LUISS

Corso di laurea in Giurisprudenza

Cattedra Media Law

AI as a creative partner: exploring the boundaries of Freedom of Expression in the Age of Generative Technology

Chiar.mo Prof. Antonio Punzi

RELATORE

Chiar.mo Prof. Mario Esposito

CORRELATORE

Arianna Pagliuca Matr. 168593

CANDIDATO

Anno Accademico 2024/2025

Chapter 3: Navigating the Legal Scenario of AI-Generated Music: Case Studies and Challenges

INTRODUCTION

In the realm of creativity and expression, generative artificial intelligence (AI) has recently become an unstoppable force that has drastically altered how people create, share, and interact with information. AI systems can now contribute, sometimes independently, to the production of words, music, images, and audiovisual materials that were once the sole purview of human authors. These amazing advances raise serious concerns among legislators, academics, and the general public by challenging fundamental legal and philosophical presumptions that support freedom of expression, creativity, and intellectual property. This thesis's primary goal is to comprehend and investigate how generative AI affects the principle of freedom of expression, namely from the perspectives of democratic theory, legal doctrine, and the creative industry. It hinges on the idea that freedom of expression is not only essential to democratic societies but also serves as a means of information acquisition, cultural engagement, and personal self-realization. Consequently, any technological advancement that changes the ways in which people express themselves-like generative AI-inevitably changes the legal and moral framework of this fundamental freedom. By charting the development of freedom of expression from its philosophical and legal roots to its contemporary implementation in digital environments, Chapter One establishes the foundation for this examination. Using classical liberal theory, particularly John Stuart Mill's writings, as well as international and constitutional legal frameworks (such as Article 10 ECHR, Article 21 of the Italian Constitution, and Article 19 ICCPR), the chapter examines how the digital and algorithmic turn has completely changed the ways in which people express themselves. In a time where private platforms and algorithms control the public sphere, it emphasizes how generative AI undermines conventional ideas of authorship, accountability, and intent by developing expressive content on its own. It also calls into question the state's authority to control speech. With an emphasis on generative models, Chapter Two discusses the growing regulatory frameworks that aim to control the creation and application of AI technology. It offers a comparison of several governance models, such as the EU's risk-based approach under the AI Act, China's state-controlled system and the US' market-driven regulatory philosophy. The conceptualization of freedom of expression, innovation, and fundamental rights in the era of artificial intelligence is

examined in this chapter, along with the suitability of existing legal tools to handle the dual nature of generative AI-as a tool of empowering and a potential vector of censorship, manipulation, and disparity. The legal ambiguity surrounding authorship, copyright, and responsibility in AI-generated works receives particular attention. The theoretical and legal understandings cultivated in the preceding chapters are applied to the particular setting of AI-generated music in Chapter Three. This chapter explores the ways in which generative AI is changing the music business, posing difficult moral and legal issues related to copyright ownership, authorship, originality, and the just compensation of human producers. The chapter examines how courts, legal scholars, and policymakers are resolving the escalating conflicts between conventional music stakeholders and the emergence of AI-generated content by examining current case law, scholarly literature, and regulatory developments. A large amount of these observations are based on an in-person interview with Luigi Brescia, Head of Copyright Affairs at the Saifam Group, who offered insightful opinions on the music industry's present problems. The discussion specifically centered on the proactive measures being taken by the Italian collecting society SIAE to protect its artists from the dangers posed by generative AI tools, particularly with regard to the unauthorized use of copyrighted works as training datasets and the absence of recognition and transparency in AI-generated outputs. The changing role of collective management organizations is also highlighted, as these groups are becoming more active in defending the rights of their members, who are performers, composers, and lyricists whose works run the risk of being used in the development and output of generative AI systems without their permission or fair compensation. In order to provide a thorough grasp of the opportunities and difficulties presented by generative AI, this thesis takes an interdisciplinary approach, referencing legal theory, political philosophy, media studies, and developing AI policy. In the end, it makes the case that generative AI needs to be viewed as a creative collaborator whose application necessitates a fresh examination of the limits of free speech in the digital world, rather than just as a technical instrument. To guarantee that freedom of expression, even when it is enhanced by technology, stays firmly grounded in human dignity, autonomy, and democratic participation, it is necessary to reevaluate current legal doctrines and governance models in light of the conflict between innovation and control, empowerment and risk.

CHAPTER ONE

REDEFINING FREEDOM OF EXPRESSION IN THE AGE OF GENERATIVE AI

SUMMARY: **1.1** *The legal foundations of Freedom of Expression*; **1.2** *The evolution of Freedom of Expression in the Digital Era: Understanding the new scenario*; **1.3** *Generative AI: A new frontier for creative expression or a threat to free speech?*; **1.4** *Legal and Ethical frontiers: Charting the boundaries;* **1.5** *Empowering or Restricting Voices: How Generative AI challenges traditional norms of expression;* **1.6** *Censorship vs. Innovation: The new debate on Free Speech.*

1.1 *The legal foundations of Freedom of Expression*

Freedom of expression is essential to the development of the human potential and forms the basis of any free, democratic, and participatory society[1]. It protects the most basic of human freedoms, namely the right to think and share opinions with others. The realization of freedom of expression is a major factor in the full and effective engagement of citizens, which is necessary for democracy to work. Moreover, it also permits the enjoyment of other rights, such the freedom to take part in cultural activities and the right to profit from advancements in science and their applications[2]. Many philosophers emphasize several often-compatible justifications for valuing free speech. The main reason is frequently because it is thought to be necessary for any political democracy; without the ability for people and organizations to voice their thoughts, feelings, and ideas, democracy cannot exist; in every democracy, people must be able to debate, deliberate, and demonstrate. However, the democratic argument is not the only one. Other frequently mentioned arguments include the notion that self-expression, the ability to communicate, the ability to express sentiments and emotions, and the ability to pursue artistic endeavors are all necessary for the concept of individual autonomy, which makes free expression a good in

[1] A.TOLEDO, S.SHERIDAN, *User-Generated Content: Tensions Between Freedom of Expression and Copyright*, in J. Coates, V. Owen, S. Reilly (a cura di), *Navigating Copyright for Libraries: Purpose and Scope*, De Gruyter Saur, Berlin-Boston, 2022, pp. 467-496, disponibile online al link: https://doi.org/10.1515/9783110732009-021 [ultimo accesso 5 febbraio 2025].

[2] *Ibidem.*

and of itself [3]. John Stuart Mill is typically given credit for a third argument, which holds that the search for truth requires freedom of expression. This relates to the American idea of a "marketplace of ideas", which holds that the best way to arrive at a trustworthy understanding of the truth is for everyone to be free to engage in such a marketplace, debating or accepting whatever they choose [4]. The English philosopher, who penned evocative volumes about freedom, is still remarkably relevant today. He particularly discusses freedom of thought and speech in the second section of his "*Essay on Liberty*". He adopts a strong stand right away, claiming that suppressing the expression of a viewpoint is a crime against mankind as well as against an individual since it would be stealing it.

« […] future generations as well as the living, those who disagree with the opinion even more than those who share it: if the opinion is correct, they are deprived of the opportunity to move from error to truth; if it is wrong, they lose a benefit almost as great—the clearer and more vivid perception of truth, highlighted by contrast with error» (p. 21).

Since every viewpoint contributes to human diversity, there are no viewpoints that should be suppressed. Others would not be able to benefit from the minority viewpoint's usefulness if it were true or legitimate. On the other hand, if it were wrong, contemplating it and learning more about the nature of its mistake would deepen the truth's clarity and encourage a more assured adherence to it. Therefore, even if there were only one individual who disagreed with a widely held belief, he would have the same freedom to voice his opinions as the one who controls the thinking of others [5]. As previously said, liberal nations provide substantial legal protection for freedom of expression. Two of the numerous strong arguments in favor of doing so have grown in importance over time. The first highlights the positive social effects of freedom of expression. According to this perspective, freedom of expression is beneficial because it fosters democratic self-

---

[3] *Ibidem.*

[4] R.O'CONNELL, *Freedom of Expression*, in *Law, Democracy and the European Court of Human Rights*, Cambridge University Press, Cambridge, 2020, pp. 84–119.

[5] S. RAPACCINI, *Libertà di espressione, fino a che punto? La lezione di Mill*, in «IlPensieroStorico.com», 2022, disponibile online al link: https://ilpensierostorico.com/liberta-di-espressione-fino-a-che-punto-la-lezione-di-mill/ [ultimo accesso 13 marzo 2025].

government, an open marketplace for ideas, and the pursuit of truth, among other benefits. The second defense of free speech centers on its inherent advantages. According to this view, expression is valued more for its inherent value to the individual than for the outcomes it generates. Expression is regarded as an essential component of personal development, self-realization, and individual liberty[6]. One crucial component of a free society is the capacity to express one's opinions and pursue any research avenues that come to mind. Given its crucial function in fostering the open interchange of ideas and the development of one's character and potentialities as a human being, freedom of expression would be safeguarded under this approach even if it did not benefit society as a whole. To accommodate other significant values, societies that acknowledge the right to free expression will unavoidably need to restrict that freedom. Sometimes the democratic discourse and pursuit of truth are habitually claimed to support free expression itself, even while the expressive behaviors of others may unjustifiably damage reputation, privacy, equality, and public safety[7]. However, there isn't clear agreement on when these risks warrant limiting free expression. Furthermore, it has been said that the means of limiting speech-such as government censorship-pose more risks than the societal evils they are intended to stop. It should come as no surprise that balancing freedom of expression with conflicting social norms frequently leads to conflict and discord. To fairly resolve conflicts between citizens and between citizens and their governments, however, a right balance must be struck[8]. The foundation of any democratic society and the distinguishing characteristic of this model is freedom of expression, which has been positioned at the center by European constitutionalism. Because of its intimate ties to numerous other rights and freedoms guaranteed by the Constitution, as well as its symbolic importance, which has made it a defining feature of each democratic system, freedom of expression is crucial [9].

---

[6] M. GOSWAMI (VEENU), *Algorithms and Freedom of Expression*, in W. Barfield (a cura di), *The Cambridge Handbook of the Law of Algorithms*, Cambridge University Press, Cambridge, 2020 (Cambridge Law Handbooks), pp. 558–578.

[7] *Ibidem.*

[8] *Ibidem.*

[9] O. POLLICINO, *La prospettiva costituzionale sulla libertà di espressione nell'era di Internet*, in «Media Laws», 1, 2017.

However, as this right is so important, it shouldn't be assumed that its scope cannot be restricted or limited, either to stop abuses or to balance its exercise with other rights that are just as worthy of constitutional protection. Freedom of expression has been marked by inherent flexibility since its first solemn declaration in Article 11 of the Declaration of the Rights of Man and of the Citizen of 1789: «The free communication of thoughts and opinions is one of the most precious rights of man; every citizen may therefore speak, write, and print freely, except to answer for the abuse of this freedom in cases determined by law»[10]. In terms of freedom of expression, this characteristic is not unique; rather, it embodies the core of the European "DNA". This essence was most eloquently expressed in the European Convention on Human Rights, which gave the Council of Europe's member states a common tool for protecting human rights. It was structured on two levels: first, it affirmed this freedom solemnly; second, it established a number of restrictions that adhered to the standard guarantees of a liberal state, including: the need for a legal basis; adherence to the principle of proportionality, and the protection of interests that are relevant to the constitution. This paradigm influences European states, which by definition view the defense of freedom of expression as a right that must be balanced and, as such, occasionally give way to the imperative necessity to defend other rights. Two essential "parameters" are established by the European Convention on Human Rights to help determine the extent of protection afforded to expressions that qualify as an exercise of freedom of expression[11].

Article 10 ECHR holds:

«1. Everyone has the right to freedom of expression. This right shall include freedom to hold opinions and to receive and impart information and ideas without interference by public authority and regardless of frontiers. This Article shall not prevent States from requiring the licensing of broadcasting, television or cinema enterprises.

2. The exercise of these freedoms, since it carries with it duties and responsibilities, may be subject to such formalities, conditions, restrictions or penalties as are prescribed by

---

[10] *Ibidem.*

[11] *Ibidem.*

law and are necessary in a democratic society, in the interests of national security, territorial integrity or public safety, for the prevention of disorder or crime, for the protection of health or morals, for the protection of the reputation or rights of others, for preventing the disclosure of information received in confidence, or for maintaining the authority and impartiality of the judiciary».

Freedom of expression has been given a wide range by the ECtHR. More in the specific, five points are crucial: Firstly, the freedom of expression encompasses subjective qualifications and opinions in addition to the right to receive and distribute factual information[12]. Secondly, even though the Court places restrictions, the law permits parody. The Court has even acknowledged that it may be permissible to publish a fake news story in accordance with the Convention. Thirdly, the freedom of expression encompasses the ability to make offensive and contentious remarks. Fourthly, when one party asserts the right to privacy, the Court follows a prescribed procedure. Last but not least, the European Court of Human Rights has decided numerous instances pertaining to online freedom of expression. It has acknowledged, among other things, that the Internet is a fertile ground for artistic and creative expression, such as through memes and other humorous and artistic expressions; that anonymity can play a significant role in the right to freedom of expression, particularly in nations where political criticism is severely restricted by the government; and that, generally speaking, the same rules apply to expressions made online as they do offline [13]. It is crucial to emphasize that the European Court of Human Rights' interpretative work in interpreting Article 10 has produced comforting results about the real preservation of this freedom, as we move from the theoretical framework to its practical application in case law. According to a cohesive examination of the strategies employed by the Court of Justice and the Strasbourg Court, freedom of expression can surely have restrictions, indicating that its reach is not limitless. However, identifying these boundaries is the key problem. According to the European Convention on Human Rights, limitations on this freedom are established by measures that are deemed "necessary in a democratic society" to achieve particular goals.

---

[12] B. VAN DER SLOOT, *Regulating the Synthetic Society: Generative AI, Legal Questions, and Societal Challenges*, Bloomsbury Academic, Londra, 2024.

[13] *Ibidem.*

However, these goals include a broad spectrum of interests, which can vary greatly from broader public interests (like national security) to the defense of individual rights (like preserving one's reputation). The bar for enforcing limits is notably lower in the European setting, which means that justifiable restrictions on the right to free speech can be implemented without necessarily satisfying the clear and present danger requirement [14]. The Court must first ascertain whether there is an "expression" before determining whether Article 10 ECHR applies in a particular case. In its well-known emphasis on the fact that the freedom of expression is "applicable not only to information or ideas that are favorably received or regarded as inoffensive or as a matter of indifference, but also to those that offend, shock, or disturb the State or any sector of the population", the Court has offered a broad interpretation of this concept. Additionally, the Court has ruled that Article 10 protects both the media choice and the content of the exchanged information. This is because the form that an expression adopts can have a direct connection to and relevance to the message being conveyed. Article 10 of the ECHR expressly protects traditional modes of expression, including producing, publishing, and distributing books and articles; giving speeches; handing out pamphlets; participating in public debates; and writing letters. Additionally, modern means of expression including social media and audiovisual use are covered under Article 10 ECHR. This covers everything from radio and television to creating or displaying movies, exchanging files, distributing user-generated content, developing applications, and sharing and like articles. The freedom of artistic creation is also included in the freedom of expression [15]. Apart from Article 10 ECHR, the normative basis of freedom of expression is reinforced by another international legal instrument[16]. According to Article 11 of the European Union's Charter of Fundamental Rights, "everyone has the freedom to freely exchange ideas and information without interference from the government"[17]. Additionally, the American

[14] O. POLLICINO, *La prospettiva costituzionale sulla libertà di espressione nell'era di Internet*, in «Media Laws», 1, 2017.

