot be limited to algorithms, and figures cannot represent complex social reality, and AI can generate distorted positions and seriously affect fundamental rights. For example, AI can be used in facial recognition equipment, online tracking or profiling of individuals, managing to merge information provided by a person and obtaining new data, data that can conceive unexpected results for that person, affecting the right to privacy and the protection of personal data. AI can distort reality by the simple fact that there is the possibility of creating extremely realistic video, audio and false images, so-called “deepfakes”. They can damage the reputation of some people, lead to polarization and manipulation. Among the first “deepfakes” that spread around the world was the image of Donald Trump arrested and the image of Pope Francis in a white fluffy jacket, with celebrities and political figures being targeted. At the same time, AI has also come to voice cloning, or to the realization of influence campaigns generated by AI, which can be used by politicians in order to outsource their political campaigns. Creating a deepfake will become as simple as downloading an app, and there are currently very

few restrictions that prevent people from doing harm, especially in the case of identity theft.

Perhaps the most sensitive and familiar topic when it comes to AI is its impact on the workforce. Will humans be replaced by robots or not? What jobs can AI replace? Globally, “throbs” the preoccupation of people about the possibility of robots replacing them, with a range of professions such as programmers, software engineers, data analysts, marketers, people in the media industry (content creators, advertising, journalism) likely to be taken over by AI. Also under discussion are finance, accounting and legal jobs, with the view that “the jobs of the future will focus on combining technology with human skills, with accounting, legal and financial jobs being taken over by robots”. [12]. Moreover, Anglo-Saxon consultants specializing in legal informatics have long warned that it is necessary for legal professions to integrate AI technologies, since there is a danger that applications of the type *legal tech* [13] to overcome them later. For example, in the USA a cognitive technology has been developed that aims to replace a young lawyer, by offering some related services and even making an experimental artificial representation in court. At the same time, traditional legal journals are losing ground to AI performance in terms of relevance and speed, such as *Supra Legem*, *Case Law Analytics*, etc. At European level, numerous studies have been carried out on the impact of AI on justice systems, finding that digitisation offers real opportunities to the judicial public service. In fact, the confrontation between “human lawyers” and “digital lawyers” has already started, the culmination being the appearance of Ross, the first robot lawyer in the world, even employed at a large law firm, Baker&Hostetler, which offers consultations in the field of insolvency. [14] Ross was programmed “to understand human language, postulate hypotheses when asked, research, and generate answers and references where he argues his conclusions”. Interestingly, Ross learns from his own experiences, can go through all the legislation in one area and provide an answer that includes a case, can monitor non-stop the legislation and decisions of the courts, immediately learning about the existence of any case relevant to his matter. There are also online dispute resolution platforms based on computer algorithms, such as *Demander-justice*, in addition to the fact that there are hundreds of platforms around the

world that put clients in direct contact with lawyers, there is more and more talk of “uberisation of law and law practice”.

In the area of justice there are indeed strong incentives for the use of artificial intelligence, with public authorities around the world already identifying the budgetary benefits that could be achieved by replacing part of the judicial staff with automated systems. However, we believe that a robot lawyer can never achieve the skills of the human lawyer, namely those of communication, reasoning, analytical, research, human ability, perseverance and creativity. Moreover, the use of AI in judicial decision-making processes, by enabling programmable and predictable judicial outcomes, also entails a multitude of risks and challenges, in particular with regard to the respect of the right to a fair trial. At the same time, however, we can also consider opportunities, such as increasing the level of justice delivery, the degree of accessibility, with justice having an open path to becoming faster and less costly, with the storage and organisation of legal information available in huge quantities impossible to control by the human mind alone. AI is already making its presence felt through the possibility of online transmission of court hearings, online hearings in criminal matters, digital reconstructions, electronic communication of procedural documents, electronic file consultation, etc. The digital revolution will certainly change the legal world. One wonders whether the electronic judge - *cyberjustice* - will emerge or what a proposed regulation by a robot will look like.

Let us also not forget other EU strategies on integrating AI into the judiciary, such as Regulation (EU) 2021/694 of the European Parliament and of the Council of 29 April 2021 establishing the programme “*Digital Europe*”, the objectives being to ensure cross-border cooperation, improve access to justice for citizens, businesses and legal practitioners by providing semantic interoperability with databases, facilitate online out-of-court dispute resolution, promote the development of innovative technologies for courts and the legal profession, which are based, *inter alia*, on AI solutions.

Recently, the news regarding Fedha, the first artificial News presenter, “shook up” reality, with journalists around the world worried about the possibility of losing their jobs in such a near future. A Kuwaiti news site tweeted a video featuring a virtual Fedha presenter, which was a test of the company for new and innovative content. [15]

An alarm signal aimed at polarizing society is also the idea of creating *a specific legal status for robots*, idea stipulated in ***European Parliament resolution of 16 February 2017 with recommendations to the Commission on civil law rules on robotics (2015/2103 (INL))***, [16], which starts from the idea that these bots, robots, androids or other materializations of AI have implications, but also legal and ethical effects, which must be regulated. The idea that a robot could have the status of an electronic person responsible for possessing electronic personality, responding to and repairing the damage it causes when it makes autonomous decisions or interacts independently, has generated a number of debates in scientific circles. Thus, the regulation on the assimilation of robots with a corporation or legal entity, as well as the acquisition of rights and obligations, specific to a human being, was rejected by an open letter of a group of AI experts, considering that it is absurd and leads to violation of human rights: *“A legal status for a robot can’t derive from the natural person model, since the robot would then hold human rights, such as the right to dignity, the right to its integrity, the right to remuneration or the right to citizenship, thus directly confronting the human rights. This would be in contradiction with the Charter of Fundamental Rights of the European Union and the Convention for the Protection of Human Rights and Fundamental Freedoms”* [17].

