## Artificial Intelligence, Intellectual Property and Judicial System

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Stephen Hawking referred to artificial intelligence (AI) as a science that could help in resolving the issues that occupy humanity. The Organization for Economic Cooperation and Development (OECD) considers AI as a system and defines it as "a machine-based system that can, for a given set of human-defined objectives, make predictions, recommendations, or decisions influencing real or virtual environments". Schalkoff defines AI as a field of study "that seeks to explain and emulate intelligent behaviour in terms of computational processes".

Many other definitions could be mentioned, all of them different, especially when taken from legal instruments which are adapted, sometimes, to unique cases or contexts. However, two characteristics seem to unite all of them: the AI's autonomy and the AI's utilitarian value.

These AI's qualities not only justify its ever-increasing presence in all sectors of life, but also question moral, philosophical, anthropological, and legal concepts that lead intellectuals to speak of an anthropological revolution, in which the systems speak to us. Technology has changed its status as it is used to assess the reality and give recommendations about it.

The effects of AI are distinct for different areas of the law. It would not be unreasonable to say that it is in intellectual property (IP) that AI has the most impact.

When considering the innovations made by AI, which are entitled to be protected by IP rights, not only does AI challenge the notions of author and inventor, but, particularly, it raises the essential question of its legal personality (I).

Additionally, given its ability to assist humans in solving problems in gradually complex legal and social contexts, AI is being progressively incorporated into the judicial system, but not without compromising fundamental rights (II).

## I/ Authorship, Inventorship and Legal Personality

AI's authorship and inventorship is a central question in IP because, alongside considering whether AI can be an author/inventor of IP rights (A), it raises the question of whether AI can be endowed with legal personality (B), or, at least, enjoy a hybrid status (C).

## A/ Can AI be Author or Inventor of Innovations?

The aim of this part is not to demonstrate whether AI can, morally, ethically, or philosophically, be the author or inventor, but to show how the legislation responds to this question and how the Institutes and Courts interpret it.

Because there is extensive thinking and vast court decisions on copyrights and patents regarding this issue, this analysis will be limited to copyrights (1) and patents (2).

## 1. Copyrights

ChatGPT<sup>1</sup>, Next Rembrand<sup>2</sup>, Midjourney<sup>3</sup> and Dall-E  $2^4$  are some examples of AI challenging the traditional concept of authorship. But what is the traditional concept of authorship?

#### 1.1 Definition of Author

The Berne Convention<sup>5</sup> frequently refers to "author" but does not define it. The WIPO Copyright Treaty and The Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS), which require compliance with the Berne Convention, are not more enlightening.

In the absence of a precise definition, Article  $15.1^6$  of the Berne Convention, which provides that it is sufficient for an author to have their name in a work to be regarded as such, is commonly interpreted by the doctrine as implying that an author is a natural person. Indeed, the use of the personal pronoun "his" supports this interpretation. Thus, the traditional position defends that there is a universal principle of human authorship in copyrights.

The European Directives, in the light of the Computer Program Directive<sup>7</sup>, Database Directive (Article  $4.1^8$ ), and other European Directives that employ the same vocabulary, are more specific but still subject to interpretation.

The Computer Program Directive defines the author of computer programs in its Article 2.1.<sup>9</sup> as "the natural person or group of natural persons" or "the legal person designated as the right holder" by the national legislation.

In this case, uncertainty arises from the fact that the directive defines a legal person, which need not be human, as an author by virtue of being the holder of the IP right, rather than by virtue of creating the work.

Even limited to specific types of works, such directives do offer the possibility of considering a legal person as an author. It is therefore advisable to examine the position of courts on this issue, with the Court of Justice of the European Union (CJEU) serving as an example.

#### 1.2 The Position of the CJEU

The CJEU has been called upon to rule on several occasions on cases related to AI. Although it has never decided on the notion of "author," it has addressed the question through the requirements of "work" and "originality."

<sup>&</sup>lt;sup>1</sup> https://chat.openai.com/

<sup>&</sup>lt;sup>2</sup> https://www.nextrembrandt.com/

<sup>&</sup>lt;sup>3</sup> https://midjourney.com/

<sup>&</sup>lt;sup>4</sup> https://openai.com/dall-e-2/

<sup>&</sup>lt;sup>5</sup> The Berne Convention for the Protection of Literary and Artistic Works (as amended on September 28, 1979). <sup>6</sup> "(1) In order that the author of a literary or artistic work protected by this Convention shall, in the absence of proof to the contrary, be regarded as such, and consequently be entitled to institute infringement proceedings in the countries of the Union, it shall be sufficient for <u>his</u> name to appear on the work in the usual manner. This paragraph shall be applicable even if this name is a pseudonym, where the pseudonym adopted by the author leaves no doubt as to his identity."