[15] J. GERARDS, *The Right to Freedom of Expression and of Information*, in J. Gerards (a cura di), *Fundamental Rights: The European and International Dimension*, Cambridge University Press, Cambridge, 2023, pp. 81–115.

[16] EUROPEAN UNION. (2012) *Charter of Fundamental Rights of the European Union*, 2012/C 326/02. Official Journal of the European Union, C 326, pp. 391–407.

[17] *Ibidem.*

Convention on Human Rights (ACHR) acknowledges the right to freedom of thought and speech in Article 13, permitting limitations only when mandated by law and required to safeguard the rights of others or public order[18].

Unquestionably, the idea of freedom of expression in the Italian legal system has evolved and been clearly influenced by a number of elements, including careful case law and legal scholarship[19]. After first taking a wholly "negative" approach to the entire range of social communication activities, the State now seems to be shifting toward the use of instruments that enable it to "positively" interfere in the processes that shape public opinion. Freedom of expression would take on a new dimension as a vital instrument for bridging the gap between the State and society, rather than just a private domain that needs to be shielded from excessive public or private intervention. It is no accident, in fact, that the ideal of freedom of expression has endured and continues to inspire new democratic institutions and experiences, even in the wake of the fall of authoritarian governments where the subordination of communication media to politics reigned. As a result, the State is forced to take on a new role: that of guarantor of the broad conditions required to establish and preserve "information pluralism"[20]. Article 21 of the Italian Constitution lays out the fundamentals of freedom of expression, specifically stating:

«Everyone has the right to freely express their thoughts through speech, writing, and any other means of dissemination. The press cannot be subject to authorizations or censorship. Seizure may be carried out only by reasoned order of the judicial authority in the case of crimes expressly authorized by the law on the press, or in the case of violations of the provisions that the same law prescribes regarding the identification of those responsible. In such cases, when there is absolute urgency and timely intervention by the judicial authority is not possible, the seizure of periodical press may be carried out by officers of the judicial police, who must immediately, and no later than twenty-four hours, report it to the judicial authority. If the judicial authority does not confirm it within the following

---

[18] ORGANIZATION OF AMERICAN STATES (OAS). (1969) *American Convention on Human Rights "Pact of San José, Costa Rica"*. San José, 22 November 1969.

[19] N.STAMILE, *Brevi note sulla libertà di espressione nell'ordinamento giuridico italiano*, in «Derecom», 7, 2011, p. 1.

[20] *Ibidem.*

twenty-four hours, the seizure shall be deemed revoked and void. The law may establish, through general provisions, that the means of financing the periodical press must be disclosed. Printed publications, performances, and all other displays contrary to public morality are prohibited »[21]. It is clear from the outset that this idea is a fundamental component of our democratic system. This is a commonly held belief in both case law and legal doctrine. It is essentially the "cornerstone" of the democratic system, according to the Constitutional Court itself [22].

According to Article 2 of the Constitution, freedom of expression must really be regarded as one of the individual's inviolable rights; as such, its use may be subject to a weighing and balancing decision when it conflicts with other fundamental rights. The precise definition of the content of freedom of expression is up for debate. Since this situation is protected under Article 15 of the Constitution, it seems that the specific object of this freedom is not the right to freely communicate with a specific recipient, but rather the right to freely express one's thoughts to an undefined audience of potential recipients, or the public, regardless of the content of those thoughts (within the legally specified bounds)[23]. As a result, the previously mentioned Article 21 covers all forms of communication that can appear through any medium, including radio, television, film, theater, etc., in addition to written and spoken communication. While the first paragraph's linguistic formula is general, the following paragraphs expressly mention and emphasize freedom of the press, which was deemed to be the main manifestation of freedom of thought at the time the Constitution went into effect. It is important to note that three principles are outlined with regard to press freedom, albeit in brief and deferring a more thorough discussion to another context: the prohibition of authorizations or censorship, the prohibition of seizure (except in certain circumstances), and the duty to reveal funding sources. The prohibition of censorship or authorizations must be interpreted as a restriction of applying any kind of prior administrative control, such as censorship, to the

---

[21] *Ibidem.*

[22] CONSTITUTIONAL COURT, April 17, 1969, no. 84.

[23] N.STAMILE, *Brevi note sulla libertà di espressione nell'ordinamento giuridico italiano*, in «Derecom», 7, 2011, p. 1.

activity of generating printed material or its content[24]. The article's second premise deals with a form of interference that takes place after publication, namely in all extraordinary situations where a crime is committed through the media and is taken into consideration by the legislator. In conclusion, publishing houses have the option to reveal their funding sources. Making an analysis of Article 21's first paragraph, it ensures the freedom to voice one's opinions and the freedom to share them in a way that will reach the greatest number of recipients. The constitutional guarantee does, in fact, explicitly outline its parameters: it safeguards the freedom of message content as well as the freedom to distribute it in whatever way, both as a personal expression (even when it is addressed to the general public) and as a freedom to circulate such expressions[25].

In North America, the holy protection of the right to free speech, which was inherited from the First Amendment, confirms the legal system's exceptionality, giving the constitutional paradigm of freedom of expression a completely different character [26].

«Congress shall make no law respecting an establishment of religion or prohibiting the free exercise thereof; or abridging the freedom of speech, or of the press; or the right of the people peaceably to assemble, and to petition the Government for a redress of grievances»[27]. Everyone has the right to freedom of opinion and expression, according to Article 19 of the Universal Declaration of Human Rights. Additionally, "Everyone shall have the right to freedom of expression", according to Section 2 of Article 19 of the International Covenant on Civil and Political Rights. As stated by this viewpoint, the right to freedom of expression is created and defined by these international conventions and the ratification of those conventions by all countries. Freedom of expression is not a

---

[24] *Ibidem.*

[25] *Ibidem.*

[26] O. POLLICINO, *La prospettiva costituzionale sulla libertà di espressione nell'era di Internet*, in «Media Laws», 1, 2017.

[27] *Freedom of Expression – History* (in corsivo), disponibile online al link: https://www.democracyweb.org/study-guide/freedom-of-expression/history [ultimo accesso 13 marzo 2025].

timeless moral right that existing before the tools of international law; rather, it is a postulated, datable legal right[28]. The full text of Article19 is as follows:

« 1. Everyone shall have the right to hold opinions without interference.

2. Everyone shall have the right to freedom of expression; this right shall include freedom to seek, receive and im- part information and ideas of all kinds, regardless of frontiers, either orally, in writing or in print, in the form of art, or through any other media of his choice.

3.The exercise of the rights provided for in the foregoing paragraph carries with it special duties and responsibilities. It may therefore be subject to certain restrictions, but these shall be such only as are provided by law and are necessary, for respect of the rights or reputations of others, for the protection of national security or of public order, or of public health or morals. »

The International Covenant on Civil and Political Rights and the Universal Declaration of Human Rights are, at the very least, legally binding when ratified by countries or established as standards of customary international law. Having said that, a closer look at the wording of these texts shows that they refer to and declare freedom of expression to be a right under international law going forward, assuming such right already existed. They are comparable in that regard to the First Amendment of the US Constitution, which speaks of "the freedom of speech" as though its terms and extent were separate from and before the First Amendment[29]. In any case, when these international and domestic legal instruments declare a legal right to freedom of expression, it's really important to find out if there is, in fact, a universal moral right to freedom of expression and, if so, what that right's scope and content are. There may be significant ramifications for how legal documents pertaining to freedom of expression or freedom of speech should be interpreted, as well as for how we view states that treat expression differently than we do, if there is no such moral right or if the moral right has a content and scope that are very different from what people think. It's interesting to see the differences among moral and

[28] L.ALEXANDER, *Is There a Right of Freedom of Expression?*, Cambridge University Press, Cambridge, 2005 (Cambridge Studies in Philosophy and Law).

[29] *Ibidem.*

political philosophers who have tackled this problem. For instance, John Rawls does not include freedom of expression as one of the human rights that the international community must uphold, despite his belief that it is a liberty that a decent liberal society must offer. Conversely, some contend that Rawls' recognition of human rights is empirically dependent on a democratic government, which necessitates freedom of expression[30]. A person is free to seek for, receive, and share information and ideas of all types in addition to having the right and freedom to express their own opinions. Therefore, the right of others to "receive" information and ideas is equally violated when someone's freedom of expression is illegally restrained. Consequently, freedom of expression has two facets. On the one hand, it demands that no one be unilaterally prevented from voicing their own opinions. It is a right that each person has in that sense[31]. However, it also suggests a communal right to access other people's ideas and to acquire any information at all. Individual freedom of speech extends beyond the theoretical acknowledgement of the right to write or talk. It also encompasses-and is inextricably linked to-the freedom to disseminate ideas and ensure that they reach as many people as possible using whatever medium that is judged suitable. Thus, ideas and information are indivisible concepts that are expressed and shared. In its social aspect, freedom of expression facilitates mass communication and the sharing of knowledge and ideas between people. It encompasses everyone's freedom to try to share his own opinions with others as well as the right to hear other people's thoughts and news. For the typical citizen, having access to knowledge in general and understanding other people's viewpoints are equally as vital as having the freedom to express his own. Simultaneously, these two aspects of the right to free speech are protected[32]. Regardless of boundaries, the right to freedom of speech encompasses the rights to seek, receive and impart. The exchange of ideas and information in whatever form, whether verbally, in writing, in print, as art, or in any other medium of one's choosing, is protected. Any limitations on exercising the right to free speech must be

---

[30] L.ALEXANDER, *Is There a Right of Freedom of Expression?*, Cambridge University Press, Cambridge, 2005 (Cambridge Studies in Philosophy and Law).

[31] N. JAYAWICKRAMA, *The Right to Freedom of Expression*, in *The Judicial Application of Human Rights Law: National, Regional and International Jurisprudence*, Cambridge University Press, Cambridge, 2002, pp. 663–720.

[32] *Ibidem.*

"established by law", "prescribed by law", or "provided by law" (1CCPR 19), according to ACHR 13. The term "everyone" encompasses both legal and natural individuals as well as a limited corporation engaged in economic activity. The form in which ideas and information are communicated is just as much protected by the right to freedom of expression as the content of those statements. Like language and art, shape and content can be inseparable[33].

1.2 *The evolution of Freedom of Expression in the Digital Era: Understanding the new scenario*

By creating new technological frameworks that provide people and collective groupings more opportunities to contribute to the development of their own culture, the digital age has the inherent ability to influence the idea of democratic culture. It is possible to view the Digital Era[34] as the progress of an evolutionary system where knowledge turnover is both extremely high and increasingly beyond human control, making it a period in which managing our lives becomes more challenging. For instance, the search function of inadvertently matching words-which frequently have numerous meanings-is replaced with technology that understands meaning in the second generation of the Internet, also known as "the semantic web". Software agents will eventually share knowledge inside this form of the Internet without the need for human intervention. On the other hand [35], our comprehension of the information about our relationships with the outside world that

---

[33] N. JAYAWICKRAMA, *The Right to Freedom of Expression*, in *The Judicial Application of Human Rights Law: National, Regional and International Jurisprudence*, Cambridge University Press, Cambridge, 2002, pp. 663–720.

[34] J.SHEPHERD, *What is the Digital Era?*, in G. Doukidis, N. Mylonopoulos, N. Pouloudi (a cura di), *Social and Economic Transformation in the Digital Era*, IGI Global Scientific Publishing, 2004, pp. 1-18, disponibile online al link: https://doi.org/10.4018/978-1-59140-158-2.ch001 [ultimo accesso 5 febbraio 2025].

is ingrained in our DNA, produced in conjunction with technology, and publicly accessible online, calls into question our presumptions of control. Is it possible to regulate these alterations and their spread? The Digital Era has enormous social and economic ramifications that will only grow as technology becomes more knowledge-based, our daily lives and self-perception become increasingly intertwined with it, and it has a "life" of its own. Building sustainable socioeconomic partnerships with technology and the enhanced knowledge it facilitates will be made easier if we comprehend the progress of the Digital Era. It is commonly acknowledged that there are unquestionable advantages for society from the link between ICT and freedom of expression. Above all, the digitalization of communication instruments represents a significant advancement in social awareness and creativity. Bertot, Jaeger, and Grimes [36]have emphasized that the development of efficient law enforcement weapons against corruption and the facilitation of transparency processes may represent a first beneficial effect. However, ICT certification as a tool to reveal any human rights violations is of far greater relevance. ICTs enhance all forms of connection and create communication bridges between people, promoting the sharing of ideas and viewpoints and advancing society overall. Access to the Internet, which is a communication tool focused on interactions unlike previous media, must be considered the major advance in this field. The Internet becomes a tool for bolstering people's right to freedom of expression by enabling the sharing of information with multiple receivers. However, technology also exposes people to previously unheard-of threats because it causes these rights to move into the digital realm. These days, offenses of all kinds, including filtering, banning, and even disconnecting access to technology, frequently impede the same freedom of expression that new technologies have facilitated [37]. Rapid technological advancement since the Industrial Revolution has drastically changed daily life and human labor. Machines have taken over many monotonous or physically taxing tasks, reducing the workload for humans and boosting output. Artificial Intelligence (AI), an area of invention intended to mimic and, in certain situations, outperform human cognitive functions in a variety of disciplines, is

---

[36] J.COCCOLI, *The Challenges of New Technologies in the Implementation of Human Rights: An Analysis of Some Critical Issues in the Digital Era*, in «Peace Human Rights Governance», 1(2), 2017, pp. 223-250.

[37] *Ibidem.*

one of the most notable developments along this trajectory[38]. George Boole created a formal language for logical reasoning in 1847, which laid the groundwork for artificial intelligence. Alan M. Turing's theoretical exposition of the Turing machine, a conceptual apparatus that established the foundation for contemporary computing, came next in 1936. The first artificial neuron model was presented by Warren McCulloch and Walter Pitts in 1943. John von Neumann and Oskar Morgenstern developed decision theory in 1944, which offered a thorough framework for simulating agents' preferences and logical behavior[39]. John McCarthy first used the phrase "Artificial Intelligence" at the Dartmouth Conference in the summer of 1956, marking the official beginning of the field. This incident signaled a sea change in the field's growth and scholarly prominence. Following the creation of the first universal problem solver in 1957, McCarthy unveiled LISP, a programming language intended especially for AI applications. Further solidifying artificial intelligence as a separate and quickly developing field was the first International Conference on Artificial Intelligence, which took place in Washington in 1970 [40]. The historical development of artificial intelligence is intricately linked to fields like neuroscience, conceptual holism, and non-rationalist philosophies, highlighting its status as an intellectual and scientific construct. In its broadest sense, artificial intelligence (AI) is a field of study and technology that seeks to build hardware and software that can carry out operations that normally call for human intelligence. These systems are made to simulate cognitive processes as perception, learning, reasoning, and problem-solving[41]. One of the main characteristics of contemporary AI is its dependence on outside information sources, particularly large data, to maximize performance in certain tasks. AI has consequently emerged as a key element in several industries, such as manufacturing, healthcare, finance, and logistics. In addition to increasing operational efficiency, its ability to process enormous amounts of data, spot trends, and make

---

[38] F.A. PK, *What is Artificial Intelligence?*, in *Success is No Accident. It is Hard Work, Perseverance, Learning, Studying, Sacrifice and Most of All, Love of What You Are Doing or Learning to Do*, 1984, p. 65.

[39] *Ibidem.*

[40] *Ibidem.*

[41] F.A. PK, *What is Artificial Intelligence?*, in *Success is No Accident. It is Hard Work, Perseverance, Learning, Studying, Sacrifice and Most of All, Love of What You Are Doing or Learning to Do*, 1984, p. 65.

judgments at a size and pace that is impossible for humans has paved the way for new developments in service delivery, research, and innovation[42].