If we still remain in the sphere of humanoid robots, let us also remember the news that shocked us in the year 2017, regarding the robot Sophia who acquired citizenship in Saudi Arabia, receiving even more rights than women living in the same country [18]. Doctrinal reactions were not slow to emerge, considering that denying some rights to robots would be “against one of the modern principles of our humanity”. [19] The question remains, however, whether or not we can be masters of AI, whether or not we can presume the right to own intelligent entities. And here we are already on the border between reality and science fiction literature. At the same time, we must pay special attention to the possibility of creating an emotional bond between man and robot, triggered perhaps by feelings of loneliness, by the human need for companionship and attachment. Let us, however, avoid reaching the level at which we will strive to be human in a machine world. In Japan, for example, attempts are being made to make technology

compatible with humans in order to fill the elderly care workforce shortage by creating simple robots to help frail citizens get out of bed and into wheelchairs. [20].

Certainly, the expansion of automation will have direct effects on jobs, especially those with lower qualifications in the occupational sectors. On the other hand, AI is expected to give rise to new jobs, but in other sectors. Andrew Moore, dean of the Faculty of Computer Science at Carnegie Mellon University, argued at the Davos Economic Forum in 2016 that machines will perform many of the “tedious tasks of civil servants” and computers will be able to help lawyers prepare millions of documents for trials, which is why digital and AI education and training are becoming essential in adapting to the socio-economic future. It becomes imperative that education prioritises the development of such training and skills programmes. Cristopher Pissarides, a Nobel Prize winner in Economics, warned in 2016 that “the authorities will have to completely reinvent education systems in order to adapt to the changes that will be brought by the rise of automation” and to offer a fair chance for people to find jobs in such a changing market. Furthermore, the EU Council adopted in December 2021 [21] certain *Conclusions on the impact of AI on gender equality in the labour market*, that new technologies would increase women’s equal participation in the labour market. In this sense, according to the Council, new forms of work must also be analyzed from a gender perspective, so as to ensure that “women and men can equally benefit from the opportunities created by the use of AI in different areas of the world of work, including in terms of working on online platforms”.

Surely AI will revolutionize the labour market and the way of work, and digital skills and collaboration with robots, flexibility and diversity in the work process will become a normality in the near future. The World Economic Forum estimates that by 2025, 97 million new jobs will be created with AI, while 85 million will be replaced by automated processes, which is why half of the employees will need intensive training to acquire new skills in the field of work, so that the future does not take us by surprise. In Romania, it has been estimated that 50% of working time can be allocated to automated tasks, such as banking, where cashiers are already being replaced by digital services. [22]

On a positive note, the vice-president of the Agency for Digitisation of Romania recently stated that “no one will ever lose their job to technology, but to a man who knows

how to use technology in order to make work more efficient”, [23] and for Romania, digitisation represents the opportunity for a revolution of rethinking administrative processes, through which to move to digital all bureaucracy, to develop distribution channels, smart cities and a high-performance healthcare system.

People need to overcome this anxiety about the future of the labour market and realise that there have been such panics since the beginning of the first industrial revolution (*Industry 1.0.* - 1760-1840), a period characterised by a shift from a focus on manual work carried out by humans and assisted by working animals, to a more optimised form of work, carried out by humans but using machines such as water engines, steam engines, etc. Socio-economic developments have shown us that jobs have actually increased. And here we could exemplify the period when the steam machine was invented and replaced wheels with water as a source of energy in production in 1800, which is why although this was expected to lead to a decrease in the number of workers in production, the sector expanded sevenfold, from 1.2 million jobs in 1830 to 8.3 million by 1910. If we refer to the agriculture sector, an area in which more than half of the existing labor force was involved in the early 1900s, we will find that, at present, due to the mechanization and digitisation of crop exploitation we find less than 2% of the population involved in this sector, which does not mean that people have not reoriented to other sectors that, on the contrary, have created more jobs, somehow balancing the situation along the way. Looking back to the period of *Industry 2.0* (1870-1914), the second industrial revolution, known as the technological revolution, we find that this too led to the faster transfer of people and ideas through the development of extensive rail or telegraph networks, with electricity becoming increasingly present in production areas, enabling factory electrification and the modern production line. At the same time, *Industry 3.0*, which took place at the end of the 20th century under the name of the *digital revolution*, profoundly marked the evolution of humanity with the advent of computers and automation, which took over the industrial “scene”.

