

# ENCODE YOUR LEGAL PRACTICE



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# SELECTED STUDENT'S PAPERS (2022/2023)

2024



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## Preface

Over the last three to four years, we have witnessed an increasing enthusiasm with AI. This technology left the circle reserved for experts and entered the life and imaginary of the common person, namely through a very attentive media.

The current frenzy is mostly due to some recent developments that made possible a massive application of AI to almost every dimension of our private and social life. These breakthroughs put Law professionals and scholars, as well as computer scientists and AI experts, before two questions: *(i)* what has the Law to say about the use of AI in our everyday life? *(ii)* how and for what purpose can AI be applied to the various features of Law?

The Postgraduate course on “AI in Legal Practice and Its Regulation” is intended to address these two questions. By adopting a problem-based methodology of sharing knowledge, the purpose of the course is ultimately to bring together a group of people to think and critically appraise the legal issues raised by the use of AI and the immense possibilities AI opens to the practice of Law. The first set of topics includes the general regulation of AI, but also specific problems concerning liability, intellectual property and competition law, just to name a few. From an AI applied to Law perspective, students are invited to assess and wonder how AI tools may be deployed to improve case management, the drafting of contracts or pleadings, for instance.

The first edition of the course took place in the academic year 2022/2023. A very passionate group of students had the privilege and accepted the conundrums of being pioneers, in an unparallel programme, unique in Portugal and with few competitors around the world. Lecturers and students did an amazing job and paved the way to the second edition (2023/2024), in which the number of participants duplicated and the experience from the past was put to good use.

By the end of the programme, students were invited to write a paper about a topic covered during lectures. This e-book contains three selected papers of the total number submitted to assessment. The criteria that guided the selection was the relevance of the topic and merit of the work. This publication honours the efforts and courage of the group of people, lecturers and students, that made the first edition of the course possible and a significant success. At the same time, it makes available to public a relevant piece of research in a subject matter in expansion.

This publication will become a tradition. Students that took part in the second edition of this course are at this very moment writing their papers, and we are sure that many of them will appear in the e-book of 2023/2024.

To those who embarked on this project we express our gratitude. To those who are considering joining, please know that you are very welcome.

Lisboa, July 2024

Paulo de Sousa Mendes  
João Marques Martins

## **COPYRIGHT AND AI TRAINING: FAIR USE OR ABUSE?**

*Cláudia Lima Costa<sup>1</sup>*

*We are asked to advise the United States Copyright Office in connection with the Class action against GitHub, Microsoft and Open AI, Getty vs. Stable AI, and Class action Andersen and others v. Stability, Inc. We are instructed to deliver a legal opinion with reference to a particular question which is nuclear in these legal actions - The use of copyrighted materials in the training of generative deep learning AI models without consent of the owner of the materials can be deemed in any circumstance a lawful use?*

*Our legal opinion has the following structure. Firstly, introduces a briefly description of what are Generative Deep Learning Models and how their algorithms are trained. Secondly, it presents the main legal features of the legal frameworks in the E.U. and USA with relevance to our analyses. Thirdly, it applies both legal regimes to the pending legal actions at hand.*

### **1. GENERATIVE DEEP LEARNING MODELS AND TRAINING PROCESS**

The Generative Deep Learning Model generates new data from a large amount of data that was used to train the algorithm (Franceschelli and Musolesi, 4) and resembles a given training dataset (ChatGPT, 2003). This model learns to find the underlying patterns and structures of the training data and then generates new samples that possess similar characteristics (ChatGPT, 2003).

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There are two main models: Generative Adversarial Networks and Variational Autoencoders. The first one uses a generator to take random input noise and generates new samples, and a discriminator which tries to distinguish between the generated samples and real data from the training set (ChatGPT, 2003). The first do not access to the real data, and the second is trained on them to learn how distinguish original data and generated ones (Franceschelli and Musolesi, 3).

The Variational Autoencoders are probabilistic models that learn to encode input data into a latent space, and then decode samples from that latent space back into the original data space (ChatGPT, 2023).

During the process of training, a big amount of data is collected and selected, and then, stored in the memory until of the end of the training. After that, the algorithm extracts information, patterns and structures and generates new data from this data set. This set has unstructured data, which means the features of the input data do not need to be labeled, which grants greater autonomy to the algorithm (Franceschelli and Musolesi, 3).

## **2. COPYRIGHT LAW IN THE U.E. AND USA**

Copyright is the result of the intellectual creativity of the author and aims to protect the intellectual work (Leitão, 45).

In the E.U. the main legal framework in this matter is the Directive 2001/29/EC which was transposed by the Portuguese Decree-law no. 63/85, of March 14, named Portuguese Copyright Code. This law protect intellectual creations in the literary, scientific and artistic domain.

Copyright comprises rights of economic nature and rights of personal nature. The author has the exclusive right to dispose of, to divulge, to publish and economically exploit it by any means, directly or indirectly. The author has, among others, the exclusive right to make or authorize, by himself or by his representatives, any use in a different work, and the direct or indirect reproduction, temporary or permanent, by any means and in any form, in whole or in part. Regardless of patrimonial rights, and even after their transmission or extinction, the author enjoys moral rights over his/her work, namely the right to claim its paternity and to ensure its genuineness and integrity (pursuant article 9 and 56 of Portuguese Copyright Code).



As a general rule, the author has to authorize the reproduction of the work by third parties, unless some requirements are met that fall into the exception of article 5 of the Directive 2001/29/EC and article 75 and 76 of Portuguese Copyright Code. According to those articles, the reproduction of a work without consent of the author is permitted for temporary acts of reproduction which are transient or incidental and an integral and essential part of a technological process, and whose sole purpose is to enable a lawful use of a work which has no independent economic significance. The CJEU argues that certain acts of temporary reproduction carried out during a “data capture” process fulfil the requirements of the exception for temporary copies (Bonadio and McDonagh, 3).

In the USA the main legal framework is the Copyright Act of 1976. Pursuant to section 106, the owner of copyright has the exclusive rights to do and to authorize reproducing the copyrighted work in copies or phonorecords, to prepare derivative works based upon the copyrighted work, to distribute copies or phonorecords of the copyrighted work to the public by sale or other transfer of ownership, or by rental, lease, or lending.

It is similar to the European regime.

An important exception to this rule exists, named *fair use*. Section 107 defines what is considered fair use of a copyrighted work, a use by reproduction in copies or phonorecords or by any other means specified by that section, for purposes such as criticism, comment, news reporting, teaching (including multiple copies for classroom use), scholarship, or research. In determining whether the use made of a work in any particular case is a fair use the factors to be considered shall include the purpose and character of the use, including whether such use is of a commercial nature or is for nonprofit educational purposes, the nature of the copyrighted work, the amount and substantiality of the portion used in relation to the copyrighted work as a whole, and the effect of the use upon the potential market for or value of the copyrighted work.

The determination of fair use is often subjective and it depends on factors like the purpose and nature of the use, the amount and substantiality of the portion used, and the potential impact on the market for the original work (ChatGPT, 2003). This has some advantages and disadvantages. Advantages: incentives the creation of new works,

improves public's ability to use or access it. Disadvantages: it depends on case by case analysis (Netanel, 4).

#### **D) MAIN FACTS OF THE PENDING LEGAL ACTIONS**

**Class action against GitHub, Microsoft and Open AI.** Plaintiffs are software developers who challenge Defendants' development and operation of Copilot and Codex, two artificial intelligence-based coding tools. The Court accepted as true the following facts: GitHub, which was acquired by Microsoft in 2018, is the largest internet hosting two artificial intelligence-based coding tools. Using GitHub permits software developers or programmers to collaborate on projects stored in repositories. Repositories may be private or public; anyone can view and access code stored in public repositories. All code uploaded to GitHub is subject to the GitHub Terms of Service, which provide that users retain ownership of any content they upload to GitHub, but grant GitHub the right to store, archive, parse, and display the content, and make incidental copies, as necessary to provide the Service, including improving the Service over time. This includes the right to do things like copy the code to their database and make backups; show it to the owners and other users; parse it into a search index or otherwise analyze it on their servers; and share it with other users. Further, the Terms of Service provide that users who set their repositories to be viewed publicly grant each User of GitHub a nonexclusive, worldwide license to use, display, and perform the content through the GitHub Service and to reproduce the content solely on GitHub as permitted through GitHub's functionality. Plaintiffs have each published licensed materials in which they hold a copyright interest to public repositories on GitHub. When creating a new repository, a GitHub user may select one of thirteen licenses from a dropdown menu to apply to the contents of that repository. Two of the suggested licenses waive copyrights and related rights. The remaining eleven suggested licenses require that any derivative work or copy of the licensed work include attribution to the owner, inclusion of a copyright notice, and inclusion of the license terms, as in the case of the plaintiffs.

The problem is that, Codex and Copilot were not programmed to treat attribution, copyright notices, and license terms as legally essential.

Copilot reproduces licensed code used in training data as output with missing or incorrect attribution, copyright notices, and license terms. Allegedly, this violates the open-source licenses of “tens of thousands—possibly millions—of software developers.”

**Getty vs. Stable AI.** We can read in the claim that, this case arises from Stability AI’s brazen infringement of Getty Images’ intellectual property on a staggering scale. Upon information and belief, Stability AI has copied more than 12 million photographs from Getty Images’ collection, along with the associated captions and metadata, without permission from or compensation to Getty Images, as part of its efforts to build a competing business. As part of its unlawful scheme, Stability AI has removed or altered Getty Images’ copyright management information, providing false copyright management information, and infringed Getty Images’ famous trademarks. Getty Images brings this action to recover damages that it has suffered and is continuing to suffer, and to prevent the irreparable harm caused by Stability AI’s intentional and willful acts.

**Andersen et al v. Stability AI Ltd. et al.** The Claimants alleges that, Stability downloaded or otherwise acquired copies of billions of copyrighted images without permission to create Stable Diffusion, including Plaintiffs’. These images are defined as “Training Images.” By training Stable Diffusion on the Training Images, Stability caused those images to be stored at and incorporated into Stable Diffusion as compressed copies. Stability made them without the consent of the artists and without compensating any of those artists. When used to produce images from prompts by its users, Stable Diffusion uses the Training Images to produce seemingly new images through a mathematical software process. These “new” images are based entirely on the Training Images and are derivative works of the particular images Stable Diffusion draws from when assembling a given output. These resulting derived images compete in the marketplace with the original images.

## **E) APPLICATION OF THE LEGAL FRAMEWORK TO THE PENDING LEGAL ACTIONS**

Training Generative Deep Learning algorithms implies the copy, storage and reproduction of copyrighted materials. As a general rule, this

requires the previous consent of the owner, either in the European Union or in the USA. In spite of that, both jurisdictions have exceptions, which constitutes limits and restrictions to the copyright to accommodate other values and interest that are important. Patrícia Akster explains that, these limits are justified because of the research, study and knowledge purposes (Akster, 152).

As we already referred, in the E.U. it is allowed the reproduction of any work under certain circumstances: the act of reproduction has to be transient or incidental, an integral and essential part of a technological process, the sole purpose is to enable a lawful use of a work or other subject-matter to be made, and the non-existence of independent economic significance. First question, what means to be transient or incidental. Recital 33 says this exception should include acts which enable browsing as well as acts of caching to take place, including those which enable transmission systems to function efficiently, provided that the intermediary does not modify the information and does not interfere with the lawful use of technology, widely recognized and used by industry, to obtain data on the use of the information. According to Dominic Young (2), this wording was related to copies in routers, the data is copied, but only for as long as needed for the router to function. Thus, we may conclude that, the reproduction of copyright materials used to train algorithms do not fall into this exception. Patrícia Akster (14) explains that, the European Court defends an restrictive interpretation of this limitation, as we can see in the case of *Public Relations Consultants Association Ltd and Newspaper licensing Agency Ltd.*, “Article 5 of Directive 2001/29/EC of the European Parliament and of the Council of 22 May 2001 on the harmonisation of certain aspects of copyright and related rights in the information society must be interpreted as meaning that the copies on the user’s computer screen and the copies in the internet ‘cache’ of that computer’s hard disk, made by an end-user in the course of viewing a website, satisfy the conditions that those copies must be temporary, that they must be transient or incidental in nature and that they must constitute an integral and essential part of a technological process, as well as the conditions laid down in Article 5(5) of that directive, and that they may therefore be made without the authorisation of the copyright holders.” Schonberger (6) argues that, copying the works for the training process, deleting them at the end

of the process would be included in this exception, but miners have to retain the data for verification (Chiou, 6).

Taking these arguments into consideration, we may conclude that, the use of data is not just transient or incidental; it is used for a certain period of time to train the algorithm.

Second, it can be deemed as an integral and essential part of a technological process.

Third, the sole purpose can be a lawful use of a work or other subject-matter to be made. A fourth requirement can be harder to meet, to have an independent economic significance. The majority of the AI products and services are traded, and they have economic significance.

Applying these requirements to the pending actions, all four AI-based tools used copyrighted data to train their algorithms, and it was not incidental or transient. The data to train the algorithms has to be stored for the time period necessary for them to learn, therefore, it cannot be deemed incidental or transient. The data is one of the most important elements of the technological process, and it has to be kept for a certain period of time to fulfill its purpose. Additionally, in all cases, we are referring to tools with relevant and independent economic value. Thus, at least, in our opinion, these two requirements are not met; therefore, this exception cannot be applied to these cases under European law.

The version of [AI Act dated from January, 26th 2024](#), approved by the Council of European Union addresses this issue stating that, these models will need to put in place a policy to respect Union copyright law, as well as make publicly available a sufficiently detailed summary about the content used for training of the general purpose AI model, based on a template provided by the AI Office.

