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THE PROBLEM OF DIGITALIZATION IN THE FIELD OF INTELLECTUAL PROPERTY ON THE BASIC OF THE UE'S DIGITAL SERVICE ACT (DSA) AND DIGITAL MARKET ACT (DMA)

This article deals with the topic of digitization in the field of intellectual property protection, highlighting the new challenges dictated by the evolution of new technologies and the need to protect the segment still not well regulated. Examples are given of the European regulation. The question of the non-patentability of AI algorithms is addressed and if, within certain limits, legal recognition is possible on the basis of Article 52 of the EPC. Are analyzed the difference between human creations obtained with the assistance of AI and those generated autonomously by AI under EU legislation. Finally, the impact that the recent global pandemic had in the field of the protection of IP is brought to attention. The two EU legislative proposals are briefly analyzed: the UE's Digital Service Act (DSA) and Digital Market Act (DMA) and what interaction they could have on the protection of IP.

1.Introduction.Technological development in the field of artificial intelligence creates new questions about the intellectual property rights of the subjects involved, placing scholars in front of the need to interpret current legislation and think about possible future adjustments. The way in which intellectual property rights are configured in the context of artificial intelligence (AI) is becoming particularly complex considering the development of increasingly sophisticated algorithms.

Today, the issue is no longer limited to determining who owns a software, but goes much further, to the point of assuming that intellectual property rights are owned by the AIs themselves.

The ability of a country to attract tangible and intangible investments, to favor the business of companies, including foreign ones, is an essential component of its being competitive. Continuous innovation, the development and protection of intellectual property, a global vision of markets and opportunities are the strengths of "doing business".

A correct strategy of managing intangible assets must involve, in addition to the direct exercise of the rights of economic exploitation like directly distribute the work of the ingenuity, market, the invention covered by the patent, affix the trademark on your products, etc., also the stipulation of assignment or license agreements.

Investing in research and innovation not only give a competitive advantage over competitors, but also give companies the opportunity to exploit their results commercially.

The digitization of content - for example, the transformation of drawings, music, videos into digital formats and, therefore, reproducible by any computer - opens up a new world for companies to enhance their products and services. It is possible to distribute music and movies on the net (through e-commerce portals) according to the model launched by Apple with the iTunes Store. It is also possible to create attractive internet portals in which companies can promote and/or distribute their products and services. This commercial transaction will increase both the companies' sources of income and the intrinsic value of the related intellectual property rights.

Legislation must also follow technological evolution and the European Union was one of the first to open the discussion and make legislative proposals to be implemented in the individual Member States. Among the very recent legislative proposals we can highlight the UE's Digital Service Act (DSA) and Digital Market Act (DMA).

2. The non-patentability of AI algorithms on the basis of Article 52 of the European Patent Convention.

The algorithms on which AI is based are real "mathematical methods" within the meaning of the European Patent Convention, which establishes its non-patentability, as well as scientific discoveries and theories.

The Article 52 of the Convention protects inventions provides that "which are new, in implied by inventiveness and are suitable in industrial application", explicitly excluding mathematical methods from this category.

When it comes to intellectual property, two opposing requirements must be taken into account. On the one hand , we have the importance of remunerating the creator of the invention, so as to encourage his work. On the other hand, the works of ingenuity are intangible and, therefore, unrivalled assets: their simultaneous use by several subjects does not decrease their value. On the contrary, it increases the possibility that other individuals, starting from that work, will come to create new inventions. This characteristic of intellectual works makes its free movement desirable, but it is restricted by intellectual property rights.

At the basis of the exclusion of the Article 52 of the European Patent Convention is precisely the need to promote the exchange of information, which in some cases of "basic knowledge" (for example a scientific theorem) prevails over the importance of remunerating the creator.

However, the Article 52(3) contains the conditions for the patentability of algorithms that are used as part of an AI system that contributes to further technical effect: if the mathematical method is part of a more complex system, which has all the elements of inventions established in the first paragraph of the Article 52 (novelty, inventive activity and industrial application), then the whole system is patentable, including the mathematical method used.

Under EU law, therefore, it would appear that an artificial intelligence system as a whole can be patented if it meets the above requirements, but not the algorithm itself.

3. The difference between human creations obtained with the assistance of AI and those generated autonomously by AI under European legislation.

There is also a further profile of protection of the developer's work: the software is protected by copyright legislation, regarding the elements resulting from and expression of the author's creativity. We are faced with a real text and, therefore, it is treated by copyright as if it were a novel.

Now, AIs cannot be considered rightsholder’s because they do not have legal personality. This is what the European Patent Office stated in its Decision of 27 January 2020 (CBE) and which was clearly reiterated in the recent European Parliament Resolution on intellectual property rights for the development of artificial intelligence technologies that was adopted on 20 October 2020 (2020/2015(INI)).

The European standard shows that AI and related technologies are based on the creation and execution of computer programs, which as such are subject to a specific copyright protection regime under which only the expression of the computer program can be protected and not the ideas, methods and principles underlying one of its elements.