We also seem to have ticked off the “*fourth industrial revolution*”, also known as *Industry 4.0.*, first introduced in 2015 by Klaus Schwab, executive chairman of the World Economic Forum, in an article in Foreign Affairs. The term represents the fourth major industrial age since the original Industrial Revolution of the 18th century and “is

characterized by a fusion of technologies, a fusion that blurs the lines between the physical, digital and biological spheres”. The fourth (r)evolution is about automation and data sharing in manufacturing technologies and processes including cyber-physical systems (CPS), the internet of things (IoT), the industrial internet of things (IIOT), cloud computing, cognitive computing and artificial intelligence. [25]

If we look at it as an evolution, rather than a revolution, we will understand that in this era of digitisation, all this abundance springing from AI will actually expand new areas of work and interest in the labour market. Take the example of Germany and Japan, which although they are the most automated countries in the world, have managed to lower the unemployment rate. Recently, the International Federation of Robotics (IFR) announced that India is also entering the top ten countries in the world in terms of annual robot installations, while the stock of operational robots worldwide has reached a new record of around 3.5 million units and the value of installations has reached around \$15.7 billion. Moreover, a 2016 study by the Massachusetts Institute of Technology shows that a human-robot collaboration can be 85% more efficient than human-only or robot-only work. [24] This is why we talk about the need for hybrid skills, training and education, so that we can harmoniously and advantageously integrate AI into our lives, applying the welfare of humanity and enjoying progress, the human component being essential.

In response to all these challenges, risks and opportunities, urgent legislative measures are needed to ensure the protection of fundamental rights and the safety of users, as well as confidence in the development and “embrace” of AI, regulations that are on the agenda of the European legislator and which we will develop in the next section, touching on the history and regulatory trends both at international and Union level, these being the “mirror” in which the new legislative reality will be reflected and will evolve at national level.

Regulation of artificial intelligence (AI) at international and union level. Legal strategies and perspectives in the global decision architecture and influence of future ai

Artificial intelligence is considered a central element of the digital transformation of society and has become a priority at the global level, globalization accentuating the

universalization/uniformization trends in regulation, and digitisation accentuating globalization in turn. The determining factor in the evolution of globalization was represented by the revolution in AI itself, currently this phenomenon having a special impact on international relations and especially on regional and world regulations. [26] This is due to the fact that globalization universalizes, coagulates the principles and strategies of regulation, of vision and tends towards homogenization in a single culture, respecting, of course, national identity and sovereignty. Of course, there are a number of pros and cons to the impact of this fulminating phenomenon, but it is a reality that we must inevitably “embrace”, being merged with the evolution of AI. In fact, many regional or national regulations “pull their sap” from these common regulations drawn up by international bodies, the field of AI being targeted with priority in recent years.

We could say that states are still at the beginning of the road to discovering and harnessing the benefits of AI, counterbalanced by the risk of affecting human rights and freedoms, identifying a balance in this regard and achieving a legal “construction” in the field representing a sensitive point on the international and regional “table” of negotiations.

As early as 2016, several states assumed strategies for allocating and “injecting” large amounts in the development of AI, including the USA, Canada, China, Japan, Russia. [27] The first country to adopt a national strategy for AI was Canada, allocating in March 2017, a budget of 125 million Canadian dollars for the first five years of implementation. Japan is the second country to adopt an AI strategy after Canada, in March 2017 launching the “strategy for artificial intelligence technology” and developing a symbol model with a unique innovation value, which led to the capture of the markets of audio-video, automotive or communications industries, but also the creation of a productive and versatile ecosystem that interconnects multiple domains, being constantly one step ahead of global developments. In July 2017, China strongly affirmed its ambition to become the global leader in AI research and development by 2030, with the Chinese government adopting the “next generation artificial intelligence development plan”, which aimed to allocate billions of dollars in budgets to support AI projects.

Although, according to the International Federation of Robotics, India currently enters the top ten countries in the world in terms of annual robot installations, it initially

relied on a moderate view of its intentions on AI, through the “national strategy for artificial intelligence” aiming to become the “workshop of 40% of the world”, respectively the provider of on-demand AI solutions for the developing and developed economies of the world.

The EU leaders did not lose the start either, and in this respect it must also be remembered the ***European Parliament resolution of 16 February 2017 with recommendations to the Commission on civil law rules on robotics***, this being a first warning signal about the rapid developments in AI that need to be subsumed into ethical and legal principles by common definitions at Union level on systems cyber-physical or autonomous intelligent robots to ensure that civil law rules in the field of AI are in line with the Data Protection Regulation and that areas such as: civil liability for harm caused by robots, intellectual property and data flow, standardisation, employment and institutional coordination and supervision are reached.

After numerous studies and research, the European Commission adopted in 2018 the “***Communication on artificial intelligence***”, aimed at numerous measures for the development of technological capabilities at EU level. Moreover, at that time it was recognized that the EU was behind in the field of AI investments, with a budget of about 2.4 - 3.2 billion euros, compared to 6.5 – 9.7 billion in Asia and 12.1 – 18.6 billion in North America. Of course, along with joint efforts for digital transformation at EU level, member states have also adopted national strategies, in particular the UK, Poland, Sweden, Denmark, Finland, Estonia or Latvia. At the same time, in April 2018, the EU member states signed the “***Declaration of cooperation on artificial intelligence***”, a declaration by which the signatory states, including Romania, committed to work towards a comprehensive and integrated European approach, to support the financing of AI development, to cooperate on the strengthening of research centres, to support the exchange of best practices, the transfer of information and the access of public administrations, professionals, SMEs to such developments and digital tools, for a common approach to AI challenges but also for the aspiration to occupy a significant place in the global decision-making architecture of the future of AI.