From an American perspective, some American legal doctrine (Kretschmer and Margoni, 6) argues the insubstantiality theory. According to this theory machine learning refers to the use of ideas, principles, facts, and correlations contained in data given in input. So, since copyright aims to protect original expressions and not ideas, procedures, or methods, data mining techniques do not use copyright works as works *per se*, but to access the information stored in them, and so the use is not substantial. As a consequence, it would not be a violation of the copyright. This should be deemed as non-expressive

use that must be considered fair, since it is just about deriving from them meta-level information and not benefiting from their original expression (Sag, 5). The problem is that, this cannot be exactly correct, sometimes generative techniques could use authors' copyrighted expressions (Bonadio and McDonagh, 3). We do not agree with this theory, the Generative Deep Learning is used to analyze the data and to find patterns, structures, expressions, etc, and they all are part of the expression of the author. They are a result of a certain of thinking and to express.

It is also argued that, a large number of protected works are used together, so, the result will not present their distinctive features. For this reason, it becomes difficult to connect the generated work with the protected ones used during training. In spite of being true this argument, this is only the result of the use of copyright data, and it does not exempt the user of asking for permission to use the data. Additionally, if a large amount of the work is copied, probably it will not be deemed fair use. Also, if the copier makes profits that should be available to the copyright owner this cannot be deemed fair use either (Torrance and Wilson, 16). So, some cases the reproduction of copies may be considered as a fair use, but mostly not.

Some legal doctrine developed the concept of fair training which protects the AI's ability to learn and to develop because the use of copyrighted works is crucial to training the AI. Also, AI transforms the copyrighted works and generates new and original works based on what it has learned, rather than copying or replicating existing works. Additionally, the new and original works are not copies of the original, therefore, a commercial exploitation does not exist (Torrance and Wilson, 17). We do not agree with this theory because the development of AI cannot cause damages to the pre-existing rights of human beings, there are some ethical, moral and legal limits that should be respected.

## **F) Final Remarks**

In our opinion, according to the existing laws, the developers have to request permission to use the copyrighted materials, make the necessary mentions referring to the authors, and pay the necessary compensations. The proposed version of European AI Act available underlines the same.

The creation is an expression of a human being, and AI will produce new data analyzing the patterns and structures of the creation or even using the same expressions; therefore, it is somehow a derivative work or a copy in some parts. Also, the production of new data does not fall under the exceptions foreseen in both jurisdictions. As a consequence, the claimants must be held liable for any damages caused.

This does not mean that the problem is solved, and we have adequate laws to deal with these issues. On the contrary, the current laws must be amended because they do not capture the true essence of AI and the way it works, and they do not properly consider how human beings and AI are now interacting and producing.

Nowadays, several authors are explaining that we are experiencing a distributed morality (Floridi, 2), a distributed cognition (Hayles, 23), a work of many hands (Conradi, 80).

Currently, human beings and AI are producing services and products together (Wilson and Daugherty, 166 and 170,) and we cannot identify who did what; we only know there is a product or service as a result of a close and unexplained interaction of humans and machine actions.

As we already defended, AI is a tool (Braun, Archer, Sorondo, 3)—a complex and unpredictable tool, but a tool. AI only sees the world as data, and it only shows us probability as a result of an analysis of all the data we feed them too (Lycett, 381). In our view, AI is a product of the type of society we are living in. We are hyperconnected with each other; we have a lot of information available, and everything happens really fast. AI is a product of a new way of living (Braun, Archer, Reichberg, 9) and AI is only an expression of the human being, their thoughts, their patterns, and their structures. AI analyzes all the data that is produced by human beings, and gives us a result based on that. AI is not a super machine better than us, almost human, or a machine that will supersede human beings; it is only a complex and sophisticated tool that helps us with our memory, storage, and analysis. AI does not have emotions, empathy, moral or even spirituality (Miranda, 23).

However, humans feed AI with their data and train with their initial algorithms, and AI gives us a result that we choose to use or not. We are allowing the development of AI in spite of all the risks that it may represent, and it should be decided as a community. As a conclusion, AI is a collective product; the decision to use it must be a collective

decision, and the assumption of their risks must be collective, as well as, their creations.

We, as a community, create AI, therefore, their gains and losses shall be fairly distributed. If we assume the risk of using it in spite of being unpredictable, all of us should be accountable for the damages that may be caused to an individual, or a group of individuals or to the society. As such, following this line of thinking, in the cases at hand, the new data is extracted from existing data which is protected by Copyright law, therefore, this data can only be used with the consent of the rightsholders, and the result of it should be owned by the people who provide the data, who created the dataset, and the people who are involved in the creation of the algorithms. In our opinion, we have a collective work here, and all of them should be recognized as their authors and compensated. The current notions we have of derivative work or collective work within copyright law shall be rebuilt and adjusted to this new reality, to this new tool, to this new community. Before a tool so sophisticated, our community, each individual, and our law systems should be transformed and to become more sophisticated as well, otherwise, it is like to fight a nuclear war with bows and arrows. The answer is not in the current system. AI will not supersede humans, only humans can supersede humans. To manage, to supervise the creations and/or to distribute the fair compensations, an organism must be created, or the existing ones must be rebuilt, like the collective management system created by Portuguese Law 26/2015, of April 14.

The holders of copyrights and the creators of new data should be considered jointly as authors of a complex creation that uses data from previous authors, algorithms and techniques of developers and the unique way of AI operating. It can become even more complicated if they are using data from public domain as well or not copyrighted materials. However, we believe, this is the path to be analyzed, developed and matured to answer properly to the challenges posed by AI.

The authors of copyrighted materials should give their consent to be used, and should be considered authors of the new creations as well. The economic compensation shall be fairly distributed among them, and the other relevant participants in the creation.



## **Conclusion**

In our opinion, the use of copyrighted materials in the training of generative deep learning AI models without the consent of the owner of the materials cannot be deemed a lawful use, as a general rule. Their use hardly falls into the exceptions foreseen in the European Union System or the USA System. We believe that, we are before collective creations or a creation of many hands in a new and sophisticated interaction between machines and humans, with humans in the center, maintaining supervision and nuclear decisions intact. These new creations belong exclusively to humans, but not to an individual or a linear group of individuals, but to a mixture of individuals, data and AI tools. The tools mentioned in the three legal actions are sophisticated and a collective creation. It should be treated as such. The new legal framework should be inspired by this new type of intellectual creation.



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# AI & LIABILITY: A BRIEF STUDY ON AI NON-CONTRACTUAL CIVIL LIABILITY<sup>1</sup>

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## **Abstract**

We live in an ever-changing world, with AI leading this technological coup. Aware of its importance, the EU is working to develop a trustworthy AI legal framework comprising, amongst others, the creation of harmonised rules on liability issues related with AI Systems (*ie*, the AI Liability Directive). In drafting said directive proposal, an intense debate arose within the EU about the liability paradigm on which these rules should be construed, putting under the spotlight the dichotomy of fault-based liability *vs* strict liability. Hence, politically encumbered with the double mandate of promoting trust in AI and not disproportionately hindering its development, the EU sought an adequate balance between the values at hand by means of a staged approach, through which the AI Liability Directive will primarily force Member States to adopt national measures to alleviate the burden of proof for claimants, reserving, for the future, a re-assessment of these rules to decide whether this civil liability framework should evolve into (or include) a strict liability harmonised set of rules for AI Systems, buckled with mandatory insurance. As such, the rules foreseen today are targeted for fault-based claims for damages. Although fair and useful solutions can be found amongst these new rules, sometimes anchored in somewhat singular legal instruments, the truth is that the AI Liability Directive appears to be faulty, at best, containing also provisions which appear to be excessively burdensome or, in some cases, void of practicable

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<sup>1</sup> Originally prepared as a final paper in the «*AI in Legal Practice and its Regulation*» Post-Graduate Course (2022/2023), at the Law Faculty of the University of Lisbon, within the scope of its module on AI and Liability, lectured by Professor PAUL DE HERT (Professor at Vrije Universiteit Brussel and Associated Professor at Tilburg University), and Professor FRANCISCO ANDRADE (Professor at the Law Faculty of the University of Minho).

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application. Thus, much work must yet be done until this proposal becomes EU law. As for the existing Portuguese provisions on fault-based non-contractual civil liability, there are indeed some coordinates that could be used here, however, a closer look shows that no existing rules are truly adequate, as the architecture of our legal manor is not prepared to accommodate such disruptive new tenants.

## 1. PRELIMINARY REMARK: A FLASHFORWARD

As this article has evolved from a paper originally prepared about a year ago, one cannot disregard the temporal immensity such a short period can represent in the timeline of AI. Indeed, from EU's legislative landmarks to commercial wars between West and East (not overlooking Wall Street's hype), AI has been one of the dominating forces in the legal and geopolitical landscape in recent years. Indeed, topping these recent developments is, from the standpoint of this article, the approval, by the EP, on 13 March 2024, of the AI Act, a regulation adopting a risk-based approach aiming to ensure that companies releasing products in this context comply with EU law before they are made available to the public. Nonetheless, as it had been foreseen, this piece of legislation is not being welcomed with opened arms by its addressees, including not only tech moguls but also smaller companies trying to enter (or survive in) the market. In fact, as expected, the AI Act, albeit being an undeniable historic landmark in the regulation of AI, can also leave a bittersweet taste for some. Aside the tech giants, who have the means to comply with the various obligations under the AI Act, many medium and small players are worried with the practical meaning of the AI Act. If, on the one hand, there are reasons to cheer the gains in transparency and ethics, on the other hand, there are also concerns that an excessively burdensome framework could impair competition by squashing more modest players, unable to meet the costs of the obligations to which they will become subject while still gathering the financial resources necessary to pursue their respective commercial activities.

In light of the above, the EU should, *mutatis mutandis*, cautiously weigh the advantages and disadvantages inherent to such a solution when drafting the final version of the AI Liability Directive. The sagacity with which the EU is seeking to approve AI rules before any potential competitor (be it the United States, China, or any other region or country)

should not jeopardise the quality of the rules being created. The EU cannot be overwhelmed by the potential risk of being in the back seat of the technological race we are witnessing, trying to compensate it with a gold medal in the legal race. The EU should aim at legal excellency, not legal velocity, since a well drafted and widely accepted AI Liability Directive will serve better the interests of EU citizens. As ancient words teach us, he who hurries falls, and winds up late.

## 2. A FIRST STAGE UNDER EU LAW

### 2.1 Preliminary remarks

#### 2.1.1 Background

The world we live in is in constant and rapid change, with technology steering the wheel of innovation like never seen before. The Fourth Industrial Revolution is no longer an abstract and futuristic idea to be debated in classrooms or board meetings, but rather a very palpable (however often dematerialised) reality which is swiftly engulfing our day-to-day lives. As a result of this technological coup, unseen (and occasionally unbelievable) technologies are constantly piercing the realms of Law over whose ancient pillars our modern societies have been built on. Although one could delve into this phenomenon in search of the champion of all technologies, many see the disruptive power and potential of AI as being simply unparalleled<sup>3</sup>. Aware of this significance, the EU has been laboriously working towards the development of a trustworthy legal framework for AI<sup>4</sup>, aiming to create the necessary

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<sup>3</sup> Amongst the incommensurable number of brilliant quotes and comments on the potentialities and dangers of AI, two stand out as some of the most powerful and beautifully put: NICK BOSTROM's prophecy – "*Machine intelligence is the last invention that humanity will ever need to make*" – and STEPHEN HAWKING's warning – "*The development of full artificial intelligence could spell the end of the human race. [...] It would take off on its own, and re-design itself at an ever-increasing rate. Humans, who are limited by slow biological evolution, couldn't compete, and would be superseded*".

<sup>4</sup> In fact, the emergence in 2021 and 2022 of the AI Act and the AI Liability Directive is just the tip of the iceberg, since these represent the concentrated outcome of a colossal work, as various institutions and organizations within and throughout the EU have been (almost frenetically) producing documentation on AI for (more than) a handful of years now, with a vast myriad of assessments, proposals, reports, resolutions and

legal environment to support the broad adoption of AI across the EU through a three-folded approach which comprises: (i) the creation of uniform rules on AI Systems, concerned with their safety and proper use (*ie*, the AI Act), (ii) the revision of sectoral and horizontal product safety rules, including the revision of the Product Liability Directive, and (iii) the creation of harmonised rules on liability issues related with AI Systems (*ie*, the AI Liability Directive). Indeed, this approach seems to acknowledge what a succession of historic breakthroughs has taught us: that whenever humanity invents a new technology it usually unveils a whole new class of liabilities (and so, much like our ancestors unwrapped entire liability branches in the three prior industrial revolutions, so shall we now face the music that the upheaval of AI is about to play). Indeed, one does not simply undertake such an audacious enterprise as it is to regulate AI without endeavouring also to regulate the liability issues that may arise therefrom. As the EC eloquently puts it when addressing the affinity between the AI Act and the AI Liability Directive: “[s]afety and liability are two sides of the same coin”<sup>5</sup>.