<sup>&</sup>lt;sup>7</sup> Directive 2009/24/EC of the European Parliament and of the Council of 23 April 2009 on the legal protection of computer programs.

<sup>&</sup>lt;sup>8</sup> "1. The author of a database shall be the natural person or group of natural persons who created the base or, where the legislation of the Member States so permits, the legal person designated as the rightholder by that legislation."

<sup>&</sup>lt;sup>9</sup> <sup>••</sup>1. The author of a computer program shall be the natural person or group of natural persons who has created the program or, where the legislation of the Member State permits, the legal person designated as the rightholder by that legislation."

In its decision of 12 September 2019<sup>10</sup>, the CJEU recognized that there are two cumulative requirements to accept that a work is protectable by copyright: (i) it must be original and (ii) it must be identifiable with sufficient precision and objectivity.

According to CJEU jurisprudence, namely the *Infopaq*<sup>11</sup>, *Murphy*<sup>12</sup>, *Football Dataco*<sup>13</sup> and *Painer*<sup>14</sup> decisions, a work is considered original if it reflects the personality of its author. This means that a work is original only if it results from the author's personal intellectual creation, which requires the ability to make free and creative choices. In the AI context, it may be conceivable that an AI makes choices, but its ability to make free and creative choices is much more contestable.

It is true that AI may be composed of neural networks, which are not simple algorithms but include synapses that function similarly to the human brain. However, we are far from fully understanding how the human brain functions. Additionally, while AI is capable of following logical rules and making predictions based on data, qualities such as inspiration, imagination, and emotion are generally understood to be beyond the scope of current AI capabilities and cannot be equated with random outputs produced by neural networks.

In conclusion, at present, the notion of "originality" is directly linked to the human personality. Therefore, AI works are disqualified from being considered a "work" in accordance with CJEU jurisprudence, and the question of authorship is not relevant.

#### 2. Patents

Since an invention does not inherently require imagination, emotions, or choices, and since AI can invent in ways that are not obvious to humans, it may seem morally and philosophically acceptable to admit AI as an inventor. But is it legally accepted or possible? The Device for Autonomous Bootstrapping of Unified Sentience (DABUS) case provides an answer to this question.

In this case, an AI system was named as the inventor in international and national patent applications, prompting Patent Registrars and Courts around the world to decide whether an AI can be an inventor.

In Europe, the European Patent Convention (EPC) does not define "inventor". Nevertheless, Article 60(1) provides that the right to the patent belongs to the inventor or their successor in title, and considers the case where the inventor is an employee. Only humans have successors and can be employees.

Article 60(2) of the referred convention concerns cases where the invention is made by multiple inventors and refers to them as persons.

Thus, the position of the EPO Legal Board of Appeal regarding the DABUS case<sup>15</sup>, which concluded that under the EPC the inventor must be a person with legal capacity, was foreseeable.

In the United Kingdom (UK), the law refers to the inventor as the "deviser of the invention", namely, "whoever" has contributed to the inventive step as interpreted by the courts. The DABUS case<sup>16</sup> offered the UK courts the opportunity to clarify this definition, determining on September 21, 2021, that an inventor must be a person.

<sup>&</sup>lt;sup>10</sup> CJEU 12 September 2019, C-683/17, §29-32.

<sup>&</sup>lt;sup>11</sup> Case C-5/08, Infopaq International A/S v Danske Dagblades Forening (2009).

<sup>&</sup>lt;sup>12</sup> Case C-403/08 and C-429/08 Football Association Premier League Ltd et al v. QC Leisure et al (2011).

<sup>&</sup>lt;sup>13</sup> Case C-604/10 Football Detaco Ltd etal., v Yahoo! Etal (2012).

<sup>&</sup>lt;sup>14</sup> Case C-145/10 Eva-Maria Painer v. Standard Verlages GmbH etal. (2013).

<sup>&</sup>lt;sup>15</sup> Case J 0008/20, < https://www.epo.org/law-practice/case-law-appeals/recent/j200008eu1.html>.