Artificial intelligence is now used by social networks, especially Facebook, to "monitor" users' compliance with their standards-that is, the terms and conditions users agree to in order to use the social networking site. According to user-submitted reports, "non-compliant" content is automatically deleted. AI hasn't done well so far, though; frequently, content that blatantly violates someone's reputation or other legally protected rights hasn't been taken down or has only been taken down with a specific court order. Conversely, images or other content that didn't really break the social media site's regulations have been taken down. Furthermore, even though these recordings were the sole documentary proof used to prosecute soldiers for war crimes, YouTube deleted over 100,000 films that showed the horrors of the Syrian civil war, many of which involved the injuring of children. In actuality, a value-balancing decision that was entirely devoid of humanity, as well as common sense and the law, placed the protection of user sensitivity above the necessity of prosecuting war crimes. The Chinese government has also begun a slow process of replacing human censors with machines, using Facebook as an example, in part to cut back on public spending. Furthermore, artificial intelligence could be used to track and manage members of outlawed cults in nations where religious freedom is either restricted or outright forbidden. These people may therefore refrain from congregating and interacting, even in a nonviolent manner, out of concern that they would be recognized and subject to legal repercussions[43]. When one considers that a conventional understanding of freedom of expression does not necessarily necessitate the capacity to share that expression, the matter becomes more complex. Conversely, the use of ICT leads to a shift from a primarily private to a primarily public occurrence, rendering human rights particularly susceptible, as such self-expression is meant to be shared with a wider social community. The first question that must be investigated is whether the human rights regulations in place today are adequate to ensure freedom of expression in

---

[42] *Ibidem.*

[43] R. SAMPERI, *Brevi riflessioni in merito al possibile impatto dell'intelligenza artificiale sui diritti umani*, in «IUS/08 - Diritto Costituzionale», 29 luglio 2021. ISSN 2421-7123.

the face of legal circumstances brought about by emerging technologies[44]. Freedom of expression is defined as a right that "shall include freedom to hold opinions and to receive and impart information and ideas without interference by public authority and regardless of frontiers[45]". This definition is consistent with the European Convention on Human Rights and the Charter of Fundamental Rights of the European Union. The words used make no mention of the practice of freedom of expression through contemporary technical and scientific instruments, even if this definition is intended to be sufficiently broad to be applied to a variety of circumstances. Any appropriate remedy to the issue should therefore be found elsewhere[46]. As a result, it is feasible to say that the existing international framework offers a foundation for future advancements in the field and does not exclude the application of its regulations to emerging technology[47]. Moreover, freedom of expression is defined as the "freedom to seek, receive and impart information and ideas of all kinds, regardless of frontiers, either orally, in writing or in print, in the form of art, or through any other media of his choice[48]" in the framework of the International Covenant on Civil and Political Rights, which is comparable to the Universal Declaration of Human Rights. As one of the primary legal norms for traditional and digital communications pertaining to freedom of expression, the International Covenant on Civil and Political Rights actually has 168 States Parties and is considered essential to the international law of human rights[49]. The second important factor is that in the digital age, people's freedom to seek, receive, and share information and ideas of all kinds appears to be more brittle. Governments can easily jeopardize this freedom by restricting and limiting their citizens' ability to express themselves. The ICT's distinctive

---

[44] J.COCCOLI, *The Challenges of New Technologies in the Implementation of Human Rights: An Analysis of Some Critical Issues in the Digital Era*, in «Peace Human Rights Governance», 1(2), 2017, pp. 223-250.

[45] *Charter of Fundamental Rights of the European Union 2007, art. 11; European Convention on Human Rights 1950, art. 10*

[46] J.COCCOLI, *The Challenges of New Technologies in the Implementation of Human Rights: An Analysis of Some Critical Issues in the Digital Era*, in «Peace Human Rights Governance», 1(2), 2017, pp. 223-250.

[47] *Ibidem.*

[48] *International Covenant on Civil and Political Rights 1966, art. 19*

[49] *Ibidem.*

properties, like its promptness and global reach, are the foundation of its immense potential and benefits, but they have also caused governments to become fearful. The European Union has responded to these dangers by enacting laws that guarantee the preservation of freedom of expression in the digital sphere. In order to protect the principle of intermediary neutrality and avoid the commercialization of censorship, Article 15 of the E-Commerce Directive (2000/31/EC) declares that internet service providers are not generally required to monitor the information they transmit or store[50]. Increased ICT restrictions result, and freedom of expression is often vulnerable to a variety of threats. These include censorship of entire networks or large populations, content filtering and/or blocking, the identification of activists and critics, disconnections from technology, and user information leaks. The criminalization of legitimate expression, followed by the adoption of restrictive laws to support such measures, is the disastrous result of these practices[51]. A theoretical approach to the right in question, views freedom of expression as a means of fostering a democratic culture that extends beyond the mere establishment of a democracy founded on representative institutions. "Democratic culture is not limited to political discourse; it is the culture in which common people express themselves[52]". Everyone can engage in democratic culture, which is "democratic" in that sense. Therefore, the primary means by which people can contribute to the creation of a more democratic and participative culture is through freedom of expression[53]. First and foremost, the right to freedom of speech is interactive since it takes place between communicators who simultaneously serve as speakers and listeners. Since it comes from cultural materials and is predicated on an individual's capacity to deal with cultural elements, either by critiquing them or by producing something new, it is also appropriative[54].

---

[50] EUROPEAN UNION. (2000) *Directive 2000/31/EC of the European Parliament and of the Council of 8 June 2000 on certain legal aspects of information society services, in particular electronic commerce, in the Internal Market (E-Commerce Directive)*. Official Journal of the European Communities, L 178, pp. 1–16.

[51] J.COCCOLI, *The Challenges of New Technologies in the Implementation of Human Rights: An Analysis of Some Critical Issues in the Digital Era*, in «Peace Human Rights Governance», 1(2), 2017, pp. 223-250.

[52] *Ibidem.*

[53] *Ibidem.*

The big technology companies, who have emerged as global agents with the ability to influence state communication processes and interfere in the organization of public debate, political agendas, and even electoral processes, have clearly taken over the context of freedom of speech. This has given some political parties, movements, or candidates more clout than others. Among the new mediators, two aspects are particularly noteworthy: the dialectic of freedom of speech is moving from the state to the international arena and from the public to the private domain. Together, these two factors erode the state's ability to regulate and exert control while bolstering the authority of the new mediators[55]. Since the new mediators are commercial businesses, the conflict over free expression is moving into the private sector. These businesses have taken over a large portion of the public realm by offering services through a monopoly or oligopoly because of the way that communication processes have changed in the digital age. As a result, the concepts of public and private must be reconsidered in light of the exercise of free speech. The conflict between the media and the government authority that could impose restrictions on that freedom no longer reflects the dialectic of freedom of information and opinion. On the contrary, the new mediators have a wide range of decision-making authority over freedom of speech because they have taken over the public communication arena through private channels. It is not possible to evaluate the conflict around free expression in communication processes solely from the standpoint of private law; rather, it is now being established around the new mediators. This is an obvious illustration of how constitutional analysis runs into issues of principle that cannot be settled from a functional standpoint (e.g., through the internal control exercised by the new mediators using private law tools)[56]. Digital platforms have certain features that have proven problematic, not least because they reinforce and feed off one another, in contrast to traditional media, which essentially provided information to the public through a static procedure in which each individual had the ability to choose his or her own information sources. First, because the platforms provide a wide range of services, such as voice or email communication systems, entertainment through audiovisual content, information

[54] *Ibidem.*

[55] STEFFEN HINDELANG, ANDREAS MOBERG, *YSEC Yearbook of Socio-Economic Constitutions 2021*, Springer, 2022.

[56] *Ibidem.*

through search systems, virtual work through connections between users, etc., users can spend a significant amount of their time in this ecosystem, sometimes for both work and leisure. Not only do the platforms provide all of these services, but they also do so without charging the user for them. In exchange, they get information about all of these individuals' online activities, which they use to tailor their services and generate revenue from advertising. One of these services is the distribution of news, which is also personalized. Users will no longer be able to actively choose which news to receive; instead, it will be delivered based on their reading and search histories, just like other services that the platforms offer, which contributes to the so-called bubble effect[57]. Because of the monopolistic conditions under which the new mediators operate and the way they use algorithms to organize and disseminate information and opinions, the ecosystem they have created ultimately results in a kind of plural monism, as paradoxical as the term may seem, where there is an increasing lack of communication between various points of view. It is a pluralism of monist positions that claim to be the only ones that are possible and do not acknowledge the others. Radical split has long existed in various political systems prior to the emergence of social networks and Internet applications; thus this lack of communication is not a fresh problem. Therefore, the new mediators cannot be held solely responsible for this. The new mediators, however, are not only doing nothing to lessen it, but they are making it worse. When it comes to information, a direct and active quest for knowledge can sometimes result in selective processes meant to support one's own opinions. Nonetheless, there is a key distinction between the two processes: while users' active, direct searches involve a conscious attitude, information disseminated by platforms is received passively and is susceptible to pre-shaping by these platforms' algorithms[58].

The platforms, occasionally through advertising strategies or subliminal propaganda, induce and regulate the process of distancing users from social complexity and plurality. Individual contracts still serve as the foundation for the ecosystem in which millions of users live and utilize these platforms and services extensively every day. Nonetheless, the

---

[57] STEFFEN HINDELANG, ANDREAS MOBERG, *YSEC Yearbook of Socio-Economic Constitutions 2021*, Springer, 2022.

[58] *Ibidem.*

technological firms they contract with wield a power that is not entirely private as they control and dominate the public domain. As a result, as some writers have noted, their capabilities are comparable to those of the government and are gradually assuming the characteristics of public power without democratic legitimacy. The technology business, which also has the authority to determine whether to permit these individuals to use its applications, has set the terms of the private contract that governs all of this activity[59]. An internal control body established by the business itself oversees making this decision. It is required to follow the code of conduct that the business has approved and whose members have been freely chosen by the business. Transparency, accountability, and control are all lacking. There is a significant difference between the authority this kind of business gains in the public domain through its applications and the control it faces in terms of potential violations of basic rights or impacts on democratic and electoral processes. These authoritarian circumstances are becoming more pronounced, giving the corporation more authority to the point that its operations are moving from the state to the international arena[60]. Despite being divided into national surroundings, the new mediators function in worldwide settings with hundreds of millions of users who also create global communities. These businesses are comparable to the former colonial businesses in that they may now influence politics and the public sphere in many regions where, in contrast to earlier eras, they are no longer required to be physically present in order to wield power and influence. It is acknowledged that one important issue is competition. The monopoly of the most popular social media, backed by computers and a hierarchical structure through algorithms, fundamentally alters the form of political pluralism and pluralist democracy, which is a challenge brought up by the new context of freedom of speech. Due to the monopolistic influence that social networks and Internet applications have over it, freedom of speech no longer plays a role in creating a plurality of public opinions. The same is true for pluralism: monopolistic conditions cannot support the growth of pluralism, and those lacking a democratic structure cannot support the development of democracy[61]. The economy benefits from free competition in the same

---

[59] *Ibidem.*

[60] STEFFEN HINDELANG, ANDREAS MOBERG, *YSEC Yearbook of Socio-Economic Constitutions 2021*, Springer, 2022.

way that nature benefits from biodiversity and politics benefits from pluralism. Neither democracy nor pluralism are possible without the other. Two fundamental tenets of the democratic system-political pluralism and economic competition-are being impacted by the new intermediaries. They are also undoubtedly influencing the ability to innovate technologically, which makes it challenging to create new settings that can rival the ones that are already in place. Regulators can implement institutional measures to address these issues by making it more difficult for power to continue to concentrate. However, openness-an open technology that eliminates the closed-off, hierarchical nature of applications-is preferred over restriction. For instance, email servers and telephone communication are both open and enable all mobile phone operators to function, enabling worldwide contact. Applications for communication that are currently walled off ought to be open, intercommunicable, and run by several operators [62].

1.3 *Generative AI: A new frontier for creative expression or a threat to free speech?*

Significant advancements in artificial intelligence are being accompanied by a growing ability to "affect", or have an impact on, fundamental human rights. This ability considerably outweighs that of other and distinct types of technology, both current and historical[63]. There is currently no established jurisprudential practice or organic framework for this topic because it is a novel phenomenon that is developing quickly. The guiding acts offered by supranational organizations-mainly the United Nations and the European Union-are crucially important given the dearth of available materials. As of right now, the term "artificial intelligence" has no official definition. AI is "the science of making machines do things that would require intelligence if done by men"[64],

[61] *Ibidem.*

[62] *Ibidem.*

[63] R. SAMPERI, *Brevi riflessioni in merito al possibile impatto dell'intelligenza artificiale sui diritti umani*, in «IUS/08 - Diritto Costituzionale», 29 luglio 2021. ISSN 2421-7123.

[64] *Ibidem.*

according to Marvin Minsky, an AI specialist and co-founder of the Artificial brains Project at the Massachusetts Institute of Technology in Cambridge. AI is "the science and engineering of making intelligent machines"[65], according to computer science specialist John McCarthy. It can be thought of as a collection of "computational technologies that are inspired by-but typically operate quite differently from-the ways people use their nervous systems and bodies to sense, learn, reason, and take action"[66], according to a recent Stanford University study. This is a distinctly novel viewpoint that highlights the current similarities between artificial and human intellect for the first time. AI-enabled technological tools "learn" through a sequence of processes known as "machine learning". Learning happens when mathematical algorithms and vast amounts of data (Big Data) are used together. As time passes, the computer system gathers data and improves the computational process as a result. In actuality, technological gadgets are programmed to carry out extremely precise computational tasks: they begin with an initial assumption (Input Data), then use more complicated algorithms to complete a sequence of mathematical operations before producing an output, or final product[67]. Therefore, it is clear that the more data the "machine" has access to, the better and more sophisticated the learning outcome will be. The gathering and statistical analysis of data, usually supplied by users in return for a particular service, is a significant portion of machine learning activities. As of right now, "deep learning" is the type of machine learning technology that most closely resembles human learning. It enables the computer to correlate various facts with one another by using a network of infrastructures called "neural networks", which are designed after the human neural system. Even medical equipment that can diagnose certain diseases on its own, facial recognition software (used, for instance, by some nations to apprehend dangerous terrorists), and cars that can park themselves without "human" commands have all been made possible by this seemingly simple mechanism[68].

---

[65] *Ibidem.*

[66] *Ibidem.*

[67] *Ibidem.*

[68] R. SAMPERI, *Brevi riflessioni in merito al possibile impatto dell'intelligenza artificiale sui diritti umani*, in «IUS/08 - Diritto Costituzionale», 29 luglio 2021. ISSN 2421-7123.

“Innovation is taking two things that exist and putting them together in a new way”, according to Tom Freston. It has long been believed that only humans are capable of performing artistic, creative jobs like writing poetry, developing software, designing clothing, and making songs. Recent developments in artificial intelligence, which can now create new material in ways that are indistinguishable from human skill, have fundamentally altered this presumption[69].