### 2.1.2 A pivotal choice

Amongst the most important questions posed when thinking this legal framework was that referring to the liability paradigm on which these rules should be construed, sparking an immense debate over the dichotomy of fault-based liability *vs* strict liability. In other words,

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surveys multiplying almost as fast as the AI technologies themselves flourish (*eg*, the EP 2017 Resolution; the Strategy for AI in Europe; the Report on Liability for AI; the AI White Paper; the Report on AI, the IoT and Robotics; the EP 2020 Resolution; the Comparative Law Study on Civil Liability for AI; the EC 2021 Communication; the EP 2022 Resolution; etc.). The preceding (non-exhaustive) shortlist reflects how many lawmaking players and agents in the EU have been regurgitating preparatory documents that, sometimes, risk being contradictory, endangering the desirable coherence, certainty, and clarity that all good legal frameworks need. The crucial heed of thinking before acting is a supreme value of preciseness and fairness, much needed in the legislative process, but it cannot be so extreme as to devalue much needed regulation with excessive theorisation. The temptation to feed endless and (so far) inconsequential debates risks creating a lagging effect on regulation that could result in the delay of its enactment, which could in turn render such regulation obsolete even before it effectively comes into force.



should AI non-contractual civil liability require fault or, conversely, should there be a no-fault liability? In the first option, liability should essentially emerge from the breach of a duty of care wherefrom fault would be ascertained<sup>6</sup>. In the second, liability should be conceptually different, as it would derive not from the fault of one or more agents but rather from the fact that a specific damage would emerge within a defined sphere of risk (usually to be borne by the person or persons reaping the economic benefit associated therewith)<sup>7</sup>. This, inevitably, brings up the discussion about the very essence and role of civil liability<sup>8</sup>, whose roots pervade the ancient Roman soil and beyond, having been edified oriented by the idea that the victim of a damage should be entitled to seek adequate compensation<sup>9</sup>, as well as the thought that liability itself acts as an economic (dis)incentive on its addressees to conform their behaviour in order to avoid such economic burden<sup>10</sup>. At the end of the day, opinions amongst stakeholders diverged greatly and two movements almost adversarial arose: one the one hand “*EU citizens, consumer organizations and academic institutions strongly supported measures on the burden of proof and harmonising no-fault liability*

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<sup>6</sup> J. M. ANTUNES VARELA, *Das Obrigações em Geral*, Vol. I, 2003, page 566: as explained by the much-respected Portuguese Professor, this fault would express a personal reprehensible judgment – in his wise words, “*juízo de reprovabilidade pessoal*” – of the agent whereby the person causing the damage, in face of the specific circumstances of the situation, should have and could have acted in a different manner.

<sup>7</sup> J. M. ANTUNES VARELA, *Op. cit.*, page 633: the renowned scholar further teaches, about liability based on risk, that he who creates or maintains a risk and benefits therefrom shall bear the harmful consequences of its employment, since he is reaping its main benefit (*ubi emolumentum, ibi onus; ubi commodum ibi incommodum*).

<sup>8</sup> For the rich theoretical substrate on this matter, amongst others, see J. M. ANTUNES VARELA, *Op. cit.*, pages 518 *et. seq.*, INOCÊNCIO GALVÃO TELLES, *Direito das Obrigações*, 1989, pages 194 *et. seq.*, ANTÓNIO MENEZES CORDEIRO, *Tratado de Direito Civil, Vol. VIII*, 2020, pages 385 *et. seq.*, LUÍS M. MENEZES LEITÃO, *Direito das Obrigações, Vol. I*, 2022, pages 277 *et. seq.*, NELSON ROSENVALD, *As Funções da Responsabilidade Civil: A Reparação e a Pena Civil*, 2014, and NILS JANSEN, *The Idea of Legal Responsibility*, 2019.

<sup>9</sup> A bedrock of civil liability decanted from the famous Roman rule *rupitias sarcito* (instilling the notion that every damage should be repaired), present in the ancient Law of the Twelve Tables (*Lex Duodecim Tabularum*).

<sup>10</sup> This double-edged role is also expressly acknowledged in the first recital of the EP 2020 Resolution.

(...) *coupled with mandatory insurance*”, whilst, on the other hand “[b]usinesses were more divided (...) with differences depending in part on their size” – although the majority of their respondents deemed a strict liability regime to be “*disproportionate*”<sup>11</sup>. In this context, it is important not to overlook the set of recommendations laid down in the EP 2020 Resolution – in which it is found, as a “*structuring element*”, the distinction between a strict liability (*responsabilidade objetiva*) for High-Risk AI Systems and a fault-based liability with presumption of fault (*responsabilidade subjetiva com culpa presumida*) for the remainder AI Systems<sup>12</sup> –, as well as those contained in the EP 2022 Resolution. These recommendations – which simultaneously pick up on, and diverge from, the recommendations present in the EP 2017 Resolution<sup>13</sup> –, however, ended up not being exactly followed in the draft of the AI Liability Directive. Although to some extent the concern about differentiating AI High-Risk Systems is addressed in the AI Liability Directive (see paragraph 1.2.3), there is no affirmation of a stern separation in this directive between a fault-based regime and a strict liability regime for different AI Systems. In fact, despite having been underscored in the EP 2022 Resolution the prior call for a legal framework distinguishing High-Risk AI Systems from all other – recommending that the first should be subject to strict liability rules (topped with mandatory insurance coverage) whilst all other should be subject to fault-based liability assisted with a presumption of fault<sup>14</sup> –, the EC did not attend to this appeal.

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<sup>11</sup> Explanatory Memorandum of the AI Liability Directive (page 8).

<sup>12</sup> HENRIQUE SOUSA ANTUNES, *A Responsabilidade Civil Aplicável à Inteligência Artificial: Primeiras Notas Críticas sobre a Resolução do Parlamento Europeu de 2020*, in RDR, Ano 3, 2021, pages 2 and 19.

<sup>13</sup> HENRIQUE SOUSA ANTUNES, *A Responsabilidade Civil...*, pages 15 to 19 (referring to the evolution from the EP 2017 Resolution to the EP 2020 Resolution).

<sup>14</sup> Amongst the recommendations for the creation of a “*favourable regulatory environment*” (under the title “*Roadmap for becoming a global leader*”), it is stated, in paragraph no. 146, that “*due to the characteristics of AI systems, such as their complexity, connectivity, opacity, vulnerability, capacity of being modified through updates, capacity for self-learning and potential autonomy, as well as the multitude of actors involved in their development, deployment and use, there are significant challenges to the effectiveness of Union and national liability framework provisions (...) while high-risk AI systems should fall under strict liability laws, combined with mandatory*

Albeit repeatedly acknowledging the inadequacy of national regimes based on fault to deal with the new cluster of liability problems which is about to burst from the implementation, marketing and use of AI, the EC took a first decisive step in the direction of an AI fault-based non-contractual civil liability framework, leaving out of the AI Liability Directive a strict liability regime for AI Systems – although not closing the door to it entirely. This deliberate judgment, which appears to be as political as it is pragmatical, could be seen as having been motivated by the commitment to the double mandate of promoting trust in AI and not disproportionately hindering its development (which, considering the business fabric at European level, rich in SME, could be awfully affected by a suffocating and likely disproportionate strict liability regime which would heavily weigh on companies, with SME suffering the most). Other motives could also be discovered behind this decision, such as the current state of the art itself, in which context it is very important to consider the technological advancement (or lack of it) in what refers to the autonomy of AI Systems existing in the present<sup>15</sup>. Hence, constrained by the need not to disregard the various values at hand, as well as by the importance of finding a balanced solution which would fairly respect and appease all stakeholders, the EC adopted a staged

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*insurance cover, any other activities, devices or processes driven by AI systems that cause harm or damage should remain subject to fault-based liability”, complemented by a “presumption of fault on the part of the operator, unless the latter is able to prove that it has abided by its duty of care”.*

<sup>15</sup> In a rich paper about how humans are currently (and increasingly) participating in tasks in which they work with AI algorithms and other tools, REBECCA CROTOF, MARGOT E. KAMINSKI, and W. NICHOLSON PRICE II, *Humans in the Loop*, 2023, explore how humans are responsible for making certain decisions and/or participating in certain processes. In it, they very rightly affirm that “[t]he question of how to regulate human-in-the-loop systems will remain a constant for the foreseeable future, but the right answers will vary dramatically depending on the roles humans are meant to play and the context of the particular systems” (page 510). This might be one of the keys to understand the current liability issues concerning AI Systems, as the true autonomy we see in science fiction books and movies is still very far away. As such, albeit the very meritorious arguments in favour of strict liability regimes for AI (mostly for High-Risk AI Systems), it is somehow understandable that in such an embryonic stage of the development of AI lawmakers find it reasonable to try to establish a link with a human conduct.

approach<sup>16</sup> through which the AI Liability Directive will primarily force Member States to adopt national measures to alleviate the burden of proof for claimants, reserving, for a second moment, later in time (see paragraph 1.2.4), the re-assessment of these rules to decide whether or not this civil liability framework should evolve into, or include, a strict liability harmonised set of rules for AI Systems<sup>17</sup>, buckled with a possible mandatory insurance. Although this legislative option may be seen as shy or insufficient<sup>18</sup>, the fact is that it appears to fathom that AI, despite being an almost centenarian human idea<sup>19</sup>, is, nowadays, truly, still giving its first steps. Notwithstanding this, over the next decade the EU will dangerously walk on a faltering legal tightrope, having to permanently balance the need not to encumber the development of AI

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<sup>16</sup> As per policy option number 3, as summarised in the Explanatory Memorandum of the AI Liability Directive (page 9), following the prior analysis decanted into the IAR prepared in connection therewith.

<sup>17</sup> Supporting the merits of strict liability regimes, notably, MAFALDA MIRANDA BARBOSA, *Ainda o Futuro da Responsabilidade Civil pelos Danos Causados por Sistemas de IA*, 2023, pages 356 to 369, ANA RITA MAIA, *A Responsabilidade Civil na Era da Inteligência Artificial – Qual o caminho?*, 2021, page 44, MARTIN EBERS, *La utilización de agentes electrónicos inteligentes en el tráfico jurídico: ¿Necesitamos reglas especiales en el Derecho de la responsabilidad civil?*, 2016, page 16, JEAN SEBASTIEN BOGHETTI, *Civil Liability for Artificial Intelligence: What Should its Basis Be?*, 2019, pages 99 and 100.

<sup>18</sup> With a reasonably sharp critique, PHILLIPP HACKER, *The European AI Liability Directives: Critique of a Half-Hearted Approach and Lessons for the Future*, 2022, page 66, commenting both on the AI Liability Directive as well as on the revision of the Product Liability Directive, poignantly states that “*The dual proposals of the Commission on liability for AI take steps into the right direction, but they do not go far enough. Overall, the two half-hearted directives do not add up to one convincing approach. They fail to provide a uniform framework for AI liability in the EU which would balance ease of compensation with sufficient legal certainty for AI development and deployment*”. In turn, MAFALDA MIRANDA BARBOSA, *Ainda o Futuro ...*, pages 356 to 369, concludes that the solutions in the AI Liability Directive are insufficient to answer to the problems raised by AI, criticizing the probabilistic imputation method typified in the directive in respect of the presumption of causality, adding, at the end, that the provision of a strict liability regime, even if by initiative of national lawmakers, seems to be necessary.

<sup>19</sup> If one is to consider that the advent of AI was long imagined since, at least, FRITZ LANG’s 1927 masterpiece “*Metropolis*”, thus decades before JOHN MCCARTHY minting the expression during the 1950s.

with destructive over-regulation and expensive compliance costs, which could hamper innovation, and the cardinal concern of not losing control of the progress of AI, which could have the utmost harmful effects on the rights of natural and legal persons – the main subjects of such human legal constructs, at least for now...

### 2.1.3 The harmonisation path

Understanding the diversity within the EU itself (often cause of political and legislative stalemates), particularly as a result of the great existing differences between the national regimes of Member States on civil liability, the EC decided to seek the enactment of legislative beacons by means of a directive as the “*most suitable instrument for this proposal*”<sup>20</sup>, in an attempt to pre-emptively avoid greater legislative fragmentation across the EU. Indeed, as yet another set of EU guidelines would not have the necessary binding powers to meet the proposed targets, and a regulation would risk frontally colliding with the heterogeneity of national liability frameworks, the proposal of a set of harmonised rules apparently fits best both the legal strength needed for such an important matter and the required flexibility to ensure a relevant level of compatibility throughout the EU (striking as a choice for a possible intervention over a void invention). However, one cannot ignore that these gains in legal practicability might be a chilling warning that true legal certainty across the EU coming from the uniformisation of rules on AI non-contractual civil liability might be a chimerical and farfetched dream.

## **2.2 The AI Liability Directive**

### 2.2.1 Subject matter and scope

#### *(a) Material scope*

Pursuant to Article 1(1) of the directive, this harmonising legal instrument sets forth common rules on the following two – and only

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<sup>20</sup> Explanatory Memorandum of the AI Liability Directive (page 8). With an admission, however, of its limited powers, as stated in the directive itself, which adopts “*a minimum harmonisation approach*” (Recital 14).

two – aspects of AI non-contractual civil liability: (i) the disclosure of evidence on High-Risk AI Systems, to ease the task of claimants<sup>21</sup> having to substantiate a non-contractual fault-based civil law claim for damages (see paragraph 1.2.2), and (ii) the burden of proof in case of non-contractual fault-based civil law claims brought before national courts for damages caused by AI Systems (see paragraph 1.2.3). Right away, these rules shall apply to non-contractual (also called extra-contractual) claims for civil damages, hence not requiring the existence of a contractual link between the victim of a damage and the person respectively liable for it – on this end, the AI Liability Directive considers two types of persons who can be liable: providers and users of AI Systems (whose definitions should be found, respectively, under Article 3(2) and Article 3(4) of the AI Act, *ex vi* Article 2(3) and (4) of the AI Liability Directive)<sup>22-23</sup>. However, for these rules to apply, it is required that any such claims for damages are brought before national courts under fault-based regimes<sup>24</sup>, meaning that, for now, there is

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<sup>21</sup> As defined in Article 2(6) of the AI Liability Directive. Here, it appears that the AI Liability Directive created an undesirable difference in wording when addressing the definitions of ‘*claimant*’ (as per Article 2(6) of the directive) and ‘*potential claimant*’ (as per Article 2(7) of the directive), considering that, in a rather bizarre method, only in respect of the second definition it is taken the care to clarify that a claimant should be a “*natural or legal person*”, a precision which appears to be waived in the most important definition. Accordingly, should this incoherence remain in the final wording of the directive, it is up for the Member States to correct such asymmetry when transposing the instrument into national law, for the sake of legal clarity.