This assessment focus on the impact and implications of AI and related technologies under the current system of patent law, trademark and design protection, copyright and related rights, including the applicability of the legal protection of databases and computer programs, and the protection of undisclosed know-how and business information (like trade secrets) against their unlawful acquisition, use and disclosure (…); emphasizes.

Further, the need to assess whether contract law ought to be updated in order to best protect consumers and whether competition rules need to be adapted in order to address market failures and abuses in the digital economy, the need to create a more comprehensive legal

framework for the economic sectors in which AI plays a part, thus enabling European companies and relevant stakeholders to scale up, and the need to create legal certainty.

The rule states that in any case the protection of intellectual property must always be reconciled with other fundamental rights and freedoms of EU.

There are the difference between AI-assisted human creations and AI-generated creations, with the latter creating new regulatory challenges for intellectual property rights protection, such as questions of ownership, inventorship and appropriate remuneration, as well as issues related to potential market concentration.

Further considers that IPRs for the development of AI technologies should be distinguished from IPRs potentially granted for creations generated by AI. Therefore, in cases where the AI is used only as a tool to assist an author in the process of creation, the current IP framework remains applicable.

All European Union member states must transpose the EU's copyright directive into national law by 7 June 2021.However, with fears that Article 17 of the plans, designed to ensure that platforms would no longer make copyright-infringing work available online, could result in online upload filters being used, some member states are dragged their feet.

As of 30th of September 2020, the following countries have certainly started the process of transposition of the Directive: Belgium, France, Germany, Ireland, Italy, Holland, Czech Republic and Hungary.

4. The impact of the global pandemic on the digitalization in the field of intellectual property. Brief thoughts on the UE's Digital Service Act (DSA) and Digital Market Act (DMA).

Since the pandemic started last year, European citizens have had to radically realign their lives to the new reality. For the most part, this has meant rapidly migrating their personal and professional lives online. The same changes have also affected people residing outside the European context. With this comes a broad range of policy measures aimed at reinforcing Europe's connectivity and heightening cybersecurity standards across 2021.

Two new and very recent legislative proposals are coming from the EU Commission to regulate digital services and digital markets, which are set to revolutionize the digital services market, including social media, online marketplaces and other online platforms operating in Europe.

These are, respectively, a Digital Services Act (DSA) and a Digital Markets Act (DMA). Among the main aims, alongside ensuring more effective protection of consumers and their fundamental rights online through an organic framework of rules - overcoming the situation of recent years that has seen repeated rulings by the Court of Justice, often in order to fill a legislative gap - there is also to make the digital markets themselves fairer and more open for all, users and businesses.

On the one hand, it expects the new body of legislation to contribute to the creation of new, better and reliable online services, while trusting that the new framework will promote innovation, growth and competitiveness of operators, in particular by supporting the expansion of smaller platforms, small and medium-sized enterprises and start-ups, facilitating access to customers throughout the single market and at the same time reducing compliance costs.

The Commission consulted a wide range of stakeholders in preparation of this legislative package. These stakeholders included the private sector, users of digital services, civil society organizations, national authorities, academia, the technical community, international organizations and the general public. An array of complementary consultation steps were also carried out to fully capture stakeholder views on issues related to digital services and platforms.

In particular, the Commission consulted stakeholders to further support its work in this area during the summer of 2020. The evidence was used to identify specific issues that may require EU-level intervention in the context of the DSA and the DMA. European and non-European citizens and organizations were welcome to contribute to this consultation.

Therefore the EU Commission has launched an open public consultation on the announced Data Act aiming to create a fair data economy by ensuring access to and use of data. The consultation seeks to gather views from citizens, businesses, online platforms, academics, civil society, administrations and all interested parties. It is open until 3 September 2021.

The proposed Digital Services Act (DSA) regulation is based on an awareness of changes in the digital services sector in the twenty years since Directive 2000/31/EC on electronic commerce was adopted. Online intermediaries have taken on great importance in the process of digital transformation and a leading role has been played. In particular, by online platforms which owe significant benefits both to consumers and to intra- and non-EU cross-border exchanges of businesses and traders.

With the DSA, the internal processes of online platforms will become more transparent and businesses will be able to make business decisions in greater knowledge of the facts. especially: disincentives for companies to take voluntary measures to protect their users from illegal content, goods or services will disappear; companies will use new simple and effective mechanisms to report illegal content and goods that infringe their rights, including intellectual property rights, or represent unfair competition; companies may also become "reliable whistleblowers" of illegal content or goods.

The Digital Markets Act (DMA) proposes the introduction of harmonized rules defining and prohibiting unfair practices by "digital market access controllers"(gatekeepers), providing for an application mechanism based on market surveys.

The legislative proposal immediately appeared to raise a defense shield against the excessive power of Big Tech, among which there are first and foremost the large American companies.

The DMA, in fact, aims to face the negative consequences deriving from certain behaviors of online platforms that have assumed the role of gatekeepers: the name indicates the role of access point through which business users reach consumers enjoying a consolidated and lasting position on the digital market, it is the intermediaries between companies and customers, who often take advantage of their position of advantage.