The field of human labor could undergo a substantial transformation due to the potential of artificial intelligence. The recent rise of so-called “Generative AI”, which the proposed AI Act defines as “foundation models used in AI systems specifically intended to generate, with varying levels of autonomy, content such as complex text, images, audio, or video”, is particularly noteworthy in light of AI’s increasing competence in the creative domain. It has proven to be able to write news stories, poetry, and novels; compose music; edit photos; create video games; and create paintings and other visual arts. Numerous legal issues have surfaced as AI continues to advance in creative fields, especially in the area of intellectual property rights[70]. Generative AI describes computational methods that can produce seemingly original, significant material. With examples like Dall-E 2, GPT-4, and Copilot, this technology is already spreading widely and completely changing how we collaborate and interact with one another. Not only may generative AI systems be utilized artistically to produce new visuals that resemble artists or new language that mimics writers, but they can and will support humans by acting as intelligent question-answering systems. Information technology (IT) help desks are among the applications where generative AI is used to assist with transitional knowledge work tasks and routine requirements like food recipes and medical advice. Numerous industries are affected by this revolutionary influence, including the creative arts, which challenges conventional notions of authorship and originality, and healthcare, where AI aids with complicated diagnosis. Legal experts like Lim (2018), who examines the changing landscape of

---

[69] G. FROSIO, *Should We Ban Generative AI, Incentivise it or Make it a Medium for Inclusive Creativity?*, in E. Bonadio, C. Sganga (a cura di), *A Research Agenda for EU Copyright Law*, Edward Elgar, Cheltenham, 2025 (forthcoming), disponibile online al link: https://ssrn.com/abstract=4527461 [ultimo accesso 5 febbraio 2025].

[70] *Ibidem.*

intellectual property law in the era of artificial intelligence, have thoroughly examined the phenomena of current statutes in the legal sector adapting to these new concerns[71]. Therefore, fields and industries that depend on creativity, invention, and knowledge processing could be revolutionized by generative AI. Digital art, individualized education and service, and lifelike virtual assistants are just a few of the many uses it makes available that were before unfeasible or prohibitive for automation [72].

Reactions to the advent of generative machine learning systems vary amongst creators. They fear the need for their work will decline as a result of businesses using their creative work to create generative machine learning applications. There are worries that the value created by these tools will go entirely to big tech firms, with no portion going to the creators and artists whose work is utilized to train these models. Others wish to control who can use their work and how, or they are worried about their distinctive artistic styles becoming commercialized. They can use their option to opt out as leverage to establish terms and demand compensation, which is an intriguing viewpoint that the EU's approach to TDM/ML offers them all. If individual producers utilize this lever alone, it is unlikely to function very well given the magnitude of ML training, which for basic models is at the scale of the Internet. Rather, it appears that artists will have to unite in order to jointly defend their rights against those who want to use their creations as training data for machine learning [73]. Concern and interest have been aroused by the idea of generative AI in the field of artificial intelligence. At the nexus of copyright and AI-generated works, where conventional legal frameworks are unable to keep up with technical improvements, the essence of the problem is found. Finding the authorship and ownership of works created by AI is one of the main problems. The authorship of AI-generated works is blurred, posing problems regarding who should be given credit and who owns the rights to these creations, in contrast to traditional creative works where human authors are

[71] X.WANG, Y.C. WU, *Balancing Innovation and Regulation in the Age of Generative Artificial Intelligence*, in «Journal of Information Policy», 14, 2024.

[72] S.FEUERRIEGEL, J. HARTMANN, C. JANIESCH, P. ZSCHECH, *Generative AI*, in «Business & Information Systems Engineering», 66(1), 2024, pp. 111-126.

[73] P. KELLER, *Protecting Creatives or Impeding Progress? Machine Learning and the EU Copyright Framework*, in «Kluwer Copyright Blog», 20 febbraio 2023, disponibile online al link: https://copyrightblog.kluweriplaw.com/2023/02/20/protecting-creatives-or-impeding-progress-machine-learning-and-the-eu-copyright-framework [ultimo accesso 5 febbraio 2025].

clearly recognized [74]. The flow of data, which the machine processes directly and turns into valuable information, is essential to the development of artificial intelligence. At the heart of AI's liberation towards autonomy is the transition from conventional algorithmic technology to neural network-based machine learning technology, or the move from faithfully carrying out the programmer's instructions to the machine's capacity for autonomous learning. The machine may now learn from experience and even come up with new solutions instead of relying on algorithms to provide it with precise, unambiguous, and limited instructions.

Like human cognitive processes, the computer is given a set of real data to learn from, which is subsequently processed and applied to novel scenarios. Deep learning and the layered network of artificial neurons-algorithms inspired by the neural structure supported by big data-have made it possible for complex models to decode enormous amounts of data to accomplish progressively challenging tasks. Artificial neural networks enable the machine to learn and recognize relationships between data. Using machine learning approaches, "generative" AI creates language models that can comprehend and produce new information in a contextualized and logical way in response to user requests[75]. Except for the original input, it functions autonomously and can produce outcomes that humans cannot predict or control. Artificial intelligence systems that produce innovative things on their own are usually protected by standard patent procedures, with the users being erroneously identified as the creators. Once the distinction between creativity and its word is broken, originality is linked to the ability to innovate, which is lacking in replicating, reproducing, or mimicking pre-existing models but present in an odd, unanticipated product. Since every work is the consequence of manipulating pre-existing materials and combining them in a unique way, intellectual property law itself evaluates the uniqueness of the final product more so than the creative process. In this sense, when the outcomes of the algorithmic process are unexpected, computer-generated innovation-which is usually not limited to a strictly algorithmic

[74] F. MAZZI, *Authorship in Artificial Intelligence-Generated Works: Exploring Originality in Text Prompts and Artificial Intelligence Outputs through Philosophical Foundations of Copyright and Collage Protection*, in «The Journal of World Intellectual Property», 27(3), 2024, pp. 410-427.

[75] G. PIGNATARO, *La produzione intellettuale dell'IA generativa tra etica e diritto*, in «Diritto Pubblico Europeo - Rassegna online», 22(2), 2024.

approach-seems indisputable. The difficulty of identifying the author's personality in the work or their freedom of choice are now the main issues surrounding authorial protection[76]. Given the disruptive nature of generative AI, the existing legal frameworks governing this technology need to be critically examined. Governance practices in the US, a pioneer in AI innovation, are changing to keep up with the quick speed of technical advancement[77]. These days, exaggerated assertions of AI's significance and strength are common; one EU agency even compared it to the "fifth element after air, earth, water, and fire". Even while artificial intelligence is not new, its capabilities have drastically increased recently, increasing its potential to significantly alter society. Regulators and legislators generally considered the technology to be completely advantageous or at the very least benign for many years. However, when public concern over AI's possible negative effects increased, the so-called "Tech Lash" in 2015 signaled a shift in tone[78]. These worries were sparked in large part by the Cambridge Analytica incident, which involved the purported manipulation of voters through political microtargeting and had serious ramifications for democracy. From that point on, policy measures both inside and outside the EU started to take on a "harder" form, avoiding the use of non-binding "ethics codes" as a means of industry self-regulation and leading to the EU's "legal turn", which was symbolized by the passing of the AI Act. The Commission released a White Paper on AI in February 2020, outlining a framework for new laws to regulate AI "based on European values" and pointing out several legal loopholes that needed to be filled. Even though it aimed to govern AI using a risk-based approach, it only distinguished between two types of AI systems: high-risk and not-high-risk. Only the former were subject to new regulations based on the seven criteria for Trustworthy AI in the Guidelines[79]. The AI High-level expert group on artificial intelligence's advice to uphold democracy, the rule of law, and fundamental rights was mostly disregarded, and its recommendation to take preventative measures regarding "unacceptable harm" was completely disregarded. The

---

[76] *Ibidem.*

[77] X.WANG, Y.C. WU, *Balancing Innovation and Regulation in the Age of Generative Artificial Intelligence*, in «Journal of Information Policy», 14, 2024.

[78] N.A. SMUHA (a cura di), *The Cambridge Handbook of the Law, Ethics and Policy of Artificial Intelligence*, Cambridge University Press, Cambridge, 2025.

[79] *Ibidem.*

White Paper remained ambiguous on enforcement. However, it did recommend that, similar to current EU conformity assessment processes for items covered by the New Legislative Framework, high-risk systems should be the subject of a previous conformance review by AI system suppliers. This strategy, in spite of strong opposition, served as the basis for the Commission's later AI Act proposal, which was released in April 2021[80]. It expanded on the White Paper by taking a "horizontal "approach, regulating "AI systems" generally as opposed to focusing on a particular industry. Though there were still complaints since several really problematic applications were left off of the list of "high-risk" and "unacceptable" systems, along with unjustified exceptions, the risk classification of AI systems was improved to include unacceptable risk, high risk, medium risk, and low risk. Retaining the conformance (self)assessment scheme solidified a product-safety approach to AI regulation, but it did not grant any rights to those exposed to AI systems; instead, it only imposed obligations on AI suppliers and, to a lesser extent, deployers. The European Council adopted its "general approach" to the Commission's proposal in December 2022. It proposed that AI systems classified as "high-risk" systems would not be automatically subject to the Act's requirements, aimed to strengthen EU coordination for the Act's enforcement, and limited the regulation's scope by introducing more exceptions (such as for national security and research) and narrowing the definition of AI. The proposal's already meager protection may be further diminished if providers were to determine for themselves whether their system is actually high-risk based on a variety of factors[81]. Lastly, the Council incorporated slight provisions on General-Purpose AI models (GPAI) in consideration of the growing popularity of Large Language Models (LLMs) and generative AI applications like ChatGPT, which at the time were receiving a lot of public and political attention. In June 2023, generative AI was booming and demanding more stringent regulations when the European Parliament developed its own negotiating stance. Thus, risk evaluations and transparency criteria were added to the GPAI models that support generative AI. Unlike the Council, the Parliament aimed to include stakeholder participation, strengthen transparency measures, restore a broader

[80] *Ibidem.*

[81] N.A. SMUHA (a cura di), *The Cambridge Handbook of the Law, Ethics and Policy of Artificial Intelligence*, Cambridge University Press, Cambridge, 2025.

definition of AI, expand some of the risk categories, provide remedies for individuals exposed to AI systems, and require fundamental rights impact assessments for high-risk systems. However, it kept the Council's suggestion to let AI companies determine for themselves if their "high-risk" system qualifies for exclusion from that category and, consequently, from the applicable legal obligations. Additionally, it infused the Act with allusions to the "rule of law" and "democracy", but these were merely rhetorical devices because the Act nonetheless adhered to the market-oriented, product-safety framework of the original proposal[82]. A number of activities that highlighted important policy decisions that shaped the AI Act's form, substance, and features culminated in its approval in the spring of 2024.

1.4 *Legal and Ethical frontiers: Charting the boundaries*

While the definition and scope of artificial intelligence (AI) are constantly evolving due to technological advancements, the benchmark of human intellect remains relatively stable. We are getting closer to a new level of improvement with generative AI. Its capabilities were previously primarily thought to be analytical and appropriate for activities involving decision-making. AI can now carry out generative tasks, which makes it appropriate for content production. Although the process of creating material is still somewhat analytical due to its probabilistic nature, generative AI can produce creative or even artistic outcomes by fusing pieces in new ways [83]. Furthermore, because humans used IT artifacts directly, they were regarded as passive. This human agency primacy assumption needs to be reexamined in light of the emergence of agentic IT objects driven by LLMs. It affects how we develop the relationship between humans and AI depending

[82] *Ibidem.*

[83] S.FEUERRIEGEL, J. HARTMANN, C. JANIESCH, P. ZSCHECH, *Generative AI*, in «Business & Information Systems Engineering», 66(1), 2024, pp. 111-126.

on their relative strengths. With an emphasis on human-AI interaction, the idea of delegation has been explored thus far in analytical AI in order to create a decision-making hierarchy. In generative AI, a person interacts with an AI system to produce content via prompts; the AI then deciphers the user's intent and responds with feedback that assumes more prompts. At first inspection, this appears to be a delegation pattern as well. However, the process that follows doesn't because the AI's output may be suggestive to the other party and may either directly or indirectly inform their continued involvement. As a result, the process of creation instead adheres to a co-creation pattern, which is the practice of working together in various positions to align and provide a variety of perspectives to direct a creative process. From the perspective of agentic AI artifacts, initiation is not just a human phenomenon. The aforementioned interactions also have an impact on how we now conceptualize hybrid intelligence, which is the fusion of AI and humans while utilizing their respective advantages. By fusing the computing power, precision, and scalability of AI systems with human intuition, creativity, and empathy, hybrid intelligence seeks to overcome the shortcomings of each intelligence type and produce improved decision-making and problem-solving abilities[84].To create a new ecosystem where freedom of expression and information can continue to be a vehicle for the development of horizons of meaning that are fundamentally human, we must carefully consider how we use AI technologies, as well as the imprint and direction we set for their self-learning and processing capabilities[85]. Theoretically, this change in how people engage with computers—or more specifically, with artificial intelligence-fuels another significant finding: The theory of mind is a well-established theoretical framework in psychology that characterizes people's cognitive capacity to comprehend and forecast the intentions, feelings, and mental states of others. Because it promotes empathy and enables clear communication, this ability is essential for social relationships. Furthermore, giving an AI system a mind can significantly increase usage intensity. Humans have an unconscious theory of mind that develops throughout the course of a person's lifetime. The need for a theory of mind for human-computer interactions increases with the naturalness of AI systems' output and interface. How AI systems can develop theory-

[84] *Ibidem.*

[85] C.M. REALE, M. TOMASI, *Libertà d'espressione, nuovi media e intelligenza artificiale: la ricerca di un nuovo equilibrio nell'ecosistema costituzionale*, in «DPCE online», 51(1), 2022, pp. 325-336.

of-mind awareness to comprehend humans better is already being studied. But the AI systems of today seldom provide any cues for engagement. As a result, humans lack a theory to explain how they interpret intelligent behavior from AI systems. This is particularly problematic in a collaborative setting that does not adhere to a task delegation pattern. Some of these worries might be allayed by an artificial intelligence theory that clarifies how people understand and presume the states and logic of AI systems in order to work with them more effectively[86]. Is AI a subject like us? [87]The general public has started to pay considerable attention to this subject in recent years and months, and it has deep philosophical roots. Human society and humanity will confront enormous theoretical and practical (ethical) issues if artificially intelligent subjects like us are theoretically or technically achievable. How should we view and assess both our own life and the state of AI today? Or should we even think about our responsibilities to AI? The rationalistic tradition of modern philosophy, which predates Hegel, is largely responsible for the propensity to categorically reject the formal feasibility of artificial subjects like humans. Rationalism positions humans just below the divine, allowing no other species to transcend human dignity by placing them far above animals and the mechanical natural world. These days, it is difficult to think of AI technologies as only means for exercising the right to free speech and information because of their dual roles as tools for content creation and as systems for content selection, moderation, and ordering. Instead, since they actively affect content, meanings, connections, and priority structures, they should be viewed as vectors of possible structural changes in the paradigms of information and communication. These changes will be both quantitative and, more significantly, qualitative. Artificial intelligence has the potential to support both the right to information by increasing sources, choosing pertinent content, and giving priority to accurate information, and the right to communication by broadening platforms and their reach and democratizing the processes involved in content creation. The same mechanisms, however, can also result in an overabundance of information (fragmented or contradictory), the dominance of a single, consistent narrative, the dissemination of

[86] *Ibidem supra note 28.*

[87]E. PLEVRAKIS, *Can AI be a Subject Like Us? A Hegelian Speculative-Philosophical Approach*, in «Discover Computing», 27(1), 2024.

hostile and discriminatory content, unwarranted or incorrect censorship, manipulations, or distortions of public and even scientific discourse. Today's most urgent problem appears to be people giving in to automation and technological reasoning when exercising a right that has always been central to democracy, rather than a computer trying to mimic human expression. More generally, there is a chance that the communication and information landscape will become automated, standardized, or divided into a number of incompatible silos, depriving it of the vitality and transformative power required for information and freedom of expression to continue to be a catalyst for both individual and societal development[88].