<sup>22</sup> In this regard, see PHILLIPP HACKER, *Op. cit.*, page 15.

<sup>23</sup> The AI Liability Directive appears to have created a (minor) gap in their spectrum since, despite having encompassed in its Article 2 the definitions of both ‘*provider*’ and ‘*user*’, it does not include a bridge definition for ‘*operator*’, which should follow that of Article 3(8) of the AI Act (which, further to the mentions existing in the Explanatory Memorandum, is later used in Article 5(2) of the directive).

<sup>24</sup> MAFALDA MIRANDA BARBOSA, *Ainda o Futuro...*, page 356, highlights that the EC, against the central idea in the EP 2020 Resolution, opted for a liability model based in fault, whereby the AI Liability Directive is applicable only to damages caused by AI Systems whenever the relevant claims are filed under fault-based regimes. Not differently, in the words of PHILLIPP HACKER, *Op. cit.*, page 18: “*Fault is the key trigger of liability for cases brought under the AILD Proposal*”, in respect of which he adds that the directive “*contains a noteworthy restriction of the types of fault covered*”, following on its Recital 15, which states that the directive “*should only cover claims for damages when the damage is caused by an output or the failure to produce an output*

no clear hard law pathway to an immediate strict liability regime in respect of liability issues emerging in connection with AI Systems<sup>25</sup>. As such, considering the legal choice that has been addressed above (see paragraph 1.1.2), it is paramount to note that the rules foreseen under the AI Liability Directive are targeted, at least for now, for fault-based claims for damages<sup>26</sup>. This is no small detail, as the AI Liability Directive in itself is not a standalone source of law, depending on the support of the legal fixing brackets emerging under the national liability frameworks existing within the borders of each Member State. Not less important is the set of rules provided for under Article 1(3) of the directive, pursuant to which the directive shall not affect any rules, rights and exemptions listed under this legal provision. This means, for instance, that where the relevant legal requirements are met, a claimant can seek compensation for damages caused by defective AI Systems under the rules of the Product Liability Directive and the respective national legal instruments implementing it (which, in the Portuguese case, would be DL 383/89). By the same token, the AI Liability Directive shall not affect either, notably, the liability exemptions provided for under the Digital Services Act<sup>27</sup>. By itself, this legal coexistence, as envisaged by the scope of the AI Liability Directive, puts the rules emerging

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*by an AI system through the fault of a person, for example the provider or the user*". This, as further noted, creates a significant difference between the regime under the AI Liability Directive and the Product Liability Directive, since the former "*presupposes fault*" whilst the latter "*requires the defectiveness of the product*". However, as seen below, the author later appears to conclude that the AI Liability Directive also applies to strict liability claims.

<sup>25</sup> According to the proposed directive, generally speaking, this set of legal rules is intended to be applicable to all AI Systems, therefore not being limited to, for example, High-Risk AI Systems (however, that might be the case sometimes). As for the concepts of AI Systems and High-Risk AI Systems, the AI Liability Directive opted for a simple referral to those definitions as construed pursuant to the AI Act, ensuring total parity between the two main pieces of legislation on AI under EU law.

<sup>26</sup> As expressly reiterated by the definition of '*claim for damages*' (as per Article 2(5) of the AI Liability Directive).

<sup>27</sup> Where, for example, an intermediary service provider qualifies for any of the liability exemptions provided for in Article 4 (on 'mere conduit' services), Article 5 (on 'caching' services) or Article 6 (on hosting services) of the Digital Services Act, those liability exemptions shall not be affected by the provisions of the AI Liability Directive.

therefrom, which shall be comprehended within the broader framework of fault-based liability, in an independent but equivalent place to that of other legal frameworks under which a claimant may seek compensation for damages (provided, obviously, that the relevant claim requirements are duly met in accordance with the respective legal framework)<sup>28</sup>.

Furthermore, pursuant to Article 1(3)(d) of the directive, its provisions shall not affect “*national rules determining which party has the burden of proof, which degree of certainty is required as regards the standard of proof, or how fault is defined, other than in respect of what is provided for in Articles 3 and 4*”. This, clearly, is also a capital aspect behind the drafting of these common rules. Indeed, this paragraph sets the redline drawing the boundaries of the reach of the AI Liability Directive, by expressly stating that its provisions shall not mingle with those of national frameworks regulating such matters (other than under the provisions signalled therein). This, as explained by the EC, is one of the main reasons why the rules of the AI Liability Directive “*can fit without friction in existing civil liability systems*”, as they are encased within “*an approach that does not touch on the definition of fundamental concepts like ‘fault’ or ‘damage’, given that the meaning of those concepts varies considerably across the Member States*”<sup>29</sup>. If, at first glance, this provision (and its underlying reason) could lead a hasty reader to hail the EC for having preserved the identitarian immunity of such long-standing legal concepts under national laws, a second read of this paragraph should take the reader to consider its potential implications. Where the EC seems to cheer for the (virtual) feat of having devised a set of rules which can be frictionlessly fitted into national frameworks, an operator dealing with AI Systems susceptible

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<sup>28</sup> Altogether, these legal frameworks on civil liability shall occupy smaller pockets of legal protection within the bigger frame outlined by the liability regimes existing under the national rules of each Member State. The rules of the directive do not aspire to replace nor to derogate any existing rules regulating liability at the European or national level, but rather to add to them, aiming to confer an additional level of protection specially designed in light of the specific technological features of AI Systems. As noted in the Explanatory Memorandum of the AI Liability Directive (page 9), they aim “*to ensure that victims of damage caused by AI have an equivalent level of protection under civil liability rules as victims of damage caused without the involvement of AI*”.

<sup>29</sup> Explanatory Memorandum of the AI Liability Directive (page 11).



of liability might become worried with the amplitude that the concept of damage might assume across the EU, considering that it will have to be individually found under each different national framework, depending on the Member State on which the damage is deemed to have been caused<sup>30</sup>. This might, in a way, jeopardise the creation of the desired trustworthy legal environment for AI in the EU, as it has the potential to contribute to the materialisation of a maze which would obstruct the intended rollout of AI, as, for example, there could be situations where the same outcome would be deemed to be a damage in a Member State but not in another, or, even if deemed a damage in part or all of the Member States, the exact concept would not be equally perceived and/or legally addressed across the same<sup>31</sup>.

Finally, the outlines of the scope of the AI Liability Directive are complemented by the generic legislative concession enshrined under Article 1(4), by whose means it is expressly permitted for Member States to adopt or maintain more favourable national rules that benefit claimants in the task of substantiating non-contractual civil law claims from damages caused by AI Systems, so long as any such rules “*are compatible with Union law*”. Ironically, by virtue of this final rule, and despite the tightening legal strap imposed at the end of the paragraph, the door is opened for Member States to create the undesired fragmentation in legal rules on AI non-contractual civil liability within the EU (see paragraph 2.2).

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<sup>30</sup> As affirmed therein, the AI Liability Directive does not purport to “*harmonise general aspects of civil liability which are regulated in different ways by national civil liability rules, such as (...) the different types of damage that give rise to claims for damages*” (Recital 10). Although a similar concern could be thought in respect of, for example, the concept of fault, in this specific case, contrarily, the AI Liability Directive contains an auxiliary coordinate consisting of the definition of ‘*duty of care*’ (as per Article 2(9) of the directive), which, together with the rules under Article 3(5) or Article 4, as applicable, will help to narrow down such potential range.

<sup>31</sup> Such uncertainty will exacerbate the obstacles liability itself might pose to the development, marketing and use of AI in the EU (after all, as cited in the very first page of the AI Liability Directive, “*liability ranked amongst the top three barriers to the use of AI by European companies*”, further adding that liability is “*the most relevant external obstacle (43%) for companies that are planning to, but have not yet adopted AI*”).

(b) *Scope cut-offs*

Firstly, according to the first paragraph in Article 1(2) of the directive, these rules will only apply to claims for damages in cases where the relevant damages have occurred after the end of the transposition period, which, pursuant to its Article 7(1), shall consist of a period of two years after its entry into force (thus also having to be factored in the *vacatio legis* of twenty days provided for in Article 8 of the directive)<sup>32</sup>. Secondly, further clarifying the material scope of the AI Liability Directive, the second paragraph in Article 1(2) expressly and unequivocally excludes from it any criminal liability emerging in connection with AI Systems. In truth, although this exclusion could be deemed to be implicitly foreseen within this piece of legislation, it is understandable the clarification intent present here, as the crucial requirement for higher standards of legal certainty and clarity in criminal law is a building block of this branch of Law. Thus, it should

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<sup>32</sup> It should not be disregarded that the text in this provision reads: “*in cases where the damage caused by an AI system occurs after [the end of the transposition period]*”. Therefore, although the Explanatory Memorandum of the AI Liability Directive states that the same “*does not apply retroactively, but only to claims for compensation of damages that occur as from the date of its transposition*” (page 11), the legal provision within the legal body of the directive does not appear to be equally clear, not only being included between square brackets and in italic (thus instilling the idea that this is not yet definitively decided), but also differing from the explanation given in the introductory section of the AI Liability Directive. The end of the transposition period and the date of its (effective) transposition can be two very different things. Taking the Portuguese case, for example, and its recent bad record of some delays in the transposition of EU directives, this might create a blind spot which will unnecessarily put to the test the direct effect of EU law. To say that the AI Liability Directive will apply after the end of the transposition period (irrespective of its transposition) is to give space to the doubt on whether this directive shall have such direct effect, as the Court of Justice of the EU recognised in the famed *Van Duyn v Home Office* judgment ([link](#)). This direct effect, which is characteristic of EU regulations, as per Article 288 of the TFUE, is not a prevailing element in EU directives, and for it to be recognised it should be asserted, notably, that the provisions of the directive creating rights are “*clear and unconditional*” (as per said judgment). To put the burden of evidencing such unambiguity on EU citizens seems inadequate and against the spirit of the directive. It would be advisable to clear out this issue in the directive’s final version, preferably through a belts and braces approach which would ensure the necessary clarity and unambiguity to allow for the stern affirmation of such direct effect.

be applauded the precaution of having it written in stone to avoid any misunderstanding and to bar any attempt of using any rules of the AI Liability Directive to seek solutions applicable in criminal law. This is a collection of rules on civil liability only.

### 2.2.2 Disclosure of evidence and rebuttable presumption of non-compliance

#### (a) *Disclosure method*

In order to look after the position of claimants (and potential claimants), as well as that of providers<sup>33-34</sup> and users of High-Risk AI Systems who might be faced with claims for damages, the AI Liability Directive tries to create an equitable method by means of which, as laid down in its Article 3(1), Member States should adopt the necessary measures to ensure that national courts shall have the necessary powers to force providers or users to disclose important evidence that they might have about High-Risk AI Systems which are suspected of having caused the damages<sup>35</sup>. Considering that, in practice, the number of participants intervening in the design, development, distribution and operation of

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<sup>33</sup> The AI Liability Directive including here, as well as in its Article 4(2), parallel to the notion of provider, any “*person subject to the obligations of a provider pursuant to [Article 24 or Article 28(1) of the AI Act]*”, said provisions referring to, respectively, the obligations of product manufacturers and the obligations of distributors, importers, users or any other third-party.

<sup>34</sup> Henceforth, references to providers shall be deemed to encompass the persons referred to herein.

<sup>35</sup> In respect of this disclosure method, PHILLIPP HACKER, *Op. cit.*, page 26, states that “*in contrast to the presumption of causality under Article 4, the disclosure mechanism is not restricted to fault-based liability claims and therefore applies to strict liability claims as well*”. Nonetheless, such a conclusion seems to be unreachable. It is true that, contrary to Article 4, which includes it even in its heading, Article 3 makes no express mention to fault. However, this is but a detail. Besides the whole spirit of the AI Liability Directive being devoted to the idea of fault-based non-contractual civil liability, not only Article 1(1)(a) of the directive clearly restrains the scope of Article 3 to cases where there is a “*non-contractual fault-based civil claim for damages*” (in line, notably, with the notion expressly stated in Recital 15, where it is put in clear words that the directive “*should only cover claims for damages when the damage is caused (...) through the fault of a person*”), but also, the fact that Article 3(5) contains a presumption of non-compliance with a duty of care is evidence enough that this provision is structured on the prerequisite that there is a claim for damages under a fault-based regime.

an AI System can be significantly large and disperse<sup>36</sup>, and that the EC rejected the idea of inverting the burden of proof<sup>37</sup>, the solution deemed more adequate to balance the opposed interests of plaintiffs and defendants was to create a mechanism that could oblige providers and users to disclose certain information that would help claimants to better understand how reasoned their claims would be, as well as to more appropriately substantiate their claims, without excessively encumbering those on the side where liability could potentially fall. In fact, as the AI Liability Directive signals, the AI Act already “*provides for specific documentation, information and logging requirements, but does not provide a right to the injured person to access that information*”, hence being “*appropriate to lay down rules on the disclosure of relevant evidence by those that have it at their disposal, for the purposes of establishing liability*”<sup>38-39</sup>.