At the same time, on 19 February 2020, the Commission published the “***White Paper on Artificial Intelligence – a European approach to excellence and trust***” [28],

by which the Commission was committed to enabling scientific progress, maintaining the EU's technological leadership and ensuring that new technologies serve all Europeans, improve their lives and respect their rights, the well-being of society relying increasingly on the value created by data. Moreover, on 20 October 2020, the European Parliament adopted three resolutions in the field of AI, namely: *The Resolution containing recommendations to the Commission on the framework of ethical issues associated with artificial intelligence, robotics and related technologies, the Resolution on intellectual property rights for the development of artificial intelligence technologies and the Resolution containing recommendations to the Commission on the civil liability regime for artificial intelligence.*

Subsequently, on 9 March 2021, the European Commission adopted a Communication entitled ***2030 Digital Compass: the European way for the Digital Decade***, which aimed to provide a vision of what a successful digital transformation means by 2030. All this context created the premises for the initiation on April 21 of a ***Proposal for a Regulation laying down harmonised rules on artificial intelligence (Artificial Intelligence Act)*** and amending certain Union legislation, and in addition, an initiative to adapt liability rules to the digital age and artificial intelligence, with a proposal for a regulation on General Product Safety being initiated in June 2021.

At the level of the Council of Europe, too, steps were taken, on December 4, 2018 the European Commission for the efficiency of Justice (CEPE) adopting the ***European ethical Charter on the use of artificial intelligence in judicial systems and their environment***, through which five ethical principles were drawn up in the form of a guide on the AI approach for decision-makers, namely: the principle of respect for fundamental rights, the principle of non-discrimination, the principle of quality and security, the principle of transparency, neutrality and intellectual integrity.

On 12 February 2019, the United States Department of Defense announced in a conference call the launch of its first AI strategy, synchronized with the desire and affirmation of American leaders to maintain their supremacy in the field of AI. As a matter of fact, there have been since 2016 documents that argued the strategic priority of AI for the US, having been formulated since then 23 recommendations for strengthening the global leadership role, including "understanding and taking into account the ethical, legal

and social implications of artificial intelligence” or “ensuring the safety and security of AI systems”, the use of AI in military applications creating the greatest legal and ethical challenge in the wars of the future. The AI strategy launched in 2019 under the name “*Using AI to promote security and prosperity*”, also developed issues such as the need for cyber security and weapons systems, under the consideration that military applications are justified by the tendency of other nations, such as China and Russia, to make significant investments in AI.

In November 2021, the 193 member states of UNESCO adopted the “***Recommendation on the ethics of artificial intelligence***”, [29] this becoming a first global agreement in the ethics of AI, a first “set” of common, universal standards springing from the phenomenon of globalization. The core of the Recommendation lies in the idea that AI must be human-centered and serve the interest of humanity. The basis for this recommendation was, of course, the instruments of the international framework of human rights, namely the Universal Declaration of Human Rights (1948), including the Convention on the Status of Refugees (1951), the Convention on Discrimination (1958), the International Convention on the Elimination of All Forms of Racial discrimination (1965), the International Covenant on Civil and Political Rights (1966), the International Covenant on Economic, Social and Cultural Rights (1966), etc.

The stated aim was to define policies and regulatory frameworks that ensure fair use of AI, with respect for human rights, built around four values to support ethical AI: respect for, protection of and promotion of human rights and fundamental freedoms and human dignity, environmental and ecosystem prosperity, ensuring diversity and inclusion, and living in peaceful, just and interconnected societies. The Recommendation also includes 10 principles governing the regulation of ethics in AI, [30] namely: proportionality, safety and security, fairness, sustainability, the right to privacy and data protection, human supervision and determination, transparency and explicability, accountability, awareness and education, as well as adaptive governance and collaboration. This Recommendation crystallized a universal framework of values, principles and actions to guide states in drafting legislation, policies or other instruments on AI in accordance with international law, protecting human rights and fundamental freedoms, human dignity and equality, including gender equality. The perspective of the Recommendation is to protect

the interests of present and future generations, to preserve the environment, biodiversity and ecosystems, and to respect cultural diversity at all stages of the life cycle of the AI system, while encouraging multidisciplinary dialogue and consensus building on ethical issues related to AI systems.

Recently, more precisely on 30 March 2023, UNESCO again urged governments to implement much stronger ethics rules in AI, the director-general of the UN cultural and scientific body, Audrey Azoulay, declaring in Paris that “this is the challenge of our time” and the self-regulation of this industry is not enough to avoid the ethical damage caused by the continuous development of AI systems, it is imperative to implement the above-mentioned Recommendation. The reaction is due to the appeal of more than 1,000 experts who called for a moratorium on the new AI systems, the main issues being discrimination and stereotypes, as well as misinformation, personal data protection, human rights and environmental protection. [31]

Regarding these tensions lately, we have all heard of the open letter, initiated a few weeks ago by the Future of Life Institute, and signed by 1000 experts and personalities in AI itself, including Elon Musk, co-founder of OpenAI. This letter calls for a pause of at least 6 months in the development of highly evolved AI systems, such as GPT – the conversational robot of the Americans from OpenAI, on the grounds of triggering potential risks for humanity and society. In response to this moratorium, the co-rapporteurs of the European Parliament, including the Romanian Dragoș Tudorache, [32] initiated a letter published by the influential American daily *The Wall Street Journal* [33] and commented quite a lot by the international press, which makes a global appeal, invoking the fact that there is no need for pause, but for rules. European Commission President Ursula von der Leyen and U.S. President Joe Biden called for emergency convocation *an international summit*, in which leaders from all over the world discuss a *future regulatory and ethical framework on AI technologies*.