There are several ethical issues with artificial intelligence. These are made worse by our inability to control and anticipate the results of AI systems, which are used to conduct actions and assist in decision-making. Thus, AI presents well-known issues in a novel context, including prejudice, privacy, autonomy, accountability, and more[89]. One major ethical issue with generative AI models is their lack of explainability and transparency, which is sometimes referred to as the "black box" dilemma. Without the right authorization or protections, using personal data to train AI models can result in privacy violations and sensitive data exploitation. Furthermore, the creation of phony content, like deepfakes, presents moral questions due to the possibility of deceit and manipulation. The data that generative AI uses as input is closely related to the content that it produces. The relationship between input data and output content raises a variety of value judgments that can differ greatly, creating new ethical, legal, and regulatory issues for the creation and application of this technology. Among these difficulties, data security stands out as a major worry. This includes problems like unlawful data collection, algorithmic misuse, the inability to discern between authentic and fraudulent information, the spread of false or misleading content, inadequate privacy protection, and possible copyright violations[90].

---

[88] C.M. REALE, M. TOMASI, *Libertà d'espressione, nuovi media e intelligenza artificiale: la ricerca di un nuovo equilibrio nell'ecosistema costituzionale*, in «DPCE online», 51(1), 2022, pp. 325-336.

[89] N.A. SMUHA (a cura di), *The Cambridge Handbook of the Law, Ethics and Policy of Artificial Intelligence*, Cambridge University Press, Cambridge, 2025.

[90] X.WANG, Y.C. WU, *Balancing Innovation and Regulation in the Age of Generative Artificial Intelligence*, in «Journal of Information Policy», 14, 2024.

Because machine learning is a technical field, the opacity of algorithms is a significant challenge. The rules that algorithms generate get harder for humans to see and understand technically as they self-learn. From an outside viewpoint, developers frequently hide the algorithm's decision-making guidelines, which leaves the people involved in the process in the dark. It is difficult for people to comprehend the reasoning and procedure behind algorithmic judgments because of this lack of transparency. Many nations are actively encouraging the transparency and openness of corporate algorithms in order to mitigate the detrimental effects of algorithmic opacity. This entails mandating that algorithm service providers provide and elucidate the underlying assumptions, reasoning, and decision-making procedures of their algorithms. Decision-makers are also entitled to request justifications for the algorithms being employed. The possibility of algorithmic bias, which is closely related to data bias, is a significant worry in the field of generative AI. Algorithmic bias is defined in computer science as systematic, repetitive mistakes in a computer system that lead to unfair results, including giving preference to one arbitrary user group over another. In the event that generative AI models are trained on skewed or biased data, the algorithm may unintentionally learn and reinforce these prejudices. The influence of this bias is further contextualized by social studies insights. According to this field's research, algorithmic prejudice has the potential to perpetuate social injustices. Furthermore, these problems may be made worse by the intrinsic qualities of generative AI, particularly its ability to learn and adapt. Repeatedly using biased algorithms can magnify discriminating trends and reproduce them, leading to progressively skewed material. This bias propagation poses ethical questions regarding equity and fairness in AI-driven decision-making, making it more than merely a technological defect [91]. Practical issues arise when copyright protection is justified by requiring a certain amount of human intervention. The amount of human engagement in the creative process of AI-generated material can vary greatly, from little to a great deal of direction and improvement. Judges and legal professionals face a difficult task when seeking to measure and qualify the degree of human intervention necessary to justify copyright protection.

[91] *Ibidem.*

"Probatio diabolica "[92]accurately describes the impractical challenge of determining the level of human participation to AI-generated works in retrospect. It becomes quite challenging to discern between situations with little human effort and those with more significant authorial contribution when the final product is extremely imaginative and unique, like an artwork. Judges would have to detect the subtleties of the creative process, frequently without explicit rules or precedents to help them make decisions. Furthermore, evaluating human involvement in AI-generated works is made more difficult by the time-consuming nature of creative endeavors. On the surface, some compositions might seem to require little work, yet they may be the result of weeks or even months of careful preparation and trial and error in the backstage area. On the other hand, sophisticated AI algorithms can produce works that seem to have been the result of a great deal of human labor with very little input. A major obstacle to legal certainty is the inherent ambiguity regarding the degree of human intervention in AI-generated works. Judges are forced to rely on their own subjective judgments and contextual factors when authorship and originality are not clearly defined, which adds an element of uncertainty to copyright disputes. The stability and predictability of the judicial system could be jeopardized as a result of conflicting decisions and varying interpretations of copyright law[93]. A sophisticated strategy that strikes a balance between the necessity to preserve artistic expression and the reality of technical advancement is needed to address this issue. While maintaining the values of justice, equity, and legal certainty, legal frameworks must change to account for the special features of AI-generated content. In order to promote consistency and coherence in judicial decision-making, this may entail creating rules or principles that offer clarity on authorship attribution and the determination of originality in AI-assisted creativity[94]. Another important concern is copyright violations, which can happen when generative AI models generate outputs that mimic or even replicate previously published works without the original author's consent or payment. Two possible infringement concerns are prevalent here. On the one side, generative AI

[92] F. MAZZI, *Authorship in Artificial Intelligence-Generated Works: Exploring Originality in Text Prompts and Artificial Intelligence Outputs through Philosophical Foundations of Copyright and Collage Protection*, in «The Journal of World Intellectual Property», 27(3), 2024, pp. 410-427.

[93] *Ibidem.*

[94] *Ibidem.*

might illegally reproduce a work, infringing on the artists 'right to reproduction. This could occur, among other situations, when a generative AI is educated on copyright-protected original content and then generates duplicates of that content. As a result, it is commonly assumed that training data for generative AI systems must be free of copyright. Importantly, copyright violations can still occur even in cases when the generative AI has never seen a copyrighted work before. For instance, it might just generate an Adidas-like trademark logo without ever seeing the original. However, generative AI might produce derivative works, which would go against creators' rights to transformation. As a result, the balance between creativity and originality in generative AI systems raises legal concerns. Accordingly, the ownership of intellectual property for works (including patents) created by generative AI also gives rise to legal concerns[95]. Negative effects could result from protecting algorithmic creativity without giving enough thought to how it affects copyright transaction costs. The rapid expansion of AI's creative capabilities and the possible rise in copyright trolling could lead to a shortage of creative resources and impede progress. Striking a careful balance between defending creators' rights, encouraging innovation, and preventing systemic failures brought on by an overbearing web of rights is essential as we negotiate the legal environment surrounding AI-generated works. Given the possible disruption to the creative market, legal incentives for AI-generated innovation should be handled carefully. Concerns over job displacement and the possibility of more inequality are raised by this disruption, which is consistent with a historical pattern in which a privileged few have benefited from technical developments[96].

[95] S.FEUERRIEGEL, J. HARTMANN, C. JANIESCH, P. ZSCHECH, *Generative AI*, in «Business & Information Systems Engineering», 66(1), 2024, pp. 111-126.

[96] G. FROSIO, *Should We Ban Generative AI, Incentivise it or Make it a Medium for Inclusive Creativity?*, in E. Bonadio, C. Sganga (a cura di), *A Research Agenda for EU Copyright Law*, Edward Elgar, Cheltenham, 2025 (forthcoming), disponibile online al link: https://ssrn.com/abstract=4527461 [ultimo accesso 5 febbraio 2025].

1.5 *Empowering or Restricting Voices: How Generative AI challenges traditional norms of expression*

Generative AI has the potential and the power to embrace freedom of expression in a totally fresh and new way, accelerating the already rapid expansion of the internet's ability to disseminate and access knowledge and concepts. Algorithms can now produce content that sounds realistic and human for the first time in history[97]. These advancements have incredibly significant ramifications, signaling a change in the creative industry toward accessibility and equality. Generative AI tools promote more participation in adding to the human-artistic canon by questioning conventional ideas of creativity and introducing the art world to previously unheard voices and perspectives. Individual works of art are altered by generative AI, which also changes the larger cultural discourses about creativity and the arts [98]. Instead of being "self-made", authors are "constituted by networks of nested relationships"-relationships between their "selves" and "others"-that impact their creative endeavors and help them reach their full potential. Even while "others" are typically thought of as "authors of the past", the introduction of algorithms into the creative process both changes and expands the extent of these relationships, thereby altering the characteristics of the "community" that produces works of authorship. Although generative AI is not new in the traditional sense, its introduction into the creative process serves to reinterpret the nature of this relationship by separating the act of creation from the process of knowledge acquisition, with the latter no longer needing to be coerced into completing the former. In this way, they can influence, if at all, the way writers who use algorithms in their work seek knowledge[99]. Some authors utilize these technologies to interact with existing culture in new ways, while others use them to completely avoid this process. In this way, innovative algorithms tend to change our

---

[97] WILL JACKSON, *Generative AI as a Democratizing Force in Fine Arts: Navigating the New Landscape of Creation and Consumption*, Tesi di Dottorato, 2024.

[98] *Ibidem.*

[99] S.K. MIZRAHI, *Following Generative AI Down the Rabbit Hole: Redefining Copyright's Boundaries in the Age of Human-Machine Collaborations*, Tesi di Dottorato, Université d'Ottawa/University of Ottawa, 2024.

definition of knowledge "to alter the structure of our interests: the things we think about[100]," and to [101] "alter the character of our symbols: the things we think with".

Previously eager to absorb knowledge from their forebears, authors may now be more likely to question the value of work produced by machines. In order to accomplish this, authors who previously used the conventional building blocks of knowledge to create their own works may now rely on algorithmic output. In this regard, innovative algorithms may promote a society where creativity is not reliant on familiarity with existing culture. Investigating whether the application of generative algorithms in the creative domain is more likely to support or impede the search for information essential to copyright's mission is therefore imperative[102]. Although developers are technically authors in their own right, it's important to understand that creative algorithms give authors of music, art, and literature a chance to interact directly with code-and not just passively consume it-and its developers in ways that weren't possible before. However, while expanding the range of relationships available to writers, algorithms may also make it harder for writers to relate to the "others" whose writings they are training. Since creativity is the means by which writers interact authentically with "others", it is important to consider how algorithms' ability to simultaneously create new relationships and break off others may make it more difficult for writers to accomplish this[103]. These technologies have become very popular in the tech industry in recent years. Using lofty claims like "make your dreams come true" or "imagine limitless creativity at your fingertips", the media and top creators of these technologies have been promoting their creative potential and seeming ability to enhance human creativity. Generative AI systems promise personalization and an increase in human creativity through this marketing. Anything you can think of can be created; all you need to do is enter a prompt[104]. Although there are many opportunities

---

[100] NEIL POSTMAN, *Technopoly: The Surrender of Culture to Technology* (New York: Alfred A Knopf, 1993) at 4-5 [Postman, Technopoly].

[101] *Ibidem.*

[102] *Ibidem supra note 41.*

[103] S.K. MIZRAHI, *Following Generative AI Down the Rabbit Hole: Redefining Copyright's Boundaries in the Age of Human-Machine Collaborations*, Tesi di Dottorato, Université d'Ottawa/University of Ottawa, 2024.

[104] K. CHADHA, *Imagine Yourself: Explorations in Fostering Personal Expression With Generative AI*, Tesi di Master, Massachusetts Institute of Technology, 2024.

for using AI as a tool to boost creativity, this approach was initially motivated by the belief that seeking information that creators do not possess is pointless and will prevent them from reaching their goals. Michael Hobe, a co-founder of Amper, asserts that we should consider generative algorithms "more as intelligence augmentation" because they were developed to efficiently circumvent our knowledge gap. a method to streamline our creative process by eliminating many of its absurd components. According to him, it's about enabling more people to express their creativity and enabling those who already possess some of these creative qualities to truly develop[105]. The way that art is conceived and produced may change as a result of AI technologies working with artists. However, they require shrewd prodding before they can offer us completely original artwork. With the help of this unique hybrid creative process, artists can push the envelope and explore hitherto uncharted creative horizons. AI-human collaboration projects are creating original artworks that combine computer innovation and human ingenuity. You can now express yourself in a way that you couldn't with a paintbrush, sculpture, or installation. With only one's words and internet access limiting access to artistic expression, I see this evolution as democratizing the art world[106]. They can get this service in two different formats. The first is via using their own browsers, which allow them to conveniently access AI applications online. The second is through interfaces for downloading programs, which are accessed via the desktop of the computer but are typically operated by virtual machines because a single computer would not have the computing ability to do so. It has never been so easy to use AI to help with creative work production[107]. Due to the democratization of art [108]made possible by the advent of commercially available tools such as DALL-E and Midjourney, artists now have more opportunities to experiment with these technologies and create meaningful artwork. Since the obstacles to entry into the art world have almost vanished, a greater number of people can now express their creativity thanks to the mass-market accessibility of these platforms. People without

---

[105] NEIL POSTMAN, *Technopoly: The Surrender of Culture to Technology* (New York: Alfred A Knopf, 1993) at 4-5 [Postman, Technopoly].

[106] WILL JACKSON, *Generative AI as a Democratizing Force in Fine Arts: Navigating the New Landscape of Creation and Consumption*, Tesi di Dottorato, 2024.

[107] *Ibidem supra note 47.*

[108] *Ibidem supra note 48.*

formal training may now create works that appeal to both traditional and niche art audiences thanks to generative AI technologies, which blur the lines between fine art and technology. This demonstrates how technology has helped to broaden the scope of art production and the conversation about what it means to be an artist in the modern era. The catharsis of creative expression that comes from creating art is so hampered by so many imagined and actual obstacles that it is really calming and relaxing to have a tool that can transform abstract concepts into tangible form[109]. These kinds of computational technologies make it obvious that the human artist is the source of all creativity and expressive content. The algorithm's sole function is analogous to the manipulation of a paintbrush, pen, or typewriter by human will[110]. It uses patterns it has discovered in datasets to create content. Their work is improved by this technology, which opens up new avenues for creativity and expression[111]. Moreover, AI's ability to automate monotonous activities frees up human creators to concentrate on more complex conceptual work and experiment with new creative mediums[112]. It expands the creative boundaries of writers in ways that were previously unthinkable and highly inspired. Authors are encouraged by algorithms to explore imaginative possibilities that they might not have otherwise thought of. They introduce authors to novel concepts, pictures, and scenes, bringing to light subtleties and ideas gleaned from their training data that are rarely perceptible to authors' human senses. Additionally, their computational "vision" can occasionally even assist writers in escaping the limitations of their own creative spheres, enabling their work to blossom in ways that are frequently genuinely powerful. Innovative algorithms have the power to inspire writers' creativity, expand their chances for originality, and ultimately enhance our social discourse[113]. It must first be acknowledged that historically, there have been obstacles preventing people from taking part in the process of creating art, before we can expect generative AI to democratize the

---

[109] *Ibidem.*

[110] *Ibidem supra note 49.*

[111] K. GOWRILAKSSMI, D.H. PRASAD, S. SHYLAJA, *The Role of Generative AI in Artistic Expression*, in «Advances in Future Trends and Technology», 146.

[112] R. BANGUN, S. FIKRI, *The Role of Generative AI in Shaping Human Rights and Gender Equity: A Critical Analysis*, in «Journal of Indonesian Legal Studies», 9(2), 2024.

[113] NEIL POSTMAN, *Technopoly: The Surrender of Culture to Technology* (New York: Alfred A Knopf, 1993) at 4-5 [Postman, Technopoly].

art-making process. Cost and socioeconomic considerations are the most crucial [114]. According to a 2020 poll of more than 6,800 UK individuals, "people with lower SES reported more barriers in terms of opportunities to engage". "Time factors, cost, and nonavailability are most often named as barriers" to creative engagement, according to a different research conducted by the National Endowment for the Arts (NEA). Each of these three has to do with position and socioeconomic standing. Despite its value and therapeutic benefits, art is frequently dismissed as a recreational activity[115].