However, this rule – which rests on the notion that, because there is an asymmetry in the level of information which plaintiffs and defendants hold, the access to information in respect of High-Risk AI Systems is central for claimants (and potential claimants) to assess whether their claims are founded (and to substantiate them if they are) – requires some additional elements to be applied, particularly: (i) in the case of potential claimants, that such information had first been requested from providers or users and such disclosure had been rejected, as well as that they offer enough facts and evidence to demonstrate the plausibility of their claims for damages<sup>40</sup>, and (ii) in the case of claimants, that the same do

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<sup>36</sup> Which, as explained in the AI Liability Directive, can make it “*difficult for injured persons to identify the person potentially liable for damage caused and to prove the conditions for a claim for damages*” (Recital 17).

<sup>37</sup> As addressed in the Explanatory Memorandum of the AI Liability Directive (page 6), following the results of the surveys reported in the relevant IAR – where, when examining the available policy options, it is acknowledged that a reversal of the burden of proof, as suggested by the EP, would, notably, put into doubt the feasibility of such measure, considering the difficulty which it would face to be inserted into the national laws of Member States.

<sup>38</sup> Recital 16 of the AI Liability Directive.

<sup>39</sup> Coherently, there is also a specific rule on the preservation of such evidence, as per Article 3(3) of the directive.

<sup>40</sup> This plausibility reasoning valve, which deserves applause, might entail, nonetheless, a dangerous source of judicial disparity, since, more than the principles of neces-

request such disclosure and that they had undertaken “*all proportionate attempts at gathering the relevant evidence from the defendant*” (as per Article 3(2) *in fine*). This, therefore, shows that even if the legitimate interests of claimants (and potential claimants) are somehow met, this rule was designed in a way that strives to prevent frivolous or gratuitous requests to be made which would unjustly tax providers and users of AI Systems<sup>41</sup>. In the same sense, the rules on this disclosure method were strengthened with various controls under Article 3(4)<sup>42</sup> which aim at preventing it from being used in an unfair way, such as the insertion of the principles of necessity and proportionality, as well as the adequate barriers to impede claimants (and potential claimants) to get access to trade secrets, as regulated by the Trade Secrets Directive (transposed into Portuguese national law by the IP Code), or otherwise confidential information, “*such as information related to public or national security*”.

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sity and proportionality (which are legal concepts far more known and already rooted in the legal frameworks of Member States), the judgment on plausibility is prone to the subjectiveness of judges across national courts throughout the EU. It is thus important that national courts materialise this requirement in a way that effectively safeguards operators from the risk of potential claimants weaponising the disclosure method to access information they normally would not be able to get (to the extent any such information would not qualify as trade secrets or confidential information pursuant to Article 3(4) of the directive, in which case such access would be blocked), or otherwise that the same would be used as some sort of judicial leveraging mean for other interests of potential claimants. If this is not properly addressed by national courts, in spite of the controls on trade secrets, we risk seeing, for instance, disguised competitors fishing for information through judicial proceedings, either to actively seek for information with commercial value, or just to trouble other competitors with the heavy load of lawsuits.

<sup>41</sup> Or, from a less extreme perspective, as noted by PHILLIPP HACKER, *Op. cit.*, page 28: “*the process may prevent non-meritorious suits at an early stage, as potential claimants may refrain from litigation if they cannot gather enough evidence. This exonerates courts and saves social cost*” (as noted also in Recital 17 of the directive).

<sup>42</sup> Which, nevertheless, contains certain expressions that could also lead to judicial disparity across the EU, notably when using vague expressions such as “*specific measures*” or “*appropriate procedural remedies*” (respectively, in the third and fourth paragraphs). Even if not overly specified within the AI Liability Directive, these potentially disharmonising concepts should be somehow typified (notably through guidelines) in order not to have an incommensurable disparity in their materialisation amongst the national courts of different Member States.

*(b) Rebuttable presumption of non-compliance*

Moreover, Article 3(5) of the directive establishes a rebuttable presumption (*presunção ilidível*) of non-compliance impending on defendants who do not comply with a judicial order to disclose or preserve the aforementioned information<sup>43</sup>, whereby “*a national court shall presume the defendant’s non-compliance with a relevant duty of care, in particular in the circumstances referred to in Article 4(2) or (3), that the evidence requested was intended to prove for the purposes of the relevant claim for damages*”. Albeit the wording of this provision could be improved for the sake of clarity (particularly at its end), the underlying idea is relatively easy to apprehend: if upon being asked to disclose evidence on the High-Risk AI System the provider or the user fails to do so, the court shall presume that the same failed to comply with a duty of care created to directly protect against the damage that occurred.

2.2.3 Rebuttable presumption of a causal link in the case of fault

*(a) Main statutory contours of the presumption of causality*

With the drive of alleviating the burden of proof of claimants seeking compensation for damages caused by AI Systems, the AI Liability Directive introduces in its Article 4(1) a presumption of causality – rebuttable as per its Article 4(7) – targeted at easing the task of claimants in what respects to proving the causality link (*nexo de causalidade*) between the non-compliance of the defendant and the output of the AI System or its failure to produce one.

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<sup>43</sup> Upon a joint reading of Recital 17 and Article 3(5) of the directive, it should be clarified that this rebuttable presumption shall only operate if a defendant refuses to comply with a court order. Therefore, there is no room for such a presumption to apply where the relevant operator refuses to disclose such information prior to a court order. Whilst pursuant to Article 3(2) claimants are required to do all in their power to obtain such information before resorting to the disclosure method, the construction of this rebuttable presumption could potentially lead to a habit of companies not providing such information unless they are judicially compelled to do so (as this will encumber potential claimants and claimants with the onuses of demonstrating the plausibility of the request or otherwise that they exhausted all other available methods), thus contributing to a recurrent tug of war between claimants and operators, where the former ask for information that the latter do not provide unless a court forces them to do so.

Motivating the creation of this legal presumption of causality is the acknowledgement of the non-suitability of national liability rules to address liability issues arising in connection with AI Systems, as these rules lay over veteran bedrocks which, considering their long legal foundations (notably in the demands made about the exact demonstrability of a causality link), do not account for the unique characteristics of AI. Amongst the specificities of these modern technologies, there is a trifecta of features regularly pointed out as characterising AI Systems: complexity, autonomy, and opacity<sup>44</sup>. These three elements are very important in understanding AI Systems and the problem posed in relation to the causality link, as the same usually result in a concealing effect which masks the processes happening within the AI Systems themselves, in what is usually called the “*black-box effect*”<sup>45</sup> – meaning the lack of ability we humans (and, in particular, legal scholars and practitioners, who tend to understand close to nothing of computer science) have to understand the way AI Systems operate<sup>46</sup>. For this reason, the EC decided to act decisively towards the

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<sup>44</sup> These three characteristics are expressly mentioned in the Explanatory Memorandum of the AI Liability Directive (page 1), as well as in the directive itself (in Recitals 3, 27 and 28). Despite not having suggested such a presumption of causality, the problems posed for injured persons due to these features of AI Systems had also been signalled by the EP (as paragraph no. 146 of the EP 2022 Resolution)

<sup>45</sup> For a deeper, yet light, reading on the black-box effect and its legal regulation see ALEXANDRE DE STREEL, ADRIEN BIBAL, BENOIT FRENAY and MICHAEL LOGNOUL, *Explaining the Black Box: when law controls AI*, a paper dated 3 February 2020, from the Centre on Regulation in Europe ([link](#)). Also helpful in this context, amongst others, GYANDEEP CHAUDHARY, *Artificial Intelligence: The Liability Paradox*, 2020; KAN JIE MARCUS HO, *The Question of Autonomy, Liability Attribution and Black Boxes Decision Making*, 2020; as well as HENRY FRASER, AARON J. SNOSWELL and RHYLE SIMCOCK, *AI Opacity and Explainability in Tort Litigation*, 2022.

<sup>46</sup> Simply put, using the words of GYANDEEP CHAUDHARY, *Op. cit.*, page 148: “*when we try to understand the functioning, we encounter a dead-end, and it becomes impossible to explain what is going inside the AI*”. The author continues by rightly pointing out that “[t]his (...) causes a wide range of issues with trust involving AI systems or neural systems”. Interestingly, the problem with the so desirable explainable AI has not been entirely overlooked by ‘big techs’ developing these technologies, as noted by K. J. MARCUS HO, *Op. cit.*, page 8: “*Industry experts are also aware of the need to unwrap the ‘black box’. For example, Microsoft has, commendably, taught an AI to show that it has weighed up every single relevant factor in the evaluation of mortality risk, and thereafter implementing this concept into its “AI Network for Cardiology*

creation of a legal instrument that could help mitigating the harmful repercussions that the black-box effect would have for injured persons trying to substantiate claims for damages occurred in connection with the operation of AI Systems: and so, it was born the legal rebuttable presumption of causality in the AI Liability Directive<sup>47</sup>.

This rebuttable presumption has, however, more than meets the eye, as its application depends also on three cumulative conditions: (i) the fault of the defendant – which can either be demonstrated by the plaintiff or presumed by the court pursuant to Article 3(5) of the directive – consisting of the non-compliance with a duty of care under EU law or national law (*ie*, fault) directly referring to the damage that occurred, (ii) the probabilistic link between such fault and the output produced by the AI System or its failure to produce an output, and (iii) the demonstration that such output, or the failure of its production, caused the relevant damage. As for the first condition, the directive requires the demonstration of “*the fault of the defendant, or of a person for whose behaviour the defendant is responsible*”, which shall be discovered through the lenses of the duties of care that impended over said defendant and that were devised in respect of that damage<sup>48</sup>. As such, it is of the utmost importance the collection of specific duties concatenated under the AI Act (although not exclusively), with a

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*with Apollo*”. Facebook, the University of Berkeley and the University of Amsterdam have also been teaching its image recognition AI (*‘Groknet’*) to show a step by step explanation of how it has reached its decision”.

<sup>47</sup> PHILLIPP HACKER, *Op. cit.*, page 38: “an important step into the right direction (...) to plug a crucial gap in the effective private enforcement of the AI Act and the concomitant compensation of affected persons for damages”.

<sup>48</sup> As per the interpretative introduction of the AI Liability Directive (Recital 22): “*For the presumption of causality under this Directive to apply, the fault of the defendant should be established as a human act or omission which does not meet a duty of care under Union law or national law that is directly intended to protect against the damage that occurred*”. Thus, not all breaches in duties of care shall mathematically equate to the triggering of this presumption, since “[n]on-compliance with duties of care that were not directly intended to protect against the damage that occurred do not lead to the application of the presumption, for example a provider’s failure to file required documentation with competent authorities would not lead to the application of the presumption in claims for damages due to physical injury”. Therefore, as reprehensible as it might be, the non-compliance with a duty of care unrelated to the specific damage occurred prevents the application of the presumption of causality.



reinforced focus on High-Risk AI Systems. Indeed, considering the rules under Article 4(2) of the directive, in respect of claims against a provider, and those under Article 4(3) of the directive, in respect of claims against a user, the verification of this first condition should be deemed to be fulfilled upon the plaintiff demonstrating the non-compliance of the defendant with the exact duties listed therein, all as provided for under the AI Act (in Chapters 2 and 3 of Title II of the regulation), and which include certain specific requirements on data training, transparency, human oversight, accuracy, robustness and cybersecurity. Sequentially, the second condition requires the claimant to demonstrate that, based on the circumstances of the case, the fault of the defendant can “*reasonably likely*” be considered to have influenced the output produced by the AI System or its failure to produce an output. In what, superficially, appears to be a fair requirement, intending to request that the claimant establishes a connection between the action or omission of the defendant and the output of the AI System or the lack of such output, the AI Liability Directive actually introduces a requirement which is not clear, as it apparently resorts to a probabilistic judgment<sup>49</sup> which will most likely be more difficult to establish by plaintiffs than to rebut by defendants. Finally, the third condition requires that the claimant demonstrates that the output produced by the AI System, of its failure to produce one, gave rise to the damage. Despite there being some differences in the wording of Article 4(1) of the directive and that of its subparagraph (c), in truth, this requirement seems to be incoherent with the presumption of causality and, in truth, inadequate. If the claimant must demonstrate the fault of the defendant pursuant to subparagraph (a), as well as the link between that fault and the output of the AI System or its failure to produce one pursuant to subparagraph (b), having to demonstrate as well, pursuant to subparagraph (c), that such output or its absence caused the damage, then the aforesaid presumption of causality renders an empty instrument of virtually no use<sup>50</sup>.

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<sup>49</sup> MAFALDA MIRANDA BARBOSA, *Ainda o Futuro...*, page 363: about this second requirement, the Portuguese author pertinently stresses that this idea of probability points to a vision of causal and physical nature (*visão causalista e fisicista*) which will result in a probative difficulty (*dificuldade probatória*) – which, naturally, will hinder the capability of claimants to meet this requirement as laid down in the AI Liability Directive.

<sup>50</sup> Raising a similar question, MAFALDA MIRANDA BARBOSA, *Ainda o Futuro...*, page 363, inquires, in such a scenario (of cumulative verification of these three conditions), what is there to presume?