According to the European Parliament’s rapporteurs, “*the potential is enormous in the AI area. Like it or not, understand it or not, artificial intelligence is already present in the products and services around us, which we access, and we must understand that by investing in AI, we are actually investing in the economy of the future. We also need to*

understand as a country how we encourage the deployment of artificial intelligence in the economy". [34]

This is also the purpose for which very great efforts are being made to finalize by the European Parliament an EU law on artificial intelligence - *Artificial Intelligence Act*, [35] a regulation designed to support the development and adoption of a reliable, human-centred AI, while ensuring people's health, safety and fundamental rights in line with European values. It is an instrument proposed by the European Commission as early as 21 April 2021, with the stated aim of turning Europe into a global centre for reliable AI.

Experts argue that we need regulation, and AI has indeed shown us that the speed of technological progress is faster and more unpredictable than policymakers around the world expected. Due to the complexity of the effects that AI can generate, it remains extremely difficult to finalise a regulatory framework that keeps pace with the evolution of the technology. Moreover, the European legislator's attempt to provide a first legal framework, a first legally binding instrument in the field of AI, is becoming a truly ambitious challenge on the global market, given that technological progress in the United States and China is taking its natural course outside a regulatory framework.

These very days, several pieces of draft legislation involving AI are on the table of European leaders, with the political groups in the European Parliament reaching a provisional agreement on 28 April 2023 [36] on ***EU regulation on artificial intelligence***, a plenary vote on the EU Parliament's negotiating position is expected in June 2023, followed by negotiations with the Council and the European Commission. It should also be pointed out that since 11 May 2023 the European Parliament has banned artificial intelligence systems that can classify people according to race, ethnicity, citizenship, religion, political orientation, but also those who scan without agreement biometric data from social networks or those obtained from surveillance cameras, as well as emotion recognition systems among law enforcement or in schools. [37]

In addition to strengthening public and private investment in AI and preparing for socio-economic change, AI regulation is the third pillar on which the EU strategy for AI development rests. The Regulation also provides a comprehensive definition in art. 3 of the artificial intelligence system (AI system), meaning "*a software that is developed with one or more of the techniques and approaches listed in Annex I and can, for a given set*

of human-defined objectives, generate outputs such as content, predictions, recommendations, or decisions influencing the environments they interact with". The objectives of the EU in this regulatory framework include: ensuring standards for AI systems introduced and used on the Union market to be secure and consistent with fundamental rights legislation and union values, ensuring legal certainty to facilitate investment and innovation in AI, strengthening governance and effective enforcement of existing fundamental rights legislation, facilitating the development of a single market for legal, secure and reliable AI systems, and preventing fragmentation of the internal market.

At the same time, for the regulation of AI, the European Commission proposes a risk-based approach, distinguishing between four levels of *risk*: (i) an unacceptable risk, (ii) a high risk and (iii) a low or minimal risk. For example, in the category of high risk level were identified: critical infrastructure, such as transport, which could put citizens' lives and health at risk; educational or vocational training, which can determine a person's access to education and career path (e.g. the grading system used in exams); safety components of products (e.g. an AI application used in robotic surgery); employment, worker management and access to self-employment (e.g. CV selection software for recruitment procedures); law enforcement work that may affect the fundamental rights of citizens (e.g. assessment of the reliability of evidence); administration of justice and democratic processes (e.g. law enforcement for a specific set of factual data). On the other hand, in the category of limited-risk and low-risk AI systems, for example, emotion recognition through the AI system in a store has been identified that identifies customer reactions to advertisements based on facial expressions. At the same time, AI systems such as *chatbot*, are subject to minimum obligations of transparency, as they are intended to allow those who interact with such content to make informed decisions so that the user subsequently decides whether or not to continue using the application.

We appreciate the idea of drawing up a legal framework through a Regulation and not a Directive or Recommendation, as we will enjoy a legal instrument of the type *hard-law* at EU level, through which European rules can be directly invoked before national or European courts, as provided for in art. 288 of the Treaty on the functioning of the EU. Indeed, the Digital Single Market must be subject to a genuine harmonisation process, preferably through regulations.

European leaders start from the idea that “*being a global power means being a leader in AI*” [38], and the EU must use all its resources in the scientific and industrial fields, to stimulate research and innovation in the development of technologies, platforms and applications using AI. This Regulation will likely become a model for other regulatory initiatives in different regulatory traditions and environments around the world. That is why the way in which it is regulated is essential, since the member states do not need to “add a superficial layer” of regulations over the existing ones, but to ensure a solid legal framework, centered on man and respecting fundamental rights and freedoms. There have been cases where AI applications have affected people’s safety or their fundamental rights, and we are even considering biometric identification. *Brevitatis causa*, in 2020 the Mercadona department store chain in Spain began using in its 40 stores a facial recognition system to identify people with restraining orders and those with a criminal record. The investigation of the Spanish Data Protection Agency led to the fine of Mercadona by 2,252,000 euros because facial identification was carried out for all persons in the shops, namely customers, employees, children, the transparency requirements imposed by Articles 12 and 13 the GDPR Regulation also being violated. [39]

As a consequence, AI systems that are considered a clear threat to the safety, life and rights of individuals will be strictly prohibited by the new regulations, including applications that manipulate human behaviour by bypassing the free will of users („*social scoring*”), systems that exploit the vulnerability of individuals and systems that allow public authorities to create profiles or scores based on social behaviour. Specific restrictions and safeguards on the use of real-time remote biometric identification systems for law enforcement purposes will also be regulated.