People who barely have time for their necessary activities are therefore unlikely to find time for art, particularly if they are not beginning from a strong position of artistic ability. [116]In addition to the time commitment required to make an artwork, mastering a particular medium requires many hours of focused practice. For many, cost is another deterrent. At the community/arts-and-crafts level, art is a welcome atmosphere, but many people are unwilling to contribute the higher financial costs necessary to get recognition in the traditional art community. By reducing the need for financial resources to create art, the proliferation of generative AI tools has lowered barriers to art creation and consumption, according to Ziv Epstein, a postdoctoral scholar at the Stanford Institute for Human-Centered AI, and colleagues. Additionally, he contends that developments in generative AI have expanded access to the art world, improving inclusion and broadening the range of artistic expression. Encapsulating the excitement of many in this new frontier, media artist Refik Anadol told an MIT audience, "I believe by using AI, whether generative or otherwise, we have the opportunity to find the language of humanity". The art world has become more diversified and accessible by dismantling the conventional boundaries to art production and consumption. Generative AI is bringing fresh voices and viewpoints to the art-making process by empowering those without a lot of artistic skill. Additionally, generative AI will create a prosumer culture in the art industry where art is ingrained in our everyday life by reducing the creation-consumption loop[117].

---

[114] WILL JACKSON, *Generative AI as a Democratizing Force in Fine Arts: Navigating the New Landscape of Creation and Consumption*, Tesi di Dottorato, 2024.

[115] *Ibidem.*

[116] *Ibidem.*

The majority of artists take their hands, which are in fine working order and allow them to create, for granted. Graffiti artist TEMPTONE[118], however, is no longer able to create art with his hands because he was diagnosed with ALS in 2003 and is now totally paralyzed. Working with a number of people from different research institutes, TEMPTONE is now able to use his eyes to follow his passion for graffiti once more. [119]In essence, they developed a pair of glasses that are linked to an algorithm that converts the eye movements of TEMPTONE into real images. This technique is the epitome of an algorithmic tool. It doesn't try to forecast TEMPTONE's next moves and doesn't provide any content recommendations. All it does is follow his eye movements, which allows him to create a tangible work of art based on his own creative impulses, much like a pen follows our hand movements[120]. An aphantasia sufferer[121] is described in "An Autoethnographic Case Study of Generative Artificial Intelligence's Utility for Accessibility" as having discovered a way to see situations using DALL-E and MidJourney. Separately, three blind researchers-Brandon Biggs, Lindsay Yazzolino, and Joshua Miele-collaborated with artist Cosmo Wenman to produce visuals utilizing Midjourney. With the help of multimodal communication tools like ChatGPT, they were all able to iterate through artworks using their words. Another example is a Reddit post by user NervousJazz, which provides a first-person narrative of how Generative AI allows individuals with impairments to express themselves creatively in novel ways. She began by stating, "I will not go into detail about my various disabilities, but let's just say that they prevent me from creating traditional art". "I might finally be able to take the ideas in my head and share them with the world" is the user's emotional reaction upon learning about AI art tools, demonstrating the technology's profoundly personal impact[122]. By enhancing writing performance, enabling personalized learning experiences, expanding

---

[117] *Ibidem.*

[118] VIKTOR BEZIC, "*Algorithmic Beauty: 10 Artists Pushing the Boundaries of Code*" *Medium* (28 July 2018), online: <https://medium.com/feed-fatigue/algorithmic-beauty-10-artists-pushing-the-boundaries-of-code-2d55b58aedea>.

[119] *Ibidem.*

[120] *Ibidem.*

[121] *Ibidem.*

[122] *Ibidem.*

research capabilities, enlarging accessible learning opportunities, and streamlining scheduling, grading, and enrollment procedures, generative AI holds promise for generating substantial opportunities in higher education in developing nations[123]. Enhancing students' learning experiences through its capacity to produce incredibly creative output in response to human cues is one of the main applications of GenAI in higher education. While text-to-image AI generators like DALL-E [124]and Stable Diffusion can be useful tools for teaching technical and artistic concepts in arts and design, text-to-text AI generators can help students, especially those who are not native English speakers, with their writing by allowing them to brainstorm ideas and receive feedback on their work through apps like ChatGPT. In order to help researchers analyze data and write more efficiently, GenAI technologies are also thought to be helpful research aids for idea generation, information synthesis, and summarization of large amounts of text data[125]. According to studies on the application of AI in language classrooms, students found chatbots and plot generators to be helpful in improving their language learning by helping them with grammar, assisting them in coming up with ideas, and facilitating communication in the target language. The use of AI-based chatbots for learning support enhanced students' learning achievement, self-efficacy, learning attitude, and learning motivation. AI KAKU, a GenAI tool based on the GPT-2 language model, was used in English language classes with Japanese students and was thought to be user-friendly and capable of helping students express themselves in English[126]. For example, Wordtune[127], an AI writing assistant program that helps writers in English enhance their writing abilities by comprehending their ideas, is gaining popularity among English as a Foreign Language communities. Additionally, it might facilitate the use of these

---

[123] N.R. MANNURU, S. SHAHRIAR, Z.A. TEEL, T. WANG, B.D. LUND, S. TIJANI et al (*P. VAIDYA*), *Artificial Intelligence in Developing Countries: The Impact of Generative Artificial Intelligence (AI) Technologies for Development*, in «Information Development», 2023, codice articolo: 02666669231200628.

[124] CHAN, C.K.Y. AND HU, W. (2023) '*Students' voices on generative AI: Perceptions, benefits, and challenges in higher education*', *International Journal of Educational Technology in Higher Education*, 20(1), p. 43. Available at: https://doi.org/10.1186/s41239-023-00399-2 (Accessed: 27 March 2025).

[125] *Ibidem.*

[126] *Ibidem.*

[127] *Ibidem supra note 115.*

resources “for intellectual development and higher-order reasoning” by scholars who are trying to write in a language other than their mother tongue. Students who may not always have the backing of their educational systems, as is the case in industrialized nations, may benefit from having access to these enhancements and recommendations. These students could better their work prospects or seek higher education by using Generative AI to improve their writing. Storytelling [128]and narrative creation are among the most important uses of generative Al. Al is able to create individualized narratives that capture the experiences of those impacted by human rights abuses by analyzing enormous databases. The production of stories that arouse empathy and establish a deeper emotional connection with audiences is made possible by this personalization. Al, for example, is able to incorporate the tales of refugees, war survivors, and discrimination victims into compelling storylines that highlight the issues’ actual human impact. It is able to give voice to those who are frequently ostracized or silenced in this way and it can help creating immersive and interactive experiences in addition to conventional narrative. In order to comprehend the difficulties of applying for asylum or the trauma of forced migration, users could move through virtual landscapes that mimic the experiences of displaced populations. These interactive stories can increase empathy and understanding by giving abstract or far-off topics a sense of immediacy and personal connection. Generative AI is a useful tool for storytelling as well as for producing visual content that reliably and easily depicts human rights issues. The hardships of oppressed populations can be portrayed through al-generated art, which provides visual representations that give abstract themes a more concrete form[129]. Despite the aforementioned points, the explorations conducted so far highlight several limitations and challenges associated with the use of generative AI in creative processes.

Digital literacy, [130] the literacy of the twenty-first century, promotes social equality and necessitates knowledge of the capabilities and degree of autonomy of the machine.

---

[128] R. BANGUN, S. FIKRI, *The Role of Generative AI in Shaping Human Rights and Gender Equity: A Critical Analysis*, in «Journal of Indonesian Legal Studies», 9(2), 2024.

[129] *Ibidem.*

[130] G. PIGNATARO, *La produzione intellettuale dell’IA generativa tra etica e diritto*, in «Diritto Pubblico Europeo - Rassegna online», 22(2), 2024.

Widespread access must be guaranteed by the law; otherwise, the difference will be considerably more pronounced, if not insurmountable, than that observed for non-industrialized nations in the 19th century. Furthermore, in order to guarantee that AI research benefits humanity, the legislation must specify the proper degrees of control depending on the type of use. Critics point out a number of issues[131] that cast doubt on generative AI's place in the creative and intellectual spheres, despite the fact that it presents exciting opportunities for innovation and creativity. Ownership and intellectual property are among the most urgent problems. Because the information required to train these models frequently contain copyrighted content, artificial intelligence operates in a legal limbo. This presents difficult ownership issues, such as whether the producers of the original content, the AI model developers, the prompt provider, or even the AI itself should have the rights to works produced by AI. Traditional ideas of creative authorship and copyright protection are called into question by such ambiguities. The commercialization of human creativity is yet another significant critique. AI's growing ability to produce literary and artistic works has raised concerns that it may diminish the importance of human creativity and effort. The value of artistic talent may be diminished if AI can create visually beautiful graphics, music, or written works with ease. Furthermore, AI-generated material frequently adheres to patterns found in its training data, which could result in a standardization of aesthetics where everything starts to sound or look alike, depriving creativity of its individuality[132]. Another major concern is the possible effects on the economy and the loss of jobs. Creative people including designers, artists, writers, and musicians may see their roles reduced or even replaced as AI capabilities advance. For those whose jobs need creative skills, this change may result in unstable finances. The loss of authenticity in AI-generated art is another issue raised by critics. AI is capable of creating technically stunning stuff, but it lacks the human experience, feelings, and intention that give works of art depth and significance. Even though a portrait or a piece of music is visually or acoustically captivating, does it still

[131] F. DONELLI, *Generative AI and the Creative Industry: Finding Balance Between Apologists and Critics*, in «Medium», 12 marzo 2024, disponibile online al link: https://medium.com/@fdonelli/generative-ai-and-the-creative-industry-finding-balance-between-apologists-and-critics-686f449862fc [ultimo accesso 27 marzo 2025].

[132] *Ibidem.*

have the same meaning if it wasn't produced by human talent, experience, and sensitivity?[133] The function of AI in creativity raises ethical and moral questions in addition to creative ones. Some contend that since creativity is fundamentally human, giving it to machines devalues it and makes it impersonal and mechanical. Questions concerning the essence of artistic expression and its relationship to human identity are brought up by the notion of computers producing art on their own. Furthermore, there are dangers associated with manipulation and misinformation from generative AI. It is a potent instrument for deception since it can quickly create deepfakes, fake news stories, or false visuals. This is especially problematic in political circumstances, as misinformation produced by AI has the potential to skew historical accounts, affect elections, and change public opinion. The wider deterioration of truth in society is closely tied to this. It gets harder to tell the difference between artificial and genuine stuff as AI-generated content gets more realistic. There may be serious repercussions for democracy, social trust, and individual identity if individuals lose faith in what they see, hear, or read. Individual views as well as collective cultural structures are at risk of becoming unstable in a world where reality is continuously questioned[134]. The limited agency users have during the creation process is another important issue. The majority of tools that use this technology only allow for limited editing or fine-tuning of the content that is produced, leaving little opportunity for in-depth interaction. Moreover, the ambiguity surrounding these technologies' creative limits presents another difficulty. The level to which users can attain distinctive and highly customized outcomes and the amount to which they can push their outputs are still unknown. My preliminary research revealed that generative AI techniques frequently generate content with comparable styles and representations. Although changes can be made to increase diversity, it is yet unclear how much of an impact these changes will have on truly unique and customized works[135].

---

[133] *Ibidem.*

[134] *Ibidem.*

[135] K. CHADHA, *Imagine Yourself: Explorations in Fostering Personal Expression With Generative AI*, Tesi di Master, Massachusetts Institute of Technology, 2024.

One of the primary problems with AI's influence on people and personal development is its over-reliance, which over time may impede people's ability to grow, learn, and think. "This may lead to a decrease in critical thinking and make decisions only based on the information that AI provides to them", observed one person. A student pointed out that, in addition to its detrimental effects on critical thinking, "some people may rely too much on AI technology to produce ideas causing them to lose the capacity or inclination to think by themselves", which also affects creativity[136].

In ways that we haven't completely grasped yet, creative algorithms have the potential to drastically alter our creative environment by redefining what we understand by "knowledge", "art", "music", and "literature". The American sociologist Postman writes that "It is a certainty that radical technologies create new definitions of old terms, and that this process takes place without our being fully conscious of it. Thus, it is insidious and dangerous, quite different from the process whereby new technologies introduce new terms to the language. And the reason it poses such an increased threat is because it acts to modify old words whose meanings are ingrained in the very fabric of our society. It redefines 'freedom,' 'truth,' 'intelligence,' 'fact,' 'wisdom,' 'history' – all the words we live by. And it does not pause to tell us. And we do not pause to ask"[137].

According to certain criticisms of generative AI tools, their output is completely created without human input. that the outcome appears to be our product even when it is not the result of our actions. However, according to the Extended Mind Thesis, every tool we use can be pulled into our minds and altered before being released back into the real world. In other words, your brain actually "outsourcest" hat portion of memory to the paper you wrote on when you make a physical to-do list. Similarly, our brains comprehend that when we drive, our thoughts absorb and assimilate the actuality of the car. This also applies to a tool that is held in the hand. In this sense, a tool such as Midjourney is essentially adopted and used by our brains as an extension of our own minds. Like any tool, our

---

[136] C.K.Y. CHAN, W. HU, *Students' Voices on Generative AI: Perceptions, Benefits, and Challenges in Higher Education*, in «International Journal of Educational Technology in Higher Education», 20(1), 2023, p. 43, disponibile online al link: https://doi.org/10.1186/s41239-023-00399-2 [ultimo accesso 27 marzo 2025].

[137] NEIL POSTMAN, *Technopoly: The Surrender of Culture to Technology* (New York: Alfred A Knopf, 1993) at 4-5 [Postman, Technopoly].

minds do more than just absorb knowledge from it; they also expand within it. This dynamic signifies a move toward more consistent forms of emotional expression and participation in cross-cultural discourse, reflecting a deeper shift in our perceptions of and interactions with art [138] . Thus, the democratization of art production is promoting a more vibrant and inclusive art scene. Furthermore, with rapid ideation, "generative AI systems can create hundreds of outputs per minute, which may accelerate the creative process through quicker experimentation". As a result of this accelerated pace, we anticipate that the amount of time it takes for two artists to "engage in conversation", or influence one another, decreases. We should anticipate that art trends will shift more quickly as iteration and conversation speed up[139].

To assess the current state of affairs, it is reasonable to state that the field of creative expression is changing as a result of generative AI, which is upending established conventions and democratizing access to intellectual and artistic endeavors. AI reduces barriers to artistic involvement and promotes a more varied, inclusive, and accessible creative ecosystem by empowering people to create without formal training. By enabling innovative partnerships between computational innovation and human creativity, these technologies broaden the possibilities for human expression. But this change also brings up important issues regarding information acquisition, authorship, and the changing place of creativity in society. Although AI can be a tool for empowering artists, its capacity to produce work on its own raises questions about how conventional creative processes may be diluted and how historical and cultural knowledge may be lost. As we traverse this new era of AI-assisted innovation, striking a balance between augmentation and replacement continues to be crucial. In the end, generative AI is a paradigm change that necessitates careful consideration of its long-term effects; it is not just a technology. The way these technologies are incorporated into artistic and intellectual frameworks will determine whether they empower or stifle creative voices. As we proceed, we must make sure that AI contributes to the depth and diversity of human expression rather than taking away from it.

---

[138] WILL JACKSON, *Generative AI as a Democratizing Force in Fine Arts: Navigating the New Landscape of Creation and Consumption*, Tesi di Dottorato, 2024.