The DMA aims to regulate platform/business relations, building on the findings of the Online Platform Economy Observatory and the Commission's extensive experience of online marketplaces through the application of competition law.

With the DMA, innovative companies and technology start-ups will have new opportunities to compete and innovate in the online platform environment without having to comply with unfair conditions that limit their development. The legislative instrument will ensure greater legal certainty for businesses and in particular: companies selling goods and services through the digital market will be able to access certain data held by gatekeepers and will be able to choose between different platforms, and will also have greater opportunities to change and combine services according to their needs; business users (businesses) will know what to expect when dealing with gatekeepers; gatekeepers will clearly know the obligations applicable to them; there will be clearly defined procedural rules to ensure rapid decisions which will quickly benefit both business users and consumers.

Conclusions.In conclusion, works produced independently by artificial agents and robots may not be eligible for copyright protection, in order to respect the principle of originality, which is linked to a natural person, and since the concept of "intellectual creation" concerns

the personality of the author. It is necessary to have a horizontal approach, based on concrete and technologically neutral data on common and uniform provisions on copyright applicable to works generated by the in the European Union, if it is considered that such works could be considered eligible for copyright protection. It is essential that ownership of any rights is assigned only to natural or legal persons who have created the work lawfully and only if the copyright holder has granted authorization in the case of the use of copyright-protected material, unless exceptions or limitations apply in the field of copyright. The European Parliament stresses the importance of facilitating data access and data sharing, as well as open standards and open source technology, while encouraging investment and stimulating innovation. Stresses the need for the European Commission to aim to provide balanced and innovation-driven protection of intellectual property, for the benefit of European AI developers, to strengthen the international competitiveness of European companies.

In a context in which the pandemic situation has made the discourses on the need for an economic recovery increasingly central, and with the awareness of what is the value and contribution of these realities in this direction, it is increasingly important to reflect on the ways in which small and medium-sized enterprises can develop, and at the same time protect themselves, within the markets. And this is precisely the objective that was placed at the base of the discussion on the occasion of World Intellectual Property Day 2021: to highlight the fundamental role of small and medium-sized enterprises for the economy, and how they can use intellectual property rights to build stronger, more competitive, and resilient companies, protecting their creativity and innovative scope and consequently contributing to economic development.

Small and medium-sized enterprises account for 90% of companies worldwide, with 70% of employment globally. In the European Union alone, they make up 99% of companies.

A joint research of 2019, by the European Patent Office (EPO) and the European Union Intellectual Property Office (EUIPO), "High Growth Firms and Intellectual Property Rights", highlighted a close correlation between the growth potential of small and medium-sized enterprises and their ability to manage and enhance intellectual property rights (patents, trademarks, design, copyright). Research has shown that a small or medium-sized company in a low-tech sector is 172% more likely to become a high-growth company if it holds one or more patents. And companies that manage all intellectual property rights in an integrated manner are 33% likely to become high-growth companies.

Therefore, in addition to a regulatory evolution, it is necessary to push for an evolution of the awareness of the competitive advantages of the correct protection of intellectual property. The importance of knowledge sharing should also not be underestimated. Knowing how to draw on the immense heritage of open data and open resources can be a huge stimulus to the growth of competitiveness.

In the era of exponential growth, open innovation and ecosystems, unfortunately too often this system ends up being in sharp contrast with sustainable and inclusive innovation. We need an epochal change of the IP paradigm, but the current paradigm means that such a revolution would generate too many injustices towards too many.

In this context, the European Union has proposed the important legislative innovations represented by Digital Service Act (DSA) and Digital Market Act (DMA).

If it is true, for example, that the value of a trademark is closely connected with the knowledge of the same by consumers, then using the trademark on the net, in the countless possibilities offered, allows the owner to multiply its visibility and, therefore, its value.

Intellectual property - understood in a dynamic key as a tool for certifying the innovative and creative capacity of a company (which is, as such, able to attract finance and risk capital) -

must be considered in the round, that is to say as a set of certifications that acquire and increase in value also on the basis of the degree of interdependence and complementarity that they are able to establish between them. In these cases, in fact, the value of the intellectual property portfolio must be considered as a whole, which is higher than the value of the assets themselves individually considered.

IP can, therefore, constitute an important intangible asset. However, it is only in recent years that there has been a growing awareness of the strategic role of intellectual property which, in fact, does not exclusively play a defensive function of company income, but can be monetized, that is, transformed into an additional source of income for companies. The traditional legal or defensive approach is therefore accompanied by a business-oriented approach in the management and evaluation of intellectual property, identifying intellectual property as a competitive and financial tool.

ABBREVIATIONS

AI – Artificial Intelligence;
EU – Europen Union;
EPC – European Patent Convention;
DSA – Digital Service Act;
DMA – Digital Market Act;
IPR – Intellectual Property Rights;
EUIPO – European Union Intellectual Property Office.

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