What is certain is that throughout this period there has been an intense and permanent preoccupation with the ethical, legislative, social and economic dimensions of AI, a preoccupation that will soon be translated into an artificial intelligence act, perhaps even an AI act in its own right, capable of enhancing the capacity of AI to achieve its goals of benefiting humanity.

Romania's strategy in the field of artificial intelligence (AI). Pillars of the regulatory framework

We believe that the foundations of the national AI strategy are slowly taking shape, with such a strategy having been promised as early as 2017, and since then various working groups have been set up and reformed with this mission.

Moreover, Romania has declared itself open from the beginning to this vision promoted at international and Union level, in 2019 Romania being the only non-OECD European country (Organization for Economic Cooperation and development) that has adhered to the Organization's Recommendations on Artificial Intelligence. Romania also welcomed and took note of the UNESCO recommendations for Ethics in AI, recommendations outlined in the previous section. [40]

Because we are at the culmination of the concretization of a legislative instrument of the type *hard law*, more specifically the EU Regulation on artificial intelligence, we consider that it becomes a priority for Romania to invest and get involved in this negotiation process at European level, as we are talking about rules that will reform and trigger the harmonization of the legislation of all member states in the vision and direction outlined in these months. On the other hand, Romania will have to finalize its national strategy in the field of artificial intelligence under the "umbrella" of these European regulations, and a diversity in approach may subsequently generate great difficulties in uniforming and "embracing" the *acquis communautaire*, these being the advice of European leaders.

According to the directions drawn in stages by the EU institutions, the national strategy has been oriented since 2021 towards the need to establish a Regulatory Authority for AI by 2023, with the aim of monitoring and regulating ethical AI internally. According to the strategy, at the heart of the mission of such an authority is, of course, the protection of fundamental rights of citizens, the development of artificial intelligence in Romania, the harmonization of domestic legislation with EU regulations on AI, ensuring compliance by developers of AI solutions with their obligations in terms of transparency, confidentiality, robustness of the systems developed, informing developers and users of AI solutions about potential risks or rights that could be violated, and also providing technical expertise for the regulation of AI-based systems, so that the regulations

introduced contribute to accelerating AI innovation in Romania and ensuring public confidence in AI-based systems. Of course, a first pillar to support the development of AI at national level is the creation of the data space at national level. [41]

Similar institutions are found in Germany (German Observatory for Artificial Intelligence Institute), which ensures, on the one hand, dialogue between the government, the scientific environment, the business environment and the citizens, and on the other hand, warning actors, developers or users of AI applications about the ethical and legal constraints of AI.

An internal law in the field of AI will certainly “find its place” in the Romanian legislation, but it is a difficult process, with huge stakes and efforts to match, and this is due to the complexity, interdisciplinary character of the field, as well as the “echoes” that it implies in the existing related regulations, such as human rights protection, consumer protection, product safety, nondiscrimination law, GDPR, etc.

The institutional architecture for a regulation of AI seems to be starting to take shape in Romania as well, the establishment of specialized bodies in the field exceeding the objective stage of the strategy. Recently, more precisely on 4 May 2023, it was established the **Romanian Committee for Artificial Intelligence** based on Order no. 20.484/2023 on the establishment, organization and functioning of the Romanian Committee for Artificial Intelligence, whose mission declared is to “support the Ministry of Research, Innovation and Digitisation in the exercise of their duties as a state authority in the field of research and development, innovation and digitisation, through proposals on regulation, coordination, monitoring and evaluation of activities on artificial intelligence (AI), as well as its development in Romania”. At the same time, according to the regulations in force, the main objective of the committee is “to create an **artificial intelligence ecosystem based on excellence**, trust and **compliance with ethical principles, coherent, efficient and sustainable**, to generate added value in social and economic terms through the use of artificial intelligence technologies, to promote and support research-development-innovation and education/training in this field, to increase the number of local specialists and to capitalize on the contribution of the private environment and Romanian citizens abroad, aiming to stimulate the widespread adoption of the field of artificial intelligence in Romania”.

This Committee that “brings together the great minds of Romania in the country and in the diaspora” will succeed in consolidating the pillars of the national strategy in the field of AI and closing the circle of efforts to crystallize a coherent and sustainable legal framework. Moreover, several structures, councils and working groups will function within this Committee, such as: *Artificial Intelligence Science and Ethics Council* which will provide the Romanian government with scientific advice on the responsible and ethical use of artificial intelligence, *Artificial Intelligence Education Council*, which will provide the Romanian government with advice on adapting the national educational field to respond to the specifics and needs generated by the evolution of the IA field; and the *Coalition for the Development of Artificial Intelligence*, an open consultative initiative that includes representatives of companies, non-governmental organizations and other legal entities interested in the field of AI, on behalf of the business, investment and start-ups in Romania, with an advisory role to support the work of the Committee, excluding any form of representation of commercial interests or free market influence. [42] All this will come to life by working with the *Romanian Hub for Artificial Intelligence* [43], as well as with the *Interinstitutional Commission for Romania’s AI Strategy*, bodies to be created in the near future.