[139] *Ibidem.*

1.6 *Censorship vs. Innovation: The new debate on Free Speech*

The emergence of generative artificial intelligence has made the already difficult and divisive problem of striking a balance between free expression and content restriction much more difficult. The internet has become a more dynamic and unpredictable platform for self-expression as AI technologies develop, and the capacity to create material created by AI has given people a previously unheard-of ability to make their voices heard. With the ease with which users may now produce text, photos, and multimedia information, a level of creativity and communication that was before impossible is now possible. A wider spectrum of people may now participate in and contribute to public debate thanks to these advances, which have created a multitude of new opportunities for artistic and communicative expression. But these developments also bring with them serious difficulties. The same tools that allow for artistic expression also make it easier for damaging speech, deepfakes, and false information to proliferate quickly. Content that is generated automatically has the potential to spread unhealthy narratives and lies, making it harder to tell fact from fiction. Because of this, content monitoring has become increasingly important as the possibility of dangerous content overtaking digital platforms grows.

Free speech advocates contend that generative AI is essential to advancing democratic dialogue. They contend that AI has the ability to eliminate conventional obstacles to expression, give voice to underrepresented groups, and promote a more welcoming atmosphere for discussion by increasing access to creative tools and communication channels. These proponents advise against overregulating AI-generated speech, arguing that doing so could hinder innovation and stifle other points of view, creating a chilling effect that discourages people from freely expressing their opinions. However, proponents of AI-driven content regulation draw attention to the possible risks associated with unrestricted algorithmic speech. They draw attention to the fact that, in the absence of sufficient protections, AI technologies may be widely used to disseminate false information, incite hate speech, and sway public opinion. These proponents contend that in order to guarantee that AI-generated information does not compromise the integrity of public debate or spread false narratives, it is imperative that appropriate regulatory

measures be developed. Thus, the discussion involves striking a careful balance between defending the right to free speech and halting the spread of damaging content that can cause social unrest.

Governments[140] in many nations impose restrictions on the dissemination of information, stifling media outlets, detaining journalists and activists who question the existing quo, and silencing dissenting voices. Subtle types of censorship are becoming more prevalent even in democracies, especially as a result of corporate activity, especially that of technology companies that control the platforms on which a large portion of contemporary discourse takes place. Important issues about the roles of governments, IT firms, and society at large are brought up by the changing landscape of AI-generated content. The conventional frameworks for controlling speech and content are coming under greater pressure as generative AI continues to revolutionize the way we produce and distribute information. One of the main questions at hand is whether AI-generated content should be subject to the same regulations as human expression or if its automated character calls for completely other approaches. Because AI technologies can produce enormous amounts of information at a size and speed that human producers cannot match, it is challenging to apply current norms in a fair and efficient manner, making this subject especially urgent. The difficulty is in making sure that the potential of AI to improve communication does not come at the expense of individual liberties, public confidence, or societal well-being. There has never been a more pressing need to address these issues. The subject of how to control generative AI's influence on society is becoming increasingly urgent as it continues to push the limits of speech. How can we uphold the right to free speech while preventing the spread of damaging content? Without limiting creativity, how can we uphold the moral obligations of platforms and content producers? All facets of society must give careful thought to these issues since they will shape the future of free expression and artificial intelligence. Since the choices taken today will influence the direction of digital communication for future generations, it is imperative that the delicate task of striking a balance between innovation, freedom of expression, and ethical responsibility be approached with consideration. An era of unparalleled connectedness and information exchange has been brought about by the

[140] D.C. YOUVAN, *Freedom of Speech and World Peace: The Role of AI in Facilitating Unmanipulated Global Dialogue*, 2024.

digital revolution, which offers both opportunities and difficulties for the right to free speech and expression. On one end of the spectrum, proponents of unrestricted free speech [141]contend that censorship of any kind, even when done with the best of intentions, creates a risky precedent and goes against core democratic values. They argue that encouraging open discourse, upending conventional wisdom, and advancing intellectual and social advancement all depend on the free exchange of information, regardless of how divisive or hurtful it may be. However, content moderation advocates contend that some speech types, such hate speech, incitements to violence, and the dissemination of clearly incorrect material, can inflict real harm and ought to be subject to appropriate limitations. They contend that the internet is not a lawless place and that action must be taken to prevent dangerous content from spreading, safeguard vulnerable populations, and uphold public confidence and social cohesion. As I've looked at before, interference with a fundamental right-like freedom of expression-must meet the requirements of a three-part test in order to be deemed acceptable.

The restriction must be required by law, pursue a justifiable goal, and be required to accomplish that goal. The state bears the responsibility of proving the validity of the restriction. Internationally, this level of reasoning is widely accepted. Although the three-part test is presented slightly differently in Article 52 of the European Union's Charter of Fundamental Rights and Article 10§ 2 of the European Convention on Human Rights, this approach has been repeatedly upheld by the European Court of Human Rights and the Inter-American Court on Human Rights. Moreover, any restrictions on the right to free speech must be read restrictively. But even though these norms are well-established, we are still in a rather uncharted area when it comes to regulating algorithmic speech[142]. An increasing amount of study is looking at how automation in internet services affects human rights, especially in relation to freedom of expression. Both the advantages and disadvantages of using artificial intelligence in digital communication have been emphasized in reports from organizations like the Council of Europe and David Kaye, the UN Special Rapporteur on freedom of expression. Although AI is essential to people's

[141] P. MOHANTY, A. ANWESHA, *Censorship vs. Freedom: The Digital Age Debate on Speech and Expression*, in «International Journal of Law Management & Humanities», 7(4), 2024, pp. 1656-1665, disponibile online al link: https://doij.org/10.10000/IJLMH.118182 [ultimo accesso 1 aprile 2025].

[142] *Ibidem.*

ability to express themselves and obtain information-it powers social media, search engines, and content distribution networks-its application also poses serious questions regarding the preservation of free expression. Algorithmic systems, on the one hand, are essential for managing enormous volumes of online information, promoting democratic discourse, and guaranteeing the smooth operation of digital platforms. Similar to an email inbox without a spam filter, online spaces run the risk of becoming chaotic in the absence of AI-driven filtering methods. On the other hand, these same technologies present significant problems with regard to prejudice, censorship, and due process. Inadvertently stifling free expression through automated moderation and recommendation systems can reinforce discrimination and reduce the range of viewpoints that are accessible online[143].

As digital platforms depend more and more on automated systems to handle massive volumes of user-generated content, the relationship between AI content moderation and free expression is quickly becoming a crucial topic of concern. Artificial intelligence is used by these platforms, which are essential to contemporary communication, to track and filter the content that millions of users exchange. Although AI-driven moderation systems are intended to shield users from offensive material, they also present serious problems in terms of stifling free speech and the possibility of overreach. Policymakers and software developers alike always struggle with striking a delicate balance between preserving free expression and eliminating offensive or unlawful content. Enshrined in national constitutions and different international human rights frameworks, free expression is a fundamental human right and a cornerstone of democratic societies. People can share their thoughts, opinions, and ideas without worrying about censorship or reprisal because to this freedom, which is essential for promoting free speech and a variety of viewpoints in public. However, the growing use of AI in content filtering brings with it new dynamics that could affect this right in unexpected ways already known. Though AI systems are intended to enforce content regulations by detecting and eliminating content that is considered dangerous or unsuitable, these technologies are not without problems of their own. While AI moderation can undoubtedly be useful in

[143] E. LLANSÓ, J. VAN HOBOKEN, P. LEERSSEN, J. HARAMBAM, *Artificial Intelligence, Content Moderation, and Freedom of Expression*, 2020.

stopping the spread of bad content, like hate speech, misinformation, and other illicit materials, it can also unintentionally stifle free speech[144].

The potential for false positives and false negatives[145] is one of the main issues with AI-driven moderation. When automated systems falsely flag or remove acceptable content because they believe it to be harmful or unsuitable, this is known as a false positive. A political viewpoint, satire, or even anything that questions popular narratives could fall under this category; such content shouldn't be restricted. These mistakes stifle the diversity of viewpoints and ideas that free speech is supposed to safeguard by resulting in unfair speech limitations and user quiet. Conversely, false negatives happen when the system fails to identify or eliminate unwanted content, including hate speech, misinformation, or graphic violence, allowing it to continue and proliferate unchecked. This mistake can have serious repercussions, particularly in a time when hate speech and false information can spread swiftly and destroy people, communities, and societies in the real world. Such content's continued presence on digital platforms compromises the security and inclusivity of online environments and may deter some people or groups from engaging in public debate out of concern that they may be exposed to offensive or damaging content. Furthermore, these problems may be made worse by automatic content moderation systems that go too far. The possibility that increasingly sophisticated AI systems would err on the side of caution and censor or restrict content that doesn't actually break platform regulations is increasing. The ideals of free speech that these platforms are supposed to support may be undermined in the long run by this overreach, which can suppress differing opinions and prevent candid dialogue. The fundamental basis of internet forums intended for public discussion is compromised when content is deleted without sufficient scrutiny or context. The increasing dependence on automated systems for content moderation creates new conflicts between defending users' right to free speech and shielding them from offensive information. Digital platforms and authorities must figure out how to reduce the risks of overreach, false positives, and false negatives as AI-driven moderation develops. It takes a cautious and deliberate strategy that puts safety and transparency in online settings first in order to guarantee that AI systems respect free

[144] O. PARKER, *Navigating the Privacy-Freedom Dilemma: The Impact of AI on Content Moderation and Free Speech*, 2024.

[145] *Ibidem supra note 85.*

expression while successfully eliminating hazardous information. This delicate balance is essential for safeguarding the democratic norms that free speech upholds as well as for maintaining the integrity of online conversation.

Algorithmic bias [146]is a serious issue with AI content moderation as well. Large-scale datasets gathered from real-world sources are used to train AI systems, and these systems invariably reflect the societal biases inherent in the data. AI systems may unintentionally reinforce preexisting disparities as a result of these biases, whether they are overt or covert. When marginalized groups, like racial or ethnic minorities, are disproportionately impacted, this becomes very problematic. Even when individuals are voicing valid opinions, their voices may be incorrectly labeled as dangerous or unsuitable, or their content may not be sufficiently shielded from harassment and abuse online. In addition to endangering the impartiality of content regulation, the possibility of biased algorithmic decision-making makes the social injustices that these populations already experience in the digital sphere worse. The extensive processing of user data necessary for efficient algorithmic moderation presents significant privacy issues in addition to algorithmic bias[147]. Massive volumes of personal data, such as voice patterns, user behavior, and interaction histories, are frequently analyzed by AI-driven moderation systems. By using this information to create profiles of people, computers are able to forecast the kind of material that people will interact with or create. Such profiling poses privacy implications even though it can make it easier for AI systems to filter information. The fact that a large portion of the data used for moderation is gathered without the express consent of users and that it might be challenging for users to completely comprehend how their personal information is being used makes this more troubling. Therefore, it is crucial to carefully assess how these technologies are implemented, as the increasing dependence on AI for content filtering exacerbates the tension between safeguarding private rights and maintaining a safe digital environment. Another crucial component of AI moderation is the problem of previous restraint. Before any human review occurs, automated systems that operate as gatekeepers by blocking or restricting information in advance raise severe concerns about censorship. Pre-screening techniques are widely recognized for their

[146] E. LLANSÓ, J. VAN HOBOKEN, P. LEERSSEN, J. HARAMBAM, *Artificial Intelligence, Content Moderation, and Freedom of Expression*, 2020.

[147] *Ibidem.*

ability to prevent spam, spyware, and child exploitation, but when used to other forms of speech, they pose serious threats to the right to free speech. Platforms face the danger of over-censoring acceptable information and suppressing important discourse when they remove content based on algorithmic predictions before it has been thoroughly evaluated. The idea that people should have the freedom to openly express their opinions, subject to only specific and well-defined limitations, is undermined by this preventative strategy. In this situation, automatic content moderation tools may unintentionally have the opposite effect, discouraging people from voicing their thoughts or participating in free discussion out of concern that their content may be arbitrarily deleted[148]. Furthermore, these problems are made more difficult by the opacity of AI algorithms. The opaqueness of the decision-making process is a major problem with AI-driven moderation. It can be challenging for users to comprehend the reasoning behind these measures or to successfully challenge them since they are frequently kept in the dark about why their content was flagged or removed[149].

As stated before, many AI systems operate as "black boxes", which means that neither users nor the regulators in charge of the platforms are given access to the inner workings of the algorithms. Users are unable to challenge unjust content removals or account suspensions because they lack the information they need to make an informed appeal due to this opacity. Users may believe that their freedom of expression is being unjustly constrained in the absence of clear explanations and complaint methods, which might erode platform trust and deter future participation. Concerns regarding accountability are also raised by this lack of transparency. AI frequently falls short of the strict requirements needed to protect free speech under international human rights frameworks because it relies on statistical analyses rather than case-by-case legal determinations. These frameworks usually ask for a thorough examination and an open, responsible procedure for any limitations on the right to free speech. However, it is challenging to guarantee that these requirements are fulfilled due to the automated nature of AI content filtering and its

---

[148] *Ibidem.*

[149] O. PARKER, *Navigating the Privacy-Freedom Dilemma: The Impact of AI on Content Moderation and Free Speech*, 2024.

opaque decision-making process[150]. In addition to undermining individual rights, the lack of explicit justifications and channels for appeal has wider ramifications for how digital platforms operate. Users may start to mistrust the platforms they use as they learn more about the dangers of AI-driven censorship, which would reduce user involvement and engagement. A larger social worry about the growing influence of private corporations on public opinion may also be exacerbated by this mistrust. Ultimately, the unrestrained use of AI in content regulation could have a chilling effect on free speech, impeding open discourse and the interchange of ideas, if proper controls are not in place[151].

In the past[152], administrators and moderators of public forums, chatrooms, and other communication tools were primarily responsible for controlling online material. Enforcement occurs when a platform's community standards or Terms of Service are allegedly broken. This entirely human-based method is ineffective, especially on well-known social media sites where a vast volume of content is created. For many years, content moderation depended on low-wage workers who frequently toiled in hazardous and traumatic environments for as little as $6 a day. Large-scale platforms now depend more and more on artificial intelligence (AI) and machine learning (ML) systems as their first line of defense. These systems frequently operate without human contextual checks, resulting in a great deal of collateral damage in the form of accounts that are mistakenly banned. There are various difficulties with this AI-powered method of content control. The challenge of creating sophisticated systems that can reliably discern between content that actually contravenes platform guidelines and stuff that ought to be kept available is one of the primary problems. Because of this, AI moderation frequently runs the risk of over-censoring acceptable content while omitting any hazardous content. Furthermore, AI is ultimately in charge of upholding community standards on a platform, which may result in individuals being unjustly blacklisted. These users frequently find it difficult to appeal their case because they can't get in touch with a human moderator to have the

---

[150] E. LLANSÓ, J. VAN HOBOKEN, P. LEERSSEN, J. HARAMBAM, *Artificial Intelligence, Content Moderation, and Freedom of Expression*, 2020.

[151] O. PARKER, *Navigating the Privacy-Freedom Dilemma: The Impact of AI on Content Moderation and Free Speech*, 2024.

[152] B. OTTMAN et al (*M.D. Davis*, *R. Reconciliator*, *J. Ottman*, *N. Lewis*), *The Censorship Effect*, s.d.

ruling reviewed. The problem is made more difficult by this lack of recourse and transparency. The fact that the community itself has no say or role in the moderation process is another major worry. Users have little to no control over the rules that regulate their online activities, and AI-driven systems function in a completely opaque manner[153]. The necessity for careful calibration and human control is highlighted by the possibility of over-censorship, in which acceptable expression is inadvertently identified or eliminated. There are serious issues when free speech and AI moderation collide. The fundamental tenet of free expression is in danger of being overreached, where valuable and lawful content is suppressed. Upholding free expression in digital spaces requires that AI systems function transparently and fairly and that users have access to appeal procedures[154]. Ensuring that privacy rights are respected while maintaining efficient content moderation is a major challenge, as is striking a fine balance between content monitoring and protecting personal data[155].