<sup>&</sup>lt;sup>16</sup> Stephen Thaler v Comptroller General of Patents Trade Marks and Designs [2021] EWCA Civ 1374.

Similarly, in Germany, the Federal Patent Court, which was deciding on the DABUS case, considered on November 11, 2021, that AI-generated inventions are patentable, but a natural person must be named as the inventor<sup>17</sup>.

In the United States, the Court of Appeals for the Federal Circuit<sup>18</sup> and in Australia, the Federal Court<sup>19</sup> have both decided, regarding the DABUS case, that the inventor must be human.

In conclusion, despite the law's ambiguities that gave room for different interpretations, at present, non-humans, such as AI systems, are not entitled to authorship or inventorship.

## **B/** The Legal Personality of AI

## 1. Current Position

Being an author or inventor carries legal rights, which implies having a legal personality. The legal personality entails the benefit of rights and duties. In this regard, addressing several questions beforehand is necessary in order to provide AI with legal personality. Indeed, does it make sense for AI to have the right to a private life?

As a matter of fact, currently, AI does not have legal rights, obligations, and capacities because it has no legal subjectivity. The legal subjectivity is not acknowledged for AI, especially because, for now, AI is not conscious or sentient. AI learns without understanding; it is subjected to logic. It is a legal object and not a legal subject.

It is true that legal personality is not limited to humans. Companies and associations also have legal personality. However, unlike humans, companies, or associations, AI cannot participate in legal transactions, cannot sue or be sued, and consequently cannot be held responsible or liable.

Authorship and inventorship imply the ability to perform all these acts and to be responsible and liable. Therefore, the courts, taking into account the current legislation, cannot provide such a status to AI.

However, with AI becoming smarter at an exponential rate, it is likely that in the near future, it will be able to generate output autonomously, independent of any human involvement.

When that moment arrives, who should be held liable for the damages it may cause?

## 2. Possible Future Directions

The issue of AI legal personality and liability has been discussed by intellectuals around the world for some time, and solutions have been proposed. Some of them are discussed below.

## 2.1 The Innovations of AI are in the Public Domain

This proposal concerns essentially the innovations generated without human intervention. According to the current legal system, if there is no human intervention, there is no author or inventor, and without an author or inventor, no intellectual property protection is available, which directs these innovations to the public domain.

Mauritz Kop, defender of this position<sup>20</sup>, highlights that many companies are innovating using public domain material, while IP rights may slow down the innovation. He considers

<sup>&</sup>lt;sup>17</sup> Case 11 W (pat) 5/21, decision of 11 November 2021.

<sup>&</sup>lt;sup>18</sup> Case 21-2347 of August 5, 2022.

<sup>&</sup>lt;sup>19</sup> Case Commissioner of Patents v Thaler [2022] FCAFC 62.

<sup>&</sup>lt;sup>20</sup> Mauritz Kop, "a robust public domain is an essential requirement for cultural, social, and economic development, a healthy democratic society, and a sustainable information ecology", AI & Intellectual Property: Towards an Articulated Public Domain, University of Texas School of Law, Texas Intellectual Property Law Journal (TIPLJ), Vol. 28, No. 1, 2020. (https://papers.ssrn.com/sol3/papers.cfm?abstract\_id=3409715)

that we are at a stage of IP overprotection, which creates market barriers to start-ups and small and medium enterprises.

The liability question thus shall not be addressed through IP rights, but other laws such as competition law or contract law can be used to regulate the creation and use of these innovations.

#### 2.2 The Extension of Existing Rights

The United Kingdom is one of the few countries where copyright law protects works generated by computer without direct human intervention. For these works, the law states that the author is "the person who undertakes the arrangements necessary for the creation of the work." In other words, the persons who program the AI, configure the AI, operate the AI, select input data such as training data for the AI, or recognize applications of the output of the AI, could potentially be considered human authors/inventors.

This provision is particular to copyrights and limited to the United Kingdom. However, due to the lack of precise definition of author and inventor in most legislations, it could be generalised to all AI-generated innovations and invites judges around the world to be inspired by it.

Additionally, most copyright laws provide protection for "entrepreneurial works," such as broadcasts, films, sound recordings, and published editions. Whenever AI generates a work that falls into one of these categories, it would be protected. For instance, if AI creates a song, the producer of the recording of the song would have an entrepreneurial right, and no authorship issues would arise.

Finally, some countries have database protection that does not require human involvement. If AI generates a database that meets the legal criteria, then there may be a database right associated with it.