It should also be noted that NVIDIA, a world leader in artificial intelligence-based processing, and the Ministry of Research, Innovation and Digitisation have recently signed an agreement to strengthen the Romanian capacity in artificial intelligence, whereby “NVIDIA partners will support us in developing a national AI strategy for Romania, within the Romanian Committee for Artificial Intelligence (CRIA), the Scientific and Ethical Council for AI or the AI Hub...in addition, we will be able to use NVIDIA’s accelerated computing platforms to promote Romania’s progress in the field of digitisation of public services, as well as in harnessing solutions based on artificial intelligence” [44].

Let us not forget also the key role of the Authority for the Digitisation of Romania (ADR), [45] institution created since 2020 with the aim of digital transformation of Romanian society by “moving to a new technological, informational and social paradigm”, starting with public institutions, followed by the private environment, the associative environment, local communities and the whole society, which, to the same extent, represent essential parts of this process.

Instead of *conclusions* - reflection: “building” trust in AI together through a transparent and sound legal framework

The fact that globally we are going through a period full of challenges and uncertainties due to the accelerated “adoption” of technology in all aspects of human activity, further “deepens” the need for security in a world “trapped” in the labyrinth of promises offered by AI, a source of modern-day fascination.

Under the impact of these pressures but also promises to increase the quality of life, we believe that we must nevertheless react proactively and responsibly, by understanding in depth the effects generated, by evaluating the benefits, so that the legislator has the necessary data to determine the profile that technologies will have in the emergence of new social and economic models in the medium and long term, generating a balanced, transparent, secure and proportionate regulation, approached from the perspective of data protection, values and principles, competitiveness, physical safety, intellectual property, etc. [46]

Of course, AI will bring about a cultural change, a change that we will have to gradually assimilate, as reliance on artificial intelligence will become a necessity, not an option. The new visions will resize the approach of primary legislation and will accelerate the evolution of the national legal culture, crystallized under the auspices of the European Union but also the international culture, through the trend of uniformity, and here we must take into account the two meanings arising from the core *legal culture*. On the one hand, this designates the way in which the individual understands to relate to a rule of law and to internalize it, we are talking about the subjective dimension of conception of the legal culture, and, on the other hand, the legal culture designates the way in which the individual establishes their behaviour in society by reference to the rule of law, and here we are considering the inter-subjective dimension of modeling social actions and interactions, the impulse given by the rule of law reaching its goal by modeling the human behavior itself. The latter component of legal culture is essential in the assimilation and acceptance of the “new” by humanity, so that legislation “pulsates” in unison with the society.

The draft Regulation on the table of European leaders represents somewhat the “spearhead” of the development of *global AI rules*, by setting standards paving the way for a world-wide ethical technology conducive to the future and innovation. This European “legal construction” represents the first piece of legislation worldwide dedicated to AI and, at the same time, the path to the trust and embrace of artificial intelligence by humanity, promoting only that digital transition that fully respects fundamental rights and is at the service of humanity. At the same time, through the proposed regulatory framework, the EU wants to become the leader in the development of a responsible AI, which emphasizes ethical aspects such as transparency of algorithms, reduction of discrimination, ethical principles representing the foundation around which the regulations on the use of AI have merged. In addition to these principles, the Regulation lists a set of guidelines on ethical AI, responsible AI or trusted AI, which are starting points in the interweaving of procedures for auditing and certifying AI applications (e.g. for Google, DeepMing, Microsoft or Amazon). Crucially, it also aims to stimulate the right of citizens to complain about AI systems and to receive explanations about decisions involving high-risk AI with significant impact on human rights. To this end, the EU AI Office has also been reformed to monitor the implementation of the AI rulebook.

In order to exploit opportunities and prevent threats, it is extremely important to increase confidence in AI but also to monitor its development, and ethical guidelines are needed. Thus, several states, such as France, have published ethical codes and principles, the model being followed by the private sector, for example, Google, IBM, but also by research institutes, such as the Future of Life Institute.

A further boost to confidence in improving the regulatory framework comes from the fact that the European legislator’s approach to AI has been to issue legislation in the form of a regulation, which limits the scope for states to create regulations that are unreliable or circumvent European rules. This is a good start for the digital market to undergo a genuine harmonisation process, through perfect coordination and “flexible” legislation, technologically neutral, proportionate and adapted to the demands of the future, but above all human-centred and guided by ethical principles.

As of 8 April 2019, the High-Level Expert Group on AI - AI-HLEG presented the *Ethics Guidelines for Trustworthy AI* [48], which was based on another draft published in

December 2018 to which more than 500 comments were made. According to these Guidelines, AI should be: *legal* - in compliance with all applicable laws and regulations; *ethical* - respecting ethical principles and values; *robust* - both from a technical point of view and taking into account the social environment in which it is carried out, being necessary that all three components work in harmony and overlap in operation. At the same time, ethics must revolve around fundamental rights, being identified by the AI-HLEG ethical principles and their related values to be respected, namely: development, implementation and use of AI systems in a way that adheres to ethical principles: respect for human autonomy, prevention of dangerous effects, equity and explainability; paying particular attention to situations involving specific vulnerable categories, such as children, people with disabilities, but also others who have been disadvantaged in the past or are at risk of exclusion, as well as situations that are characterized by asymmetries in information capacity, such as employers and employees or between businesses and consumers; recognising that, although they bring substantial benefits to individuals and society, AI systems also carry certain risks, potentially generating a negative impact, as well as effects that may be difficult to predict, identify or measure, such as democracy, the rule of law, justice or, more seriously, the human mind, hence the imperative of sound regulation commensurate with the scale of the risk. [47]

Relevant for the legal construction in the field of AI remain, of course, the Universal Declaration of Human Rights, the EU Charter of Fundamental Rights, the European Convention on Human Rights, as well as the EU *acquis communautaire* on data protection and non-discrimination. Moreover, the EU Charter of Fundamental Rights, which became legally binding in December 2009 and has the same legal value as the EU Treaties, requires the Union's institutions, bodies, offices and agencies to respect all enshrined rights when implementing Union law, and this applies to AI as to any other area. Consequently, any new policy, any legislative act implemented by the European legislator and the Member States must ensure respect for the full range of fundamental rights and be accompanied by guarantees to this effect, in accordance with the principle of necessity and the principle of proportionality, all the more so as the implementation of AI systems involves a wide range of human rights.