(b) The “least interventionist tool”

By refusing to reverse the burden of proof here, the EC tried to find an intermediate solution through which, by requiring claimants to prove that there was fault (unless the same is presumed under the AI Liability Directive), as well as that the causal link with the performance of the AI System is reasonably likely, a rebuttable presumption would be in place allowing courts to presume that the relevant non-compliance caused the damage<sup>51</sup>. The end result, nevertheless, appears to be defective and in clear need of reparation before use. Moreover, this “least interventionist tool” contains also other special parts, some of them good, other not quite so good. The possibility pursuant to Article 4(4) of a court rejecting the applicability of the presumption where it deems that “sufficient evidence and expertise is reasonably accessible for the claimant to prove the causal link” is actually a good measure<sup>52</sup> and it can effectively contribute to companies voluntarily disclosing information to mitigate the black-box effect. As for the provision under Article 4(5), right away there is a problem of placement. By only putting in paragraph 5 a mention to the exceptionality of the application of the presumption of causality in case of AI Systems which are not High-Risk AI Systems, the AI Liability Directive loses in clarity, as it should have opted for a wording that, in Article 4(1) itself would clarify that the presumption of causality is, in first place, a legal instrument for High-Risk Systems. As for the extension itself, albeit good in nature, it unfortunately resides on a vague and subjective judgment that could lead to judicial disparity. Finally, it seems also to have been good policy to strongly restrict the situations where such a presumption can apply when the defendant used an AI System “in the course of a personal, non-professional activity” as provided for under Article 4(6), since such use tends not to share

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<sup>51</sup> This rebuttable presumption, therefore, was the “least interventionist tool” deemed adequate by the EC, convinced that the reversal of the burden of proof would be a worst solution, as it would not only risk colliding with the national laws of some Member States but also hamper AI innovation. This latter motive was actually expressly confessed in the Explanatory Memorandum of the AI Liability Directive (page 6): “The proposal does not lead to a reversal of the burden of proof, to avoid exposing providers, operators and users of AI systems to higher liability risks, which may hamper innovation and reduce the uptake of AI-enabled products and services”.

42 <sup>52</sup> Applauded by businesses, as shown in the BE Position Paper (page 17).

the sophisticated and specialised conditions which can be found in professional use.

#### 2.2.4 Evaluation and targeted review

Pursuant to Article 5(1) of the directive, there is an obligation for the EC to review the application of the directive five years after the end of the transposition period and, accordingly, to present a report to the EP, the Council, and the European Economic and Social Committee with its conclusions which, if deemed appropriate by the EC, shall be accompanied by the relevant legislative proposal. As explained in Article 5(2) of the directive, this report shall focus on the examination of the effects of the application in the real world of the provisions contained in Article 3 (see paragraph 1.2.2) and Article 4 (see paragraph 1.2.3), as well as on the adequacy of the same to meet the targets assumed by the AI Liability Directive<sup>53</sup>, in which context it assumes central relevance the fact that this provision expressly admits that said evaluation should elaborate on “*the appropriateness of non-fault liability rules for claims against the operators of certain AI systems (...) and the need for insurance coverage*”. Well, this is, clearly, irrefutable proof that the EC admits, even before the AI Liability Directive comes into force, that the envisaged framework might not be entirely adequate for the needed regulation on AI non-contractual civil liability. If the enshrinement of such an evaluation and revision mechanism in the directive deserves praise, one cannot help seeing it for what it is (or, at least, for what it can become): a frail and tardy attempt to make amends. Undoubtedly, this mechanism will not come into fruition in today’s world. No. It will

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<sup>53</sup> Although the confessed purpose of the AI Liability Directive is to improve the functioning of the internal market through its set of harmonised rules on fault-based non-contractual civil liability, thus aiming “*to promote the rollout of trustworthy AI to harvest its full benefits for the internal market*” (as per the Explanatory Memorandum of the AI Liability Directive, page 2), other aims resulting therefrom are also pursued by the AI Liability Directive, particularly, the intents to reduce the legal uncertainty for businesses (concerning potential liability exposures) as well as to prevent the emergence of fragmented regimes under the national laws of Member States.

be called into existence in the far future<sup>54-55</sup>. The EC is trying to chase a moving car (or, being faithful to the context, a moving autonomous vehicle), and this could dictate serious problems for the effectiveness of this tool. We risk arriving late, trying to erratically regulate for the future over the footprint of a past mistake. This could lead to a serious inequality gap as regards the way we treat claims for damages before and after such revision (which, considering the lengthy and bureaucratic nature of the legislative process in the EU, will not even happen after the indicated five years).

### **3. IMPORTANT COORDINATES UNDER PORTUGUESE LAW**

#### **3.1 Fault-based non-contractual civil liability rules potentially relevant**

After the analysis in Part 1, a few pages are now dedicated to a necessarily short overview analysis of some of the rules existing under Portuguese law which might potentially be relevant for the purposes of creating a legal framework for fault-based non-contractual civil liability in connection with AI Systems<sup>56</sup>. In particular, one could consider that in the Civil Code there are, further to the general principle enshrined in Article 483 and the complementing rules thereafter<sup>57</sup>, two special rules

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<sup>54</sup> In reality, five years might seem nothing in “human-time”, but it can be immensely long in “AI-time”. If one was to indulge a simple thought experiment, looking back at the state of the art five years ago and trying to envision where it could be in the next five years, the potential outcomes are as astonishing as they are worrying. Five years ago, we had to ask *Siri* to make a simple call a certain number of times, repeatedly going back and forth until it would finally get exactly what we wanted (one can only imagine how many wrong calls have been accidentally made and their disastrous or laughable effects). Now, we can ask *ChatGPT* to write, in a matter of seconds (or minutes, depending on the prompting skills), anything from code to poetry, or we can ask *DALL-E* to generate any image we can possibly imagine. If this is the current state of AI development, where will we be in 2028 or 2030?

<sup>55</sup> As suggested in the BE Position Paper (page 17), the BusinessEurope group appropriately suggests a shorter time as well as that this assessment should rather consist of recurrent periodic evaluations.

<sup>56</sup> This reduced scope, excluding strict liability regimes, has a logic congruent with that of the EU which intentionally construed the first EU legal framework of AI non-contractual civil liability as a fault-based regime.

<sup>57</sup> Amongst the most important rules complementing the general principle are, for the purposes of this paper, those under Article 486 and Article 487. The first states that,

that can potentially be deemed to share some of the elements pertinent to deal with damages emerging in connection with AI Systems: (i) Article 491, on the liability of persons obliged to the monitoring of others, and (ii) Article 493, on damages caused by things, animals or activities.

The significance of Article 491 is primarily that of evoking the idea of *culpa in vigilando*, linked to a monitoring duty, hence resonating the idea of duties of care seen in the AI Act and the AI Liability Directive. Nevertheless, this rule cannot stand today as a benchmark for the rules envisaged by the axiomatic pillars of the AI Liability Directive, as it presupposes the legal personality of the person in respect of whom the monitoring duty arises – yet, this is not the current level of our laws when talking about AI Systems, and it might take a while until we finally reach it in respect of the first truly autonomous robots and other AI agents<sup>58</sup>. Article 493(1) also builds on some of the same ideas, with a particular emphasis (again) on the liability construct resting on the weight of the duties of care, albeit referring not to people but rather to things or animals. This seems to be a much closer reality to AI Systems (including, one day, robots with a higher degree of autonomy), however,

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for the purposes of ascertaining the duty to compensate, an omission shall be equally valued to an action whenever there was a legal or contractual duty to act (this, as one can see, is not far from the idea present in the AI Liability Directive when it covers not only the output produced by AI Systems but also the failure to produce one). The second, states both that (i) unless there is a presumption of fault, the proof of such liability element falls on the injured person, and (ii) the fault shall be assessed, in the absence of another legal criterion, by the diligence of the *bonus pater familiae* (ie, the standard of zeal of the common man) in face of the circumstances of each case. If said rules appear to be capable of, generally speaking, being considered in the construction of a new liability regime, this last requirement clearly cannot be used as it stands, as correctly pointed out by HENRIQUE SOUSA ANTUNES, *Inteligência Artificial e Responsabilidade Civil: Enquadramento*, page 153 (noting, however, that the author refers to the fault of autonomous robots, rather than ascertaining the fault of people interacting with AI Systems, the underlying idea is comparable, as the people dealing with AI Systems will, as a general rule, have a higher degree of technical knowledge and sophistication that demands a specialised standard of zeal, not that of the common man).

<sup>58</sup> In this sense, for instance, see HENRIQUE SOUSA ANTUNES, *Inteligência Artificial...*, pages 152 and 153. Also not agreeing with the use of this rule for AI robots, see PEDRO MANUEL PIMENTA MENDES, *Inteligência Artificial e Responsabilidade Civil: As Possíveis “Soluções” do Ordenamento Jurídico Português*, 2020, page 955.

it is also not exactly appropriate. As seen before in Part 1, the specific features of AI Systems make them a one-of-a-kind reality. Surely, we can try to establish some level of kinship with the concepts of things and animals we already have under national law, withal, AI Systems are not mere ‘dumb things’, which are but instruments dependent on human volition (either by act or omission), nor are they animals, which are living breathing creatures who, despite the lower degree of intelligence, are capable of complex chains of thought, even comprising traits of emotional understanding<sup>59-60</sup>. As for Article 493(2), the formulation of liability resides in the dangerous nature of the activity or the means used in it, whereby the person potentially liable is called to answer for damages caused in the context of an activity more prone to the causation of harm as a result of that higher level of hazard (either of the activity itself or of the means employed in it). This, thusly, presents a legal solution closer to the foundations of strict liability regimes<sup>61</sup>, although still depending on the personal element associated with the fault of a human agent. If, in a way, this could lead to the conclusion that, *de iure constituto*, this rule is the best existing fit to the liability problems arising in connection with AI Systems<sup>62</sup>, the same is not exempt of problems in its application from a conceptual standpoint. In what regards to the possible existence of especially dangerous activities and/or means making use of AI Systems, the first tend to be dealt with in a sectorial approach, mainly at the EU level, and therefore cannot lead to a one-size-fits-all solution, whilst the second might not be as obvious as it appears at first glance. Considering the conglomerate of duties and obligations laid down in the AI Act<sup>63</sup>, as well as all safety

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<sup>59</sup> Due to the acknowledgement of these particularities, the legal treatment given to animals under Portuguese law has evolved in recent years (especially with the creation of a specific legal status by means of Law no. 8/2017, of 3 of March), which forced the introduction of Article 201-B into the Civil Code, which now clearly states that animals are living beings endowed with sensibility and object of legal protection by virtue of their nature.

<sup>60</sup> Maybe one day, as we saw animals legally mature from mere things to something more, so will we see, before the advent of Artificial General Intelligence, the creation of a special legal status for, at least, some AI.

<sup>61</sup> As noted, specifically in respect of AI, by ANA RITA MAIA, *Op. cit.*, page 34.

<sup>62</sup> See ANA RITA MAIA, *Op. cit.*, page 40.

<sup>63</sup> Which motivated some of the biggest companies in Europe to publicly warn EU lawmakers about the potential nefarious effects on “*Europe’s competitiveness and*

mechanisms often involved in the design and operation of AI Systems, it might not be entirely appropriate to talk about dangerous means when referring to AI Systems in general<sup>64</sup>. On top of these issues, there is also a lack of satisfactory compatibility of the last part of this rule with the idea seen in the AI Liability Directive about the connection established between the compliance with the duties of care foreseen under the AI Act and the fault of the human interacting with the AI System.

### 3.2 An enormous legal gap in the making

The nature of AI brings legal problems which have never been tested or – in some cases – even thought about. If anything is possible of being concluded with a considerable degree of certainty is that there is no one framework or rule under Portuguese law which can truly be applied to the problems posed by the non-contractual civil liability emerging in connection with AI Systems<sup>65</sup>. The architecture of our legal manor is not prepared to accommodate such disruptive new tenants<sup>66</sup>, and granting that there is a temptation to try to find them a temporary place in the guestroom, the kitchen, or the yard, sooner or later the headaches resulting from the deficiencies of such legal lodging technique will be too acute to be borne. Consequently, there is an immediate concern for lawmakers consisting of the need to devise a coherent and proportional set of rules capable of dealing with this matter – which, inevitably, when carried out at national level, will endanger the sanctity of harmonisation desired by EU lawmakers, more and more contributing to AI legal fragmentation across the EU. This need will inescapably result in recurrent debates about which type of non-contractual civil liability we want for damages resulting from AI Systems. As valuable as it is to think about creating appropriate strict liability regimes, an insurmountable legal hurdle exists under Portuguese law that will always have to be considered:

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*technological sovereignty*” that such a high degree of mandatory duties – and the associated compliance costs, which can become prohibitively high – can have ([link](#)).

<sup>64</sup> See HENRIQUE SOUSA ANTUNES, *Inteligência Artificial...*, page 144, and ANA RITA MAIA, *Op. cit.*, page 34.

<sup>65</sup> A predicament, assuredly, not exclusive of Portuguese law.

<sup>66</sup> Also sharing this thought, amongst others, see PEDRO MANUEL PIMENTA MENDES, *Op. cit.*, page 967.

pursuant to Article 483(2) of the Civil Code there can be no obligation to compensate regardless of fault unless such obligation is specifically and properly provided for under written law<sup>67</sup>. As such, and not losing sight of the choice made by EU lawmakers (see paragraph 1.2.1), all discussions on hypothetical models of strict liability for AI will be, for now, mere *de iure constituendo* considerations.

#### 4. THE FIRST STONE AND THE PATH AHEAD

Right away, to admit it bluntly: the job is not easy. We might be facing one of the greatest legal challenges since the dawn of legal codification. The arrival of AI has cataclysmic proportions in a wide range of areas and Law is not immune to this tsunami. If in truth the EU legislative process could be more expedite, also true is the fact that, contrary to many other countries and regions, the EU has already laid down the first stone in this respect (well, actually, the first two stones, the AI Act and the AI Liability Directive). Nevertheless, the analysis of the solutions proposed in the AI Liability Directive should be critical, not to shatter its legal framework, but rather to make sure that when the time comes, it will withstand any turbulence it might face. Thence, it is necessary to point out that the instrument is not flawless. The harmonisation path has its merits and shortcomings, but what cannot stand is a faulty presumption of causality, or a revision mechanism which risks serving as a late reboot button. The EU and its Member States must understand that a new reality requires new rules, and that any shortcut or improvised solution will not respond adequately to the challenge at hands. The dilemma about fault-based liability *vs* strict liability will be evermore present and this means that there must be an open and committed debate on whether we want to prioritise innovation or the protection of claimants. This, nonetheless, cannot disregard the fact that AI has already triggered not one, but two races: the technological race and the legislative race.