# **2.3** Amending the Existing Law to Accept AI's Authorship/Inventorship or Adopting a sui generis Law

Amending the law to explicitly provide that AI can be an author or inventor could be the easiest solution. However, as shown above, it would imply attributing legal personality to an entity that is currently incapable of both enjoying the rights and assuming the duties that come with these qualities. For this reason, this solution is not currently appropriate.

On the other hand, adopting a sui generis legislation is more suitable.

First, it could provide protection to AI-generated innovations without damaging the concepts of human authorship and inventorship, and the requirements of human originality and creativity.

Additionally, it would permit the adaptation of the legislation to the specificities of AI. For instance, a shorter duration of the protection (5 years) is generally defended<sup>21</sup>.

Second, since the AI-generated creations will be commercialised at very attractive prices, they can create situations of unfair competition and consumer deception, as pointed out by Anthoula Papadopoulou<sup>22</sup>. Therefore, if the law ignores this type of creation, it favours abusive behaviour which restricts or distorts competition in the relevant market. A specific law would constrain these creations to the domain of the law.

<sup>&</sup>lt;sup>21</sup> It reflects the capacity of AI to generate new works quickly, and it provides the owners with a sufficiently long exclusivity to encourage investment. At the same, it is short enough to allow its free use once in the public domain.

<sup>&</sup>lt;sup>22</sup> Creativity in crisis: are the creations of artificial intelligence worth protecting?, JIPITEC 12 (3) 2021, <https://www.jipitec.eu/issues/jipitec-12-3-2021/5352>

Third, providing protection to these creations would provide security to the economic agents and encourage the development of innovative technologies, without being compelled to protect them through trade secrets with all the cautions and complexities that this involves.

Providing answers to the legal questions surrounding the protection of innovations generated by AI is essential. Not only because AI innovations have an economic value that justifies their legal protection or regulation, but also because AI, so present in our daily lives, has also entered the judicial process, as we will now see.

II/ The Increasing Presence of AI in the Judicial Process Related to Intellectual Property

Artificial intelligence has been used in the judicial system for decades, but the significant progress we have seen recently in algorithms, illustrated by ChatGPT, is completely transforming the legal profession and the judicial process. This transformation is evident in two ways: in terms of the support AI provides to parties, attorneys and judges (A), and in terms of the replacement AI already offered to judges and attorneys (B), however, this transformation raises the question of respect for the fundamental rights related to justice (C).

#### A/ AI Used as a Support for the Parties, Attorneys, and Judges

AI can support parties both in pre-trial and trial stages of legal proceedings. In the first section, we will examine how AI can both contribute to the violation of IP rights and help prevent such violations during the pre-conflict phase. In the second section, we will analyse how AI can assist lawyers during litigation. Finally, in the third section, we will describe how AI can support judges once a conflict has reached the courts.

#### 1. AI as a Threat and a Defence of IP Rights

Besides the fact that there are various AI tools capable of assisting the common person in comprehending, guiding, and drafting legal documents, such as patent specifications, AI can also be used for infringement or as a support in the protection of IP rights. It is from this perspective that we will focus.

AI can be used for phishing and hacking, predicting passwords, deepfaking someone's voice, and imitating a CEO's voice, among other things. It can also create deepfake music videos, produce fake applications for registration to deceive the IP Office, optimize mass production of infringing copies, identify safe trade routes to reduce the risk of detection by authorities, detect and replicate patterns in visual anti-counterfeiting technology, scan websites to identify popular goods that can be sold on the dark web, and even obtain additional information about the AI used by authorities to detect infringement, in order to overcome detection.

On one hand, AI can be used for phishing and hacking, predicting passwords, deepfaking voices, creating fake applications for registration, optimizing mass production of infringing copies, identifying safe trade routes, and more. However, on the other hand, AI can also be used to block phishing attacks, analyse and recognize visual imagery to identify infringement, maintain a database of registered IP rights, identify risk indicators regarding the importation of infringing goods, distinguish infringing copies from genuine ones sold online, identify infringement patterns, and more.

In summary, AI is a valuable tool for both infringing and protecting IP rights. For cases where the infringement requires the intervention of an attorney, AI can assist in gathering evidence, but its usefulness extends beyond this purpose.

## 2. AI as a support for attorneys

AI is not only speculated to replace lawyers, but it has also become a permanent fixture in law firms. AI is used for document review, contract due diligence review, and legal research.