The fact that there are independent bodies at EU level to protect and promote fundamental rights, such as data protection authorities, equality bodies, national human rights institutions, etc., also gives us confidence and security in accepting AI developments in a good direction, ensuring: respect for people's autonomy, prevention of harm, fairness, non-discrimination, solidarity and justice. Let's not forget that according to the Charter, *the human being benefits from a unique and inalienable moral status*.

In the reconfiguration logic invoked above, the responsibility for fair AI lies not only with the AI companies that create the tools, but also with the companies that use the technology, with IBM research showing that 74% of companies surveyed said they still do not have all the capabilities to ensure that the data used to train AI systems is not biased, nor the tools to allow them full transparency about how the algorithms work. International organisations, governments, the private sector, civil society, technical communities, research institutes or academia all need to be held accountable to respect human rights tools and frameworks in all interventions and processes that gravitate and surround the entire lifecycle of AI systems. All actors involved in the creation or management of AI have a participatory and enabling role to ensure a peaceful, just and interconnected society in ethical values and principles, with AI in turn contributing to the well-being of humanity. It is our responsibility, all of us, to take up these innovations in all sectors of life.

By exploring the benefits of AI and "building" trust in AI together, we can also address global issues. AI has the potential to play a key role in the fight against climate change, and can help companies make sustainability and carbon reduction decisions much more easily. AI can transform business, banking and lending, and help doctors make a diagnosis quickly, with the ability to aggregate data to calculate symptoms. For example, Credit Mutuel in France has adopted AI to help its advisers provide better and faster answers to customers, while NatWest in the UK is helping its customers make better informed mortgage decisions.

We wonder how AI could evolve in 2024, if the year 2022 was a year impacted by the so-called *Chatbots*. Thus, in early 2022, OpenAI launched DALL-E 2, a deep learning technology that produces images from tested instructions, later Google and Meta launching AI that can produce video from text instructions. The year 2023 was marked by

the launch of *ChatGPT 3*, which has the ability to produce eloquent and well-documented texts at the command of a short textual description. The future certainly reserves us an upgrade, namely a GPT-4, which, like its predecessor, will be able to translate into other languages, summarize and generate texts and answer questions more precisely and quickly, since according to forecasts it will benefit from a trillion parameters. Incidentally, Google management issued a “code red” at the time of the launch of ChatGPT 3, motivated by concerns about the impact it would have on Google’s search engine, competition being here a sensitive point that will take hold in the coming years in the field of AI. [49] Interestingly, you can have a conversation with such a chatGPT, which gives you in a very real and mature version including the answer to the question: “**Can artificial intelligence conquer the world?**” [50]. According To ChatGPT, “*it is unlikely that an AI system will “take over the world” in the classical sense. Even if advanced AI systems can perform tasks previously considered uniquely human, such as making decisions and solving problems, they do not have the physical ability to take over the world. In addition, the development and deployment of AI systems is seriously regulated and monitored to prevent possible harm. However, an AI system could cause significant harm if its goals or objectives are not aligned with human values or if the system is not properly controlled*”. Consequently, we must be aware of the role of all of us, to weigh between the potential risks and benefits of AI and to develop it only in accordance with ethical principles and in a safe and transparent legal framework.

Let’s not forget that AI has changed our lives and brought us many benefits in all areas of life, from the automotive industry, or the function of *facial recognition* from our phone, the transport systems (and Uber uses the AI system for navigation so as to analyze traffic and optimize the route), even the spam system in the email being also an AI, (Gmail having, for example, the spam filtering capacity of 99.9%), up to the use of AI in the exchange, cryptocurrencies or the medical system (starting from the faster identification of cancer cells). Bill Gates predicts AI will soon be integrated into healthcare systems around the world. At the same time, AI can eliminate redundant tasks in our professional lives and take over everything that can be robotic, it can even start a research action by the ability to analyze enormous sets of data and interconnect them, generating a finished product for further analysis by man. Basically, we will be relieved of all the work

of gathering information and will only be prepared for analysis and creative act, starting from a much more advanced point, which will change enormously the scientific method of research and accelerate it. The education system will be forced to focus on analysing information and especially on critical thinking, leaving behind the imperative of assimilating information. We already have Google and access to 99% of humanity's information, but the important thing is how we filter and interpret it. The regulations that will change our vision are very close, and soon we will realise that technology has no empathy, it just follows its natural course through the filter of the human mind, impacting most aspects of our lives for almost 30 years without us even realising it (bank cards, satellites, chips, barcodes, etc.).

Therefore, let's try to move away from associating AI with job losses, the destruction of humanity or the violation of fundamental rights *and enjoy the "journey", discovering together the future with AI!*

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