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<sup>67</sup> See, in respect of AI, notably, MAFALDA MIRANDA BARBOSA, *O Futuro da Responsabilidade Civil Desafiada pela Inteligência Artificial: As Dificuldades dos Modelos Tradicionais e Caminhos de Solução*, 2020, page 285.



## ABBREVIATIONS AND DEFINITIONS

- AI** Artificial Intelligence.
- AI Act** Proposal for a Regulation of the European Parliament and of the Council laying down harmonised rules on artificial intelligence (Artificial Intelligence Act) and amending certain Union legislative acts – Brussels, 21.4.2021 – COM (2021) 206 final, 2021/0106 (COD) ([link](#)).
- AI Liability Directive** Proposal for a Directive of the European Parliament and of the Council on adapting non-contractual civil liability rules to artificial intelligence – Brussels, 28.9.2022 – COM (2022) 496 final, 2022/0303 (COD) ([link](#)).
- AI System** Software that is developed with one or more of the techniques and approaches listed in Annex I of the AI Act 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 (as defined in Article 3(1) of the AI Act).
- AI White Paper** White Paper on Artificial Intelligence: a European approach to excellence and trust, dated 19 February 2020 ([link](#)).
- BE Position Paper** Product liability and AI liability directives – a Business Europe position paper, dated 14 April 2023 ([link](#)).
- Civil Code** Portuguese Civil Code (*Código Civil*), as approved by DL no. 47.344 of 25 November 1966, as amended ([link](#)).
- Comparative Law Study on** Comparative Law Study on Civil Liability for Artificial Intelligence, from Ernst Karner, Bernhard A. Koch, and

- Civil Liability for AI** Mark A. Geistfeld (Directorate-General for Justice and Consumers), competed in November 2020, and published in 2021 ([link](#)).
- Digital Services Act** Regulation (EU) 2022/2065 of the European Parliament and of the Council of 19 October 2022 on a Single Market for Digital Services and amending Directive 2000/31/EC ([link](#)).
- DL** Decree-Law (*Decreto-Lei*).
- DL 383/89** DL no. 383/89, of 6 of November, transposing into the Portuguese internal legal system the Product Liability Directive, as amended ([link](#)).
- EC** European Commission.
- EC 2021 Communication** Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions Empty – Fostering a European approach to Artificial Intelligence – Brussels, 21.4.2021 – COM(2021) 205 final ([link](#)).
- EP** European Parliament.
- EP 2017 Resolution** European Parliament resolution of 16 February 2017 with recommendations to the Commission on Civil Law Rules on Robotics (2015/2103(INL)) ([link](#)).
- EP 2020 Resolution** European Parliament resolution of 20 October 2020 with recommendations to the Commission on a civil liability regime for artificial intelligence (2020/2014(INL)) ([link](#)).
- EP 2022 Resolution** European Parliament resolution of 3 May 2022 on artificial intelligence in adigital age (2020/2266(INI)) ([link](#)).
- EU** European Union.
- Expert Group** Expert Group on Liability and New Technologies – New Technologies Formation.

<b>High-Risk AI System</b>	An AI System referred to in Article 6 of the AI Act.
<b>IAAIL</b>	International Association for Artificial Intelligence and Law ( <a href="#">link</a> ).
<b>IAR</b>	Impact Assessment Report.
<b>IP Code</b>	Portuguese Industrial Property Code ( <i>Código da Propriedade Industrial</i> ), as approved by DL no. 110/2018 of 10 December 2018, as amended ( <a href="#">link</a> ).
<b>Product Liability Directive</b>	Council Directive 85/374/EEC of 25 July 1985 on the approximation of the laws, regulations and administrative provisions of the Member States concerning liability for defective products (85/374/EEC), as amended ( <a href="#">link</a> ).
<b>RDR</b>	<i>Revista de Direito da Responsabilidade</i> ( <a href="#">link</a> ).
<b>Report on AI, the IoT and Robotics</b>	Report from the Commission to the European Parliament, the Council and the European Economic and Social Committee (Report on the safety and liability implications of Artificial Intelligence, the Internet of Things and robotics) – Brussels, 19.2.2020 – COM (2020) 64 final ( <a href="#">link</a> ).
<b>Report on Liability for AI</b>	Report from the Expert Group on Liability for Artificial Intelligence and other emerging digital technologies, prepared by ( <a href="#">link</a> ).
<b>SME</b>	Small and medium-sized enterprises.
<b>Strategy for AI in Europe</b>	Communication from the Commission to the European Parliament, the European Council, the Council, the European Economic and Social Committee and the Committee of the Regions (Artificial Intelligence for Europe) – Brussels, 25.4.2018 – COM (2018) 237 final ( <a href="#">link</a> ).
<b>TFUE</b>	Treaty on the Functioning of the European Union ( <a href="#">link</a> ).

**Trade Secrets Directive** Directive (EU) 2016/943 of the European Parliament and of the Council of 8 June 2016 on the protection of undisclosed know-how and business information (trade secrets) against their unlawful acquisition, use and disclosure, as amended ([link](#)).

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# GENERATIVE AI AND THE USE OF COPYRIGHTED DATA FOR ITS TRAINING

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## Abstract

This work, written as a legal opinion, seeks to clarify the contentious issue surrounding the use of copyrighted data for training generative AI models. The central inquiry revolves around the permissibility and conditions for employing copyrighted materials to train AI models with the intent of developing AI-based products. Given that this is currently a matter in dispute, an extensive review of scholarly texts and comparative law sources was undertaken. This opinion delves into discussions surrounding relevant pending cases addressing the intersection of copyright and generative AI and factual circumstances pertaining to the issue. Additionally, an analysis of pertinent case law was conducted. The Author's Guild v. Google Books notable case was analyzed to provide insights into this evolving legal issue. Moreover, international perspectives on copyright and generative AI, as reflected in draft regulations from other jurisdictions, are considered. The conclusion drawn from this examination suggests that the use of copyright-protected works to train generative AI models falls within the ambit of fair use.

This determination is in line with the constitutional purpose of Copyright Law of fostering the progress of science and the useful arts, ultimately serving the public interest. This principle emphasizes the need to balance copyright holders' rights with the societal goal of promoting innovation and creativity.

## INTRODUCTION

1. The growing and fast-paced development of what has come to be known as *Generative AI* and the discovery of its broad application potential have had a major impact on economic,

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legal, and social relations as a whole. Its capacity for innovation inspires concerns of all sorts related to its construction and deployment, from the protection of human rights, such as privacy, to the protection of copyrights.

2. The creation capability of generative AI also involves artistic creation<sup>2</sup>. That means it is possible to generate text, image, video, and audio upon the input of a large amount of data into training a machine learning<sup>3</sup> model. Data of many different types can be used for that purpose, and the output of such AI algorithms, being the result of a complex combination of features of the data fed to the model, the commands given to it, and its sophisticated learning process, can be something considered original.
3. On a more technical note, machine learning is the capability of AI systems to gain knowledge from real-world data by extracting its patterns. This learning process entails representation learning, that is, learning from experience (exposure to data) how to abstract and represent the world in terms of concepts (Goodfellow et al. 8), in a process similar to the acquisition of knowledge by humans. The more complex the hierarchy of concepts and abstract representations, structured as multiple layers of a neural network, the deeper the network, hence the term deep learning. Deep learning, a machine learning technique, constitutes the foundational technology in the field of generative AI.
4. Alongside the legal concern about the infringement of rights, specifically copyright and other intellectual property rights, there is also a concern about the freedom to develop new technologies in an open innovation environment. Balancing these competing issues is precisely the aim of this legal opinion.

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<sup>2</sup> Whether these outputs constitute artwork lies beyond the scope of this work.

58 <sup>3</sup> See <https://www.ibm.com/topics/machine-learning>

## REGULATION ON GENERATIVE AI AND COPYRIGHT LAW

5. Currently, several countries and supranational bodies are striving to find regulatory consensus for the creation and implementation of artificial intelligence. Set out below are some relevant positions extracted from these documents on the use of copyright-protected material in generative AI.
6. The final draft of the EU AI Act included transparency requirements for generative AI systems developers. Among them, there is the requirement for providers of general-purpose AI systems to publicly display a summary of the dataset used for the training of their models. A policy regarding compliance with EU copyright law is also required for generative AI systems developers. While Article 4(1) of Directive (EU) 2019/790 allows exceptions or limitations over copyright protection regarding text and data mining, allowing the extraction and reproduction of lawfully accessible content (such as content publicly available online), Article 4(3) of the same document expresses the possibility of reservations of rights by rightsholders, thus prohibiting the use of the content referred to in paragraph 1 (Council of the European Union).
7. The Brazilian proposal for AI Regulation (Draft Law 2338/23) also provides for the use of copyrighted data in AI systems: “Article 42. It does not constitute a copyright offense the automated use of works, such as extraction, reproduction, storage, and transformation, in data and text mining processes in artificial intelligence systems, in the activities done by research or journalism organizations and institutions, and by museums, archives, and libraries, provided that: I - it does not have as an objective the simple reproduction, exhibition or dissemination of the original work itself; II - the use occurs to the extent necessary for the objective to be achieved; III - the use does not unjustifiably prejudice the economic interests of the owners; and IV - it does not compete with the normal exploitation of the work.”<sup>4</sup> (Brazilian Federal Senate, 27).

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<sup>4</sup> Unofficial translation by the author.

8. In January 2024, Singapore proposed a draft framework for generative AI governance entitled “Model AI Governance Framework for Generative AI”, which seeks to establish a balanced approach to copyright concerns and data accessibility, considering the large volume of training data required for developing machine learning models. The same document mentions the fair use exception, recently included in the Singapore Copyright Act of 2021 (Infocomm Media Development Authority and AI Verify Foundation).
9. Japan holds a decentralized perspective on AI regulation, taking a soft-law approach to it. Nevertheless, since 2018 the Copyright Act of Japan included permission<sup>5</sup> for using copyrighted works without permission of the copyright holder as long as the purpose of the use does not involve human enjoyment of the thoughts and feelings expressed in the work, which is the case when it comes to using such content as training data for AI systems. Therefore, the use of copyrighted data for the purpose of “data analysis”<sup>6</sup> is explicitly allowed under the Japanese Copyright Act.
10. It is noteworthy that in the context of AI research and development the concern with guaranteeing copyright protection is tendentially subject to limitations and exceptions, provided that they will not unreasonably affect the interest of stakeholders. Due to the necessity of a significant amount of data for training AI models, excessive permissions and licensing requirements would hinder innovation. This trend is becoming global, as no country wants to be at a disadvantage in this technological race.

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<sup>5</sup> See Article 30-4 of the Japanese Copyright Act, <https://www.japaneselawtranslation.go.jp/ja/laws/view/4207->

<sup>6</sup> Defined in the Copyright Act of Japan as “the extraction, comparison, classification, or other statistical analysis of the constituent language, sounds, images, or other elemental data from a large number of works or a large volume of other such data” (Japan).

## RELEVANT PENDING CASES

11. At the present moment, there are many pending legal cases regarding the matter at issue, both in American Courts and in the High Court of Justice in London.
12. On December 7, 2022, a complaint against Microsoft Corporation, GitHub, Inc. and OPENAI, Inc. was filed, on behalf of two anonymous GitHub users supposedly affected by the companies' tool Copilot, a programming assistant that uses AI to suggest codes. The proposed class action lawsuit alleges that the AI-powered tool infringes copyright, because it "ignores License Terms and that it was trained almost exclusively on Licensed Materials"<sup>7</sup>. Since Copilot "was trained on millions—possibly billions—of lines of code publicly available on GitHub", the plaintiffs accuse Copilot of having removed or altered (without the authority of the copyright owners) "CMI from open-source code that is owned by Plaintiffs and the Class after the code was uploaded to a GitHub repository by incorporating it into Copilot with its CMI removed". The Plaintiffs argue that the outputs of the tool Copilot constitute derivative works based on the licensed materials used for training it. Thus, inducing Copilot users to copyright infringement by copying code whose CMI (Copyright Management Information) has been removed, which facilitates or conceals copyright infringement, turning the task of proving its authorship into something "impossible". Plaintiffs also claim that "Plaintiffs and the Class have suffered monetary, reputational, and other damages as a result of Defendants' conduct.". In their defense, GitHub Copilot said its machine learning model is trained on exclusively publicly available data, therefore it would be "in accordance with global copyright laws which permit the use of publicly accessible materials for computational analysis and training of machine learning models, and do not require consent of the owner of such materials"<sup>8</sup>, implying this would fall under the fair use

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<sup>7</sup> See [https://githubcopilotlitigation.com/pdf/06823/1-0-github\\_complaint.pdf](https://githubcopilotlitigation.com/pdf/06823/1-0-github_complaint.pdf)

<sup>8</sup> See [https://githubcopilotlitigation.com/pdf/06823/1-0-github\\_complaint.pdf](https://githubcopilotlitigation.com/pdf/06823/1-0-github_complaint.pdf)

doctrine. Publicly available materials that are protected by open source licenses provide terms and conditions under which the software can be used and shared by others. Even though open source licenses grant certain permissions and rights to users to freely use, modify, distribute, and contribute to a software project (therefore playing an important role in fostering the sharing of knowledge, innovation, and collaborative development), it requires certain conditions such as giving attribution to the original authors or ensuring that derivative works are also open source. In the case at stake, Copilot did not give attribution to the copyrighted data supposedly used for training the AI model.