One of the most significant examples of AI in law firms is Technology Assisted Review (TAR) of documents, which is used during investigations. While documents were initially examined manually, TAR now reviews them, identifying patterns in textual data and selecting the most relevant documents.

However, attorneys still need to intervene to "teach" the system, verifying the accuracy of the document classifications and selecting which documents should be included in the TAR process. Despite this, TAR can quickly analyse countless documents, efficiently resolving the issue of voluminous evidence and streamlining the discovery process.

Data or predictive analytics, which predict how a judge may decide in a specific case, is also a good example of the major role AI plays in this phase. For instance, AI predicted case rulings at the French Supreme Court with an accuracy of  $92\%^{23}$  and at the US Supreme Court with  $71.9\%^{24}$  accuracy.

Lexis Machina is the most prominent player in this field, created to analyse decisions on patents and later extended to other law areas, including trademarks. For patents, it extracts the patent at issue, the attorneys, judges and parties, and legal data, including damages awarded, to predict how a future case may settle.

Ravel Law is also an interesting case as the AI advises on the most effective language to use depending on the judge and the court.

Indubitably, AI and attorneys are working together. It is not a replacement of one for the other, but a cooperation.

As recalled by Michael Legg and Felicity Bell, human decisions, particularly attorneys' decisions, result from prediction and judgement. Judgement depends on experience, empathy, creativity, morals, and consequences for the client. AI can perform predictions but are unable to perform judgement. In this regard, presently, AI can only assist the attorneys.

Furthermore, AI predictions do not rely on legal reasoning or facts of the case, but on data and facts from other cases. They are based on past decisions, do not consider settled cases, and for small jurisdictions, the decision cases are insufficient to have reliable predictions.

## 3. AI as a Support for Judges

The use of AI in courtrooms is becoming increasingly common. Australia, China, the United States, the United Kingdom, Ireland, Estonia, Mexico, and Brazil are among the countries where AI systems are being developed, tested, and adopted in the legal system. Below are some examples of such AI systems.

First example, TAR. Its use in litigation process was approved by various decisions worldwide, such as in Australia, with the case *McConnell Dowell Constructors v Santam*<sup>25</sup>, the United States, with the case *Da Silva Moore v Publicis Groupe*<sup>26</sup>, Ireland, with the

<sup>&</sup>lt;sup>23</sup> Octavia-Maria Sulea et al, Predicting the Law Area and Decisions of French Supreme Court Cases [2017] arXiv:1708.01681 [cs] <a href="http://arxiv.org/abs/1708.01681">http://arxiv.org/abs/1708.01681</a>

<sup>&</sup>lt;sup>24</sup> Daniel Martin Katz, Michael J Bommarito Ii and Josh Blackman, A General Approach for Predicting the Behavior of the Supreme Court of the United States (2017) 12(4) PLoS ONE.

<sup>&</sup>lt;sup>25</sup> Case McConnell Dowell Constructors v Santam (2016) 51 VR 421; [2016] VSC 734.

<sup>&</sup>lt;sup>26</sup> Case Da Silva Moore v Publicis Groupe 287 FRD 182 (SDNY, 2012).

case Irish Bank Resolution Corporation Limited v Quinn<sup>27</sup>, and England and Wales, with the case Pyrrho Investments Ltd v MWB Property Ltd<sup>28</sup>.

Other AI systems, such as Automated Online Dispute Resolution (ODR), are also good examples. ODR consists of online alternative dispute resolution (OADR) and online courts. ODR uses technology to facilitate the resolution of disputes between parties, including automated negotiation, where AI takes over certain aspects of a negotiation, or assisted negotiation, where AI acts as a mediator by providing parties with specific advice, for instance.

The Civil Resolution Tribunal<sup>29</sup> in British Columbia, Canada, and the Traffic Penalty Tribunal (TPT)<sup>30</sup> and Money Claim Online (MCOL)<sup>31</sup> in the UK are successful examples of ODR. While the TPT is not specifically related to IP, the Civil Resolution Tribunal and MCOL can be useful in resolving IP disputes between parties.

On the other hand, due to the concerns regarding its accuracy and potential biases, risk assessment tools, such as the Correctional Offender Management Profiling for Alternative Sanctions (COMPAS) used in some US jurisdictions, are an example highly controversial. These AI predict the future behaviour of individuals accused of having violated the criminal law and determine their recidivism risk and violent or misconduct risk. Their predictions are based on factors such as, education and employment, family, socioeconomic and geographical background, and association with convicted criminals. COMPAS for instance, has been used to assess over one million offenders in the US criminal justice system.

Much less debated are the examples of the EXPERTIUS system in Mexico and the Victor Project in Brazil. The EXPERTIUS system, which is related to family law, advises judges and clerks on whether a plaintiff is eligible for a pension. The Victor Project, which has been in use by the Federal Supreme Court of Brazil since 2018, is a triaging and allocation system that has enabled considerable time savings in judicial work in a court that had 80.1 million cases awaiting determination in 2017 alone.

Finally, we cannot fail to mention AI-supported legal research, AI-supported drafting of decisions, and electronic filing (e-filing) of documents, which are already widely utilised in court proceedings. It is interesting to note that e-filing has not only reduced or eliminated reliance on physical documents, but it has also reduced errors, as AI can identify errors in a document and increased efficiency.<sup>32</sup>.

In summary, AI is extensively used by all parties involved in pre-litigation and litigation issues related to IP. AI intervenes as a support, in the sense that it requires the intervention/validation of a human (TAR), or it works autonomously but for specific and limited functions (MCOL). Having said that, we cannot ignore that AI has a new status in the courtrooms, ready to become even more preeminent.

#### B/ AI as a Substitute of Human Attorneys and Judges

Recently, AI has emerged as a potential substitute for human attorneys (1) and judges (2).

<sup>&</sup>lt;sup>27</sup> Case Irish Bank Resolution Corporation Limited v Quinn [2015] IEHC 175.

<sup>&</sup>lt;sup>28</sup> Case Pyrrho Investments Ltd v MWB Property Ltd [2016] EWHC 256 (Ch).

<sup>&</sup>lt;sup>29</sup> <https://civilresolutionbc.ca/>.

<sup>&</sup>lt;sup>30</sup> < https://www.trafficpenaltytribunal.gov.uk/>.

<sup>&</sup>lt;sup>31</sup> <https://www.gov.uk/government/publications/money-claim-online-user-guide/money-claim-online-mcol-user-guide>.

<sup>&</sup>lt;sup>32</sup> The UK Crown Court reported that filing errors in divorce matters reduce from 40% to less than 1%, and the speed to file the claims reduced from 15 days to 10 minutes.

#### 1. Can AI Replace Human Attorneys?

The first robot lawyer came close to defending its first court case in the United States. If it had happened, it would have been an anthropological revolution, although its importance in legal terms is debatable.

First, its performance would have been confidential as only the defendant would have known that they were being represented by AI. The defendant would have worn smart glasses to record the court proceedings, and a headset for the AI to communicate what to say.

Second, its action would have been due to a loophole concerning "hearing accessibility standards" that permits the use of Apple AirPods in the courtroom, rather than explicit legal permission.

Third, legal practitioners have tested the robot lawyer's professional abilities and concluded that the services provided are of low quality and sometimes inaccurate. This is due to the fact that the technology involved, including several AI text generators such as ChatGPT and DaVinci, is still in development.

Aware of the rapid evolution of technology, it is likely that the weaknesses of today's robot lawyers will be corrected in the near future. However, even if AI lawyers become a reality, their role will be limited to simple cases, as in more complex cases requiring judgement, it is believed that AI will still be incapable of developing complex and persuasive legal arguments. Thus, the question is not if AI will replace attorneys but rather how their collaboration will operate.

#### 2. My Judge is a Robot?

Many court decisions related to common and routine cases are predictable. Default judgments, statements of inadmissibility, and many other cases that require a simple assessment without a hearing are among those cases. They are numerous, simple, and often not decided within the desired timeframes. Thus, AI appears as an attractive solution to clear the court backlog, leaving more time for human judges to decide on more complex disputes.

In this regard, the UK has been working on creating an online court that would handle simple problems and issue a predetermined penalty without the involvement of a magistrate<sup>33</sup>. However, its implementation remains to be done.

Furthermore, Estonia has developed and tested an AI to automatically hear and decide on small claims disputes (less than  $\notin$ 7,000). Its decisions are intended to be automatically executed, without the control of a human judge. The AI's function closely resembles that of a human judge, leading to many comments, some of them alarmist. This led the Estonian Ministry of Justice to issue an official statement<sup>34</sup> assuring that Estonia is not developing an AI judge.