13. There are several recent similar lawsuits against Open AI for copyright infringement among other claims. In short, they all claim that Open AI trained its LLM ChatGPT on their copyrighted work and that the outputs of it constitute derivative works of their creative works. Book authors' lawsuits against Open AI include *Authors Guild v. OpenAI Inc.*, U.S. District Court for the S. D. of California, No. 1:23-cv-08292; *Tremblay v. OpenAI Inc*, U.S. District Court for the N. D. of California, No. 3:23-cv-03223; *Chabon v. OpenAI, Inc.*, U.S. District Court for the N. D. of California, No. 3:23-cv-04625; *Silverman v. OpenAI Inc*, U.S. District Court for the N. D. of California, No. 3:23-cv-03416. Another similar example is *New York Times Co v. Microsoft Corp et al*, U.S. District Court, S. D. of New York, No. 23-11195.
14. The *Getty vs. Stability AI, Inc.* case, filed on February 3, 2023, in a UK court, claims that Stability AI infringes on Getty Images' intellectual property "on a staggering scale"<sup>9</sup>, by using millions of photographs from Getty Images' collection (with the associated text and meta-data) without a license, for the purpose of training its Stable Diffusion model, which uses machine learning techniques. Unauthorized reproduction of images for commercial purposes, such as those carried out by Stability AI, is explicitly forbidden on the Plaintiff's

websites. Plaintiff claims that “Often, the output generated by Stable Diffusion contains a modified version of a Getty Images watermark, creating confusion as to the source of the images and falsely implying an association with Getty Images. While some of the output generated through the use of Stable Diffusion is aesthetically pleasing, other output is of much lower quality and at times ranges from the bizarre to the grotesque. Stability AI’s incorporation of Getty Images’ marks into low quality, unappealing, or offensive images dilutes those marks in further violation of federal and state trademark laws.”<sup>10</sup> Getty Images says that “the unauthorized copies of Getty Images’ content made by Stability AI are neither transitory nor ephemeral, and they were made with the express aim of enabling Stability AI to supplant Getty Images as a source of creative visual imagery.”<sup>11</sup>, relying on all the financial costs and the time Getty Images spent constructing and maintaining its database. In this case, there is a strong undertone of competition for the market, where copyright infringement claims coexist with allegations of violation of trademark law in the cause of action. However, the underlying issue remains the use of copyrighted data to train generative AI models.

15. On October 18, 2023, Universal Music Publishing Group (UMG) and other music publishers filed a complaint against Anthropic, the generative AI company that created the LLM Claude 2. Plaintiffs allege “the systematic and widespread infringement of their copyrighted song lyrics by the artificial intelligence (“AI”) company Anthropic. In the process of building and operating AI models, Anthropic unlawfully copies and disseminates vast amounts of copyrighted works—including the lyrics to myriad musical compositions owned or controlled by Publishers.”<sup>12</sup>. On November 2023, the Plaintiffs submitted a preliminary injunction to the court, seeking two

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<sup>10</sup> See <https://aboutblaw.com/6DW>

<sup>11</sup> See <https://aboutblaw.com/6DW>

<sup>12</sup> See <https://storage.courtlistener.com/recap/gov.uscourts.tnmd.96652/gov.uscourts.tnmd.96652.1.0.pdf>

pieces of interim relief: that Anthropic “(1) refrain from reproducing the Works to train future AI models and (2) implement in its current AI models guardrails that consistently prevent output that reproduces, distributes, or displays the Works.”<sup>13</sup>. In its opposition to Plaintiff’s motion, Anthropic argued that the case was filed in the wrong court, according to its terms of use. The company further contended that Universal Music and other publishers used Claude 2 in a particular way that caused the chatbot to output copyrighted works, which is not the usual way other users use it, i.e., “plaintiffs themselves, not Anthropic, engaged in the ‘volitional conduct’ that is a prerequisite to direct copyright infringement liability for the outputs Plaintiffs’ attacks extracted”<sup>14</sup>. Also, Anthropic argued that in order to prevent a recurrence of the plaintiffs’ acts, extra safeguards have been put in place to prevent the LLM from providing copyrighted lyrics. Finally, the company refuted accusations of copyright infringement by referring to the fair use exception: “Using copyrighted content as training data for an LLM is a fair use under the law—meaning that it is not infringement at all”<sup>15</sup>.

16. Lastly, there is the first copyright infringement class action involving the use of images for training AI models (Setty), which is known as the Andersen and others v. Stability, Inc. case. It was filed on January 13, 2023, at a California court, by a group of artists who claim that Stability AI used their copyrighted images without permission or compensation. Here too the cause of action comprises copyright infringement, and violation of DMCA, among other tortious acts. Stability AI stated through a spokesperson that their use of such copyrighted images was legal under the fair use doctrine.

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<sup>13</sup> See <https://www.musicbusinessworldwide.com/files/2023/1141-Memorandum-in-Support-of-Preliminary-Injunction-1.pdf>

<sup>14</sup> See <https://fingfx.thomsonreuters.com/gfx/legaldocs/zgpokbjynpd/UNIVERSAL%20MUSIC%20ANTHROPIC%20LAWSUIT%20response.pdf>

<sup>15</sup> See <https://fingfx.thomsonreuters.com/gfx/legaldocs/zgpokbjynpd/UNIVERSAL%20MUSIC%20ANTHROPIC%20LAWSUIT%20response.pdf>



17. The cause of action of the cases briefly summarized above are fairly similar in that they all deal with the allegation of copyright infringement due to training machine learning models on copyrighted material without proper authorization. In all of them as well, the defense route of the defendant is to explicitly express or imply that the use made of the material is legal under the fair use doctrine and does not violate intellectual property rights.
18. The fair use doctrine under the U.S. Copyright Act (Section 107) provides a legal framework that allows for limited use of copyrighted material without the need for permission from the copyright holder under certain circumstances. Fair use is determined on a case-by-case basis, and there are four statutory factors that courts consider when determining whether a particular use qualifies as fair use: the purpose and character of the use, including whether such use is of a commercial nature or is for nonprofit educational purposes; the nature of the copyrighted work; the amount and substantiality of the portion used in relation to the copyrighted work as a whole, and the effect of the use upon the potential market for the copyrighted work.
19. As for the first factor, given that the use of copyrighted data by AI developers is intended to be highly transformative in its character, it can be argued that this first element favors the technology innovators' side. Even though all the abovementioned companies involved in using protected data for training their AI models are ultimately for-profit companies or the final aim of the training has a profit motive<sup>16</sup>, it can be sustained that the development of generative AI is socially beneficial, in line with the constitutional purpose of copyright law. As the Supreme Court of the U.S. has confirmed, "the primary objective of copyright is not to reward the labor of authors, but 'to promote the Progress of Science and useful Arts.'"<sup>17</sup> (Cox 321).

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<sup>16</sup> For example, Copilot is a subscription-based service, and therefore a commercial product, even though Copilot's function is based on Codex, a product developed, trained and maintained by OpenAI, Inc., a nonprofit corporation, whose subsidiary OpenAI, LP is a for-profit company.

<sup>17</sup> U.S. Const., Art. 14 I, § 8, cl. 8.

20. It is reasonable to assume that all the copyrightable works used for feeding AI models are in some way published works, which means that the second element of the fair use test also favors the AI developers' side.
21. As for the third factor of fair use, i.e., the amount and substantiality of the portion used in relation to the copyrighted work as a whole. It is debatable whether the training of AI models effectively involves the copying and use of copyrightable creative expressions. Rather, the statistical information about the structural elements of the works and the patterns extracted from the training data that matter when pre-training a machine learning model are not protectable by copyright. This fact weighs in favor of fair use. Given this sophisticated learning process, it is important to note that training an AI model with some material does not imply parts of it will necessarily be an output of such a model. Besides, there are means of preventing the model from generating parts of the exact data they were trained on, as will be discussed in the final session of this document.
22. Regarding the last factor of fair use, which analyzes the extent of the potential market harm for the copyright holders, since the training of AI models does not potentially affect the market value of the original works, it is possible to state that the training AI models on copyrighted materials amounts to fair use. Given the transformative character of the use, it is unlikely that it could substitute individual artworks and other creative expressions in their original or derivative markets since it does not compete with the original works.

## RELEVANT CASE LAW

23. In the *Author's Guild v. Google District Court*<sup>18</sup> case, a professional organization representing authors and writers, filed a class action lawsuit against Google on behalf of authors, clai-

ming that Google's book scanning, part of its Google Books project, constituted copyright infringement. The plaintiff argued that Google was making unauthorized use of copyrighted material without obtaining permission from the copyright holders.

24. The case started in 2005 and went through several stages of litigation over the years, reaching the proposition of a settlement agreement (not without significant opposition from various parties, including authors, publishers, and other organizations) between Google and the Author's Guild of America, that was rejected in 2011. The content of the attempted settlement (that became known as the Google Book Search Settlement Agreement) included a proposal for the creation of Book Rights Registry, a copyright society that would be responsible for collective rights management, specifically, for directing part of Google's revenue for making payments to the copyright holders of the digitized books.
25. In 2013, the district court of the Southern District of N.Y. ruled that Google's book scanning activities constituted fair use under U.S. copyright law. In 2015, this decision was affirmed by the Second Circuit, holding that the purpose of the Google Books project served a transformative purpose that provided significant public benefit, concluding that "(1) Google's unauthorized digitizing of copyright-protected works, creation of a search functionality, and display of snippets from those works are non-infringing fair uses. The purpose of the copying is highly transformative, the public display of text is limited, and the revelations do not provide a significant market substitute for the protected aspects of the originals. Google's commercial nature and profit motivation do not justify denial of fair use. (2) Google's provision of digitized copies to the libraries that supplied the books, on the understanding that the libraries will use the copies in a manner consistent with the copyright law, also does not constitute infringement. Nor, on this record, is Google a contributory infringer."(United States Court of Appeals for the Second Circuit).

26. Therefore, from the *Author's Guild v. Google* case, we extract that it is legal under the fair use doctrine of the U.S. copyright statute to use copyrighted data to train a discriminative machine learning model, which arguably constitutes a precedent on the generative model's side. Even though the aforementioned case deals with a situation involving the use of AI for creating a discriminative rather than a generative model, it can be argued that this case can still set a precedent for the issue under review, considering that the main difference between derivative and generative AI models lies in their outputs. While generative AI is about creating content based on learned patterns, discriminative AI is about recognizing, classifying, or predicting based on input data. Both share the fundamental process of learning patterns from data to perform their respective objectives effectively.

## **Conclusion and recommendations**

27. In the search for a consistent solution, the initial step is to separately consider the stages of model training (pre-training and fine-tuning) and the process by which it generates new content.
28. Assuming the separation proposed above, and in the footsteps of the precedent set by the *Author's Guild v. Google* case, simply training machine learning (derivative or generative) models with copyrighted data should not constitute copyright infringement, because training does not involve copying and use of the creative expression in works.
29. Although training an AI model on publicly available material should not constitute copyright infringement, a recommended practice would be transparency. Machine learning model developers should publish a summary of all the data used in the training of their model, preferentially making explicit those that are protected under copyright law, including open source licenses.

30. The second stage of the issue is a more challenging matter, since the inner processes by which generative algorithms generate its outputs can be complex and difficult for humans to interpret fully. In most cases, it is virtually impossible to know exactly which data points from the training dataset were used to generate a specific output from a machine learning model, since these models learn complex relationships and patterns from the universe of training data, and their decision-making processes are not easily traceable -- to produce a new output they incorporate randomness while applying the patterns learned during training. This means that individual data points from the training set do not (or at least should not) correspond directly to specific outputs. While it is difficult to determine exactly which data points contributed to a specific output, researchers have been exploring methods to provide some level of interpretability and traceability for machine learning models, offering insights into the model's behavior and highlighting which parts of the input data may have been more influential in generating a particular output. This all means that it would be an unreasonable recommendation to impose an obligation that attribution and copyright authorizations be required based on specific outputs. These considerations should be incorporated into the interpretation of what is considered fair use for generative AI models.
31. The information above explains why it is inaccurate to consider every generative AI model's output a derivative work and to abstractly assume that AI violates intellectual property. Just like in the Google Books case, the mere speculative possibility that a user will misuse a generative AI service in an infringing way does not make the AI developer a contributory infringer, it is the user the volitional actor. Thus, what is in question is the use of the AI model's outputs by the person operating it, which can claim authorship<sup>19</sup> for the raw outputs. The only way

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<sup>19</sup> As established by the section 306 of the U.S. Copyright Act, work that wasn't created by human beings are not capable of copyrightable authorship (United States, Congress, section 306).

to determine whether a specific output constitutes substantial similarity under the U.S. copyright law (i.e. if a user used the AI service in an infringing manner) is through a case-by-case analysis, the same as that between any copyright-protected work and human creation.

32. However, this does not mean that measures should not be taken to prevent AI models from generating content very similar to that on which they were trained. There are several techniques for this purpose, even though this is still an ongoing research area. Most major AI developers, such as Open AI and Anthropic, are already including safeguards to prevent potentially infringing outputs. It is also important to include the concern with intentionally infringing use of generative AI applications in the guidelines of good practices for prompt engineering and to include measures to prevent it in terms of use.
33. Viewing the training of machine learning models on protected data as fair use under U.S. Copyright Law is the interpretation that more fully satisfies its constitutional purpose of promoting scientific progress. Moreover, it fosters democratic access to technology, preventing monopolies and ensuring smaller AI developers can compete in the technological race without barriers.

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