China is also actively developing AI to automate its legal system, including the judge position. The most notable example is the Smart Court system, which connects all judges in China and provides them with recommendations on relevant law and jurisprudence, draft documents, suggests sentences based on similar cases, and corrects errors in verdicts.

<sup>&</sup>lt;sup>33</sup> UK Ministry of Justice, *Transforming our justice system: assisted digital strategy, online conviction and statutory fixed fines,* <a href="https://consult.justice.gov.uk/digital-communications/transforming-our-justice-system-assisted-digital/">https://consult.justice.gov.uk/digital-communications/transforming-our-justice-system-assisted-digital/</a>>

<sup>&</sup>lt;sup>34</sup> Estonian Ministry of Justice, *Estonia does not develop AI Judge*, <https://www.just.ee/en/news/estonia-does-not-develop-ai-judge>.

None of these cases go as far as the Colombian judge, Juan Manuel Padilla, who, after inquiring ChatGPT on a children's medical rights matter, accepted its response and included it as a basis in his ruling.

The examples above illustrate how AI is progressively becoming more important in the legal system. However, we are still far from having robot lawyers and robot judges due to the current inefficiencies of AI technology, and because fundamental rights are at stake.

## C/ AI, Justice, and Fundamental Rights

The use of AI in litigation procedures raises essential questions regarding fundamental rights. Some of these questions will now be addressed.

## 1. The Client Confidentiality

The use of AI, such as ChatGPT, by attorneys in litigation proceedings has many benefits, as we have seen above, but it also has many drawbacks. Among the main ones, we highlight security, client privacy, and privilege rights.

Attorneys will transmit confidential information to the AI, and the chatbot will store this as data. Therefore, attorneys should be careful to consult the AI's Privacy Policy and Terms of Use to ensure they are not violating their clients' rights.

## 2. The Right of Access to Justice

The right to access justice is a fundamental human right, and AI can be a helpful tool in increasing access to justice by reducing costs and time spent on legal procedures.

However, the question of whether justice is truly accessed when a case is judged by AI is a complex one. A judge is traditionally seen as a human being who possesses certain skills, knowledge, and experience that are essential to the proper administration of justice. Judges are not only responsible for making legal decisions but also for ensuring that the parties are heard, that the facts are established, and that justice is done. Therefore, the use of AI in the judicial process raises important concerns about the role of judges and the extent to which they can be replaced by machines. Consequently, the following question arises: Would it be accurate to say that justice is served when a case is judged by AI?

Additionally, considering the case of COMPAS, which is currently facing criticism for proposing discriminatory decisions, can we still consider that we have access to justice if the principle of equality is not respected?

## 3. The Right to an Independent and Impartial Tribunal

The right to an independent tribunal, which is indispensable in a democratic system, implies an independent judge. In the case of AI, ignoring the fact that it is not a *strictu sensu* judge according to current understanding, is it legally correct to accept that an AI judge is independent when, without its own volition, AI only follows an algorithm?

## 4. The Right of Defence, the Principle of Contradictory and the Right to Appeal

Finally, the right to defence and the principle of contradiction, omnipresent in court cases, require access to presented material, the ability to examine and challenge it, and the right to question court decisions and appeal against them.

But does not the fact that AI is a black box that makes it impossible to verify the accuracy of its decision-making or advice processes, and because access to the referred black box is restricted by property rights, violate the right of defence, the principle of contradiction, and the right to appeal?

#### Conclusion

The technological revolution we are experiencing is unparalleled in history, with artificial intelligence posing unprecedented challenges and disruptions to the world of law, particularly in the realm of intellectual property law.

This raises essential questions about the role of humans in innovation and legal professions, and the potential legal personality of AI.

It also calls for careful consideration of liability for damages caused by innovations that surpass human capabilities.

However, it is important to recognize that AI can be highly beneficial in the legal world, particularly in simple court cases. As Laure Dupuy wisely states, we must not build barriers for AIs, but instead draw them highways.

Therefore, it is crucial to establish rules that regulate the use of AI to prevent any violations of fundamental rights. To this end, it is essential to establish legal links between AI and a human, such as its creator, owner, or user.

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**Inventa** is a leading Intellectual Property Law Firm, specialized in the protection and internationalization of trademarks, patents, industrial designs, copyright, and domain names. With over 50 years of experience in Portugal, the European Union and all the African jurisdictions, Inventa has served thousands of clients holding large trademark and patent portfolios, and other entities dealing with RD daily.