The fairness of automated enforcement systems and accountability are two further ethical concerns brought up by this omission. Due to the fact that AI systems are increasingly being used to enforce content regulations on digital platforms, there are serious issues about transparency, fairness, and the possibility of bias. Content is evaluated and classified as either in violation of a policy or not in most AI-driven content moderation systems, which characterize transgressions as classification challenges. The content is either eliminated or retained based on this classification. Although this dichotomous approach may be effective in certain situations, it ignores the subtleties of free speech and oversimplifies the complexity of online communication[156]. For instance, picture recognition software is frequently used to identify sensitive information, such as nudity. Facebook states that their algorithmic classification eliminates 99.2% of nudity, and AI is also used to detect and flag terrorist content. Facebook's AI is said to be able to recognize 99.5% of terrorist content, which led to the removal of about 1.9 million pieces of content

---

[153] *Ibidem.*

[154] O. PARKER, *Navigating the Privacy-Freedom Dilemma: The Impact of AI on Content Moderation and Free Speech*, 2024.

[155] L. CHOLI, P. RICO, *Balancing Free Speech and Algorithmic Control: Navigating Privacy and Expression in the AI Era*, 2024.

[156] B. OTTMAN et al (*M.D. Davis*, *R. Reconciliator*, *J. Ottman*, *N. Lewis*), *The Censorship Effect*, s.d.

in the first quarter of this year alone. Additionally, according to the BBC, Facebook's systems could identify 99.5% of propaganda linked to terrorist organizations like Al-Qaeda and ISIS. Although these figures may seem impressive at first glance, they don't provide much information about the total amount of terrorist content on the site or the precision of these automated procedures. The 99.5% percentage only includes content that was spotted and taken down before users had an opportunity to report it; it doesn't take into consideration the accuracy of these removals or the possibility of overreach[157]. Because they imply a high degree of effectiveness in identifying and eliminating hazardous content, such figures can be deceptive. Nevertheless, the fundamental constraints of the algorithmic framework are frequently disregarded. For instance, even while the AI can detect and flag 99.5% of terrorist content, it might also wrongly mark harmless content as dangerous, which could result in the unfair removal of accounts or messages that don't break any rules. This raises the moral conundrum of using automated systems to filter information, particularly when those algorithms are ill-equipped to deal with the complexity of context, intent, and the range of expression present on digital platforms. Furthermore, these numbers may provide the public a false sense of security by encouraging an excessive reliance on AI systems to manage content filtering without a thorough awareness of the mistakes these systems could make[158]. The public might start to think of AI as a perfect tool for controlling content, but in practice, it works under a number of presumptions and restrictions that could have serious repercussions for users. Without taking into account the nuances of free speech, a system that identifies 99.5% of terrorist content, for example, may wind up limiting dissent or legitimate political expression. If people don't fully understand the true implications of these systems, including the possibility of over-censorship and misclassification, their confidence in AI's abilities to filter dangerous information may be misplaced.

Platforms[159] must provide transparent, equitable, and unambiguous content policies and effectively inform users of them. Furthermore, adding human oversight to the moderation

---

[157] *Ibidem.*

[158] *Ibidem.*

[159] O. PARKER, *Navigating the Privacy-Freedom Dilemma: The Impact of AI on Content Moderation and Free Speech*, 2024.

process can assist overcome AI's shortcomings and guarantee that content is assessed with the appropriate context and subtlety. Upholding free speech also requires giving users easily accessible channels to challenge moderation decisions and pursue remedies. Maintaining an open and democratic digital environment requires finding the ideal balance between eliminating harmful content and allowing for a range of speech. Platforms can develop moderation systems that promote user safety and the fundamental right to free expression by addressing issues of prejudice, transparency, and over-censorship. AI has enormous promise for elevating the voices of underrepresented and underprivileged people[160], going beyond merely identifying bad content. Social media algorithms and AI-driven content platforms make it feasible to guarantee that the issues and experiences of these groups are not only recognized but also actively incorporated into media narratives, public policy debates, and larger society discussions. Due to a variety of structural biases, many perspectives have historically been ignored or muted in the public discourse and mainstream media. But by utilizing AI, we can help these voices become more prominent, giving them the opportunity to tell their tales, bring attention to their struggles, and influence the political and cultural spheres of society. With a distinct emphasis on promoting inclusion and equity in the digital sphere, platforms such as AI4All [161]are excellent illustrations of how AI may be applied for social good. For example, AI4All places a high priority on the creation of AI systems that seek to level the playing field so that everyone, irrespective of identity or background, has an equal chance to participate in the digital sphere and have meaningful conversations. These efforts enable the active overcoming of the obstacles that usually keep underrepresented communities from being heard by focusing AI technology on promoting diversity. AI can also be used to guarantee that many cultural viewpoints are represented in digital content, which will increase the variety of online narratives that are shared. It has the potential to de-center dominant voices and highlight people who are frequently left out of mainstream media platforms by using algorithms that are intended to foster diversity. By presenting a

[160] D.C. YOUVAN, *Freedom of Speech and World Peace: The Role of AI in Facilitating Unmanipulated Global Dialogue*, 2024.

[161] *Ibidem.*

wider range of perspectives, this could enhance public discourse and promote more equitable decision-making in social activism, media coverage, and public policy.

AI technologies have the potential to upend established power structures and make room for a wider variety of viewpoints by fostering a more equitable and inclusive digital ecosystem. In addition to giving underrepresented groups more visibility, this makes it possible to have a more active public conversation in which the goals and worries of all communities are taken into account. AI's contribution to creating a more welcoming atmosphere will be essential in determining how communication develops in the digital era, guaranteeing that no voice goes unheard[162].

[162] *Ibidem.*

CHAPTER TWO

THE EXPANDING REGULATORY FRAMEWORK OF GENERATIVE AI

SUMMARY: **2.1** *Defining Artificial Intelligence and Generative AI: Legal and Technical Perspectives*; **2.2** *The evolving landscape of Generative AI: Shaping the future of legal norms*; **2.3** *How different jurisdictions tackle AI regulation*; **2.4** *The European regulatory approach: Balancing innovation and legal safeguards*; **2.5** *The United States approach: Balancing innovation and legal safeguards;* **2.6** *The Chinese Model: A state-controlled approach to AI regulation*; **2.7** *Key challenges in regulating AI creativity: The ethical and legal dilemmas ahead.*

2.1 *Defining Artificial Intelligence and Generative AI: Legal and Technical Perspectives*

Are existing regulatory models adequate to address the risks and opportunities related to generative AI creativity while safeguarding freedom of expression? Before delving into the different regulatory reactions to AI and trying to answer the research question of this chapter, it is fundamental to take a step back and define artificial intelligence (AI) and generative AI in particular. Even with its extensive use, artificial intelligence is still a vague legal term in many places, making it difficult to regulate effectively. The Proposal for a Regulation laying down harmonized rules on artificial intelligence (Artificial Intelligence Act) has the most advanced legal definition at the European level[163]. Europeans can have faith in the potential of AI thanks to the AI Act. While the majority of AI systems are low-risk and can help solve many social problems, some AI systems present hazards that need to be addressed to prevent unfavorable results[164]. Frequently, for instance, it is impossible to determine the rationale behind a decision, prediction, or action performed by an AI system. Therefore, it could be challenging to determine whether someone has been unjustly disadvantaged, for example, in an employment decision or when applying for a public benefit program. While some protection is offered by current laws, they are not enough to handle the unique difficulties that AI systems can

[163] ARTIFICIAL INTELLIGENCE ACT, *Proposal for a Regulation of the European Parliament and of the Council laying down harmonised rules on artificial intelligence* (COM/2021/206 final), Art. 3(1).

[164] EUROPEAN COMMISSION, *Regulatory Framework Proposal on Artificial Intelligence*, in «Digital-strategy.ec.europa.eu», 2021, disponibile online al link: https://digital-strategy.ec.europa.eu/en/policies/regulatory-framework-ai [ultimo accesso 6 maggio 2025].

present[165]. Article 3(1) of the proposed regulation defines an artificial intelligence system as "a machine-based system designed to operate with varying levels of autonomy and that may exhibit adaptiveness after deployment and that, for explicit or implicit objectives, infers, from the input it receives, how to generate outputs such as predictions, content, recommendations, or decisions"[166]. This concept, which covers a broad range of AI techniques like machine learning, deep learning models, and symbolic reasoning, is purposefully technologically neutral. The Act discusses generative AI under the more general heading of general-purpose AI systems rather than providing a precise definition. As Recital 60 states[167], these systems are "designed to be used in many applications and adapted to perform a wide range of tasks[168]" which consists of generative and foundation models that have been trained on big datasets to produce text, images, and music on its own. Among the vast institutions that proposed a definition of Artificial Intelligence, the Organization for Economic Co-operation and Development[169] (OECD), in its 2021 Framework for the Classification of AI Systems, describes generative AI as systems that "can produce novel outputs that resemble the distribution of the data on which they were trained[170]". Although the framework [171]is generic in nature, it enables users to focus on particular issues that are typical of AI, such as bias, explainability, and robustness. It makes detailed and nuanced policy debate easier. Since the features of AI systems affect the technical and procedural steps required for their implementation, the framework can also aid in the development of policies and regulations. It specifically helps a range of

[165] *Ibidem.*

[166] ARTIFICIAL INTELLIGENCE ACT, *Proposal for a Regulation of the European Parliament and of the Council laying down harmonised rules on artificial intelligence* (COM/2021/206 final), Art. 3(1).

[167] ARTIFICIAL INTELLIGENCE ACT, *Recital 60,* disponibile online al link: https://artificialintelligenceact.eu/recital/60/ [ultimo accesso 6 maggio 2025].

[168] *Ibidem.*

[169] OECD, *Framework for the Classification of AI Systems*, in «OECD.org», 2021, disponibile online al link: https://www.oecd.org/en/publications/oecd-framework-for-the-classification-of-ai-systems_cb6d9eca-en.html [ultimo accesso 6 maggio 2025].

[170] *Ibidem.*

[171] OECD, *Framework for the Classification of AI Systems*, in «OECD.org», 2022, disponibile online al link: https://www.oecd.org/content/dam/oecd/en/publications/reports/2022/02/oecd-framework-for-the-classification-of-ai-systems_336a8b57/cb6d9eca-en.pdf [ultimo accesso 6 maggio 2025].

stakeholders develop a shared knowledge of artificial intelligence (AI) and its key features so they may customize regulations for different kinds of AI systems. In algorithm inventories, also known as registers of automated decision systems, which are being developed in several jurisdictions, describe AI systems and their fundamental features[172]. It also serves as the foundation for more thorough applications or domain-specific criterion catalogs, such as those in the healthcare, financial, or industrial sectors. For instance, the classification framework for AI systems is being used and modified by the UK National Institute of Health and Care Excellence (NICE) Health Technology Assessment (HTA) program and the UK Medicines and Healthcare Products Regulatory Agency (MHRA) to help with triaging technologies for health technology assessment. moreover, it establishes a foundation for a weighted risk-assessment tool that may support risk mitigation and reduction strategies. Throughout the lifecycle of AI systems, it also provides information for associated work on mitigation, compliance, and enforcement[173].

The UNESCO[174] Recommendation on the Ethics of Artificial Intelligence (2021) further emphasizes the need for accountability, transparency, and human oversight by defining AI as "information-processing technologies that can learn and adapt their behavior over time"[175]. Four key tenets form the foundation of that recommendation's ideals[176]. These include preserving and advancing human rights, fundamental freedoms, and dignity; fostering a healthy environment and ecosystem; guaranteeing diversity and inclusivity; and residing in societies that are peaceful, just, and interdependent. The core principles of human rights and dignity are indicated by the first part of the values. In the primary indicators of freedom, UNESCO unequivocally declares that every human being's dignity

---

[172] *Ibidem.*

[173] *Ibidem.*

[174] UNESCO, *Recommendation on the Ethics of Artificial Intelligence*, in «Unesco.org», 2021, disponibile online al link: https://www.unesco.org/en/articles/recommendation-ethics-artificial-intelligence [ultimo accesso 6 maggio 2025].

[175] *Ibidem.*

[176] R.U. PASOPATI et al (*C.P. Bethari, D.S.F. Nurdin, M.S. Camila, S.A. Hidayat*), *Ethical Consequentialism in Values and Principles of UNESCO's Recommendation on the Ethics of Artificial Intelligence*, in «Proceeding International Conference on Religion, Science and Education», 3, 2024, pp. 567-579.

is completely universal, indivisible, inalienable, interdependent, and connected. The concept of dignity is dynamic and must be acknowledged by AI advancements as well. Respecting, defending, and advancing each person's inherent dignity and rights to equal worth is essential[177]. This suggests that the advancement of AI should transcend all constraints and limitations imposed by different hierarchical differentiations, including those based on race, color, gender, age, language, religion, economic or social background at birth, or even disability. Therefore, during any stage of the development of AI systems, no human being or its community should be hurt or subjugated in any way-physically, economically, socially, politically, culturally, or intellectually. The fundamental tenet of AI must therefore be applied to improve the standard of living for all people, not just a select few[178]. Any human being's dignity could be further ensured by keeping it completely open in order to prevent any infringement or misuse of fundamental liberties and human rights. Furthermore, the people who truly need AI should be the ones using it. The UN uses the notion of vulnerable people to give them priority for various forms of aid. These individuals include youngsters, the elderly, people with impairments, and those who are ill. AI could be very helpful in promoting greater equality of human dignity between these individuals and other regular people if it prioritizes them. To improve the prioritization of AI in daily life, this progress must be implemented by the actors-governments, the commercial sector, civil society, international organizations, technical communities, and academia[179].The second section on environmental and ecosystem thriving demonstrates that the positive coexistence of humans' natural surroundings must always be taken into account when developing AI. The idea of sustainable development and the preservation and repair of the environment and ecosystems must always guide the development of AI. AI systems' environmental impact, including carbon footprints in relation to climate change and environmental risk factors, must be reduced. Additionally, unsustainable resource transformation and exploitation that contributes to environmental

[177] R.U. PASOPATI et al (*C.P. Bethari, D.S.F. Nurdin, M.S. Camila, S.A. Hidayat*), *Ethical Consequentialism in Values and Principles of UNESCO's Recommendation on the Ethics of Artificial Intelligence*, in «Proceeding International Conference on Religion, Science and Education», 3, 2024, pp. 567-579.

[178] *Ibidem.*

[179] *Ibidem.*

and ecological degradation must be curbed and modified[180]. The final section emphasizes that diversity and inclusivity must constantly be considered when improving AI. Any diverse state must be appreciated by its central idea. The life cycle of AI must prioritize the protection and advancement of personal experiences, ideas, opinions, expressions, and lifestyle choices. Furthermore, every advancement must always include an attempt to address the deficiency of the requisite knowledge, skills, and technological infrastructure. This is necessary to prevent AI from being used to standardize the many human circumstances. Since AI is a machine, it must be used for the greater welfare and benefit of all people, without exception. The fourth section highlights AI-related issues that must align with any underlying theories about how to live in harmonious, equitable, and linked society. According to the UN, justice is the continuation of a linked future for the benefit of all in a variety of ways that respect fundamental freedoms and human rights. Each and every person is a part of a larger totality that must exclude all forms of selfishness. In order to continue the ongoing search for harmonious relationships between humans and the natural world, organic solidarity must always be constrained by AI advancements[181]. The signals of AI progress must also be improved through a peaceful effort. Not separating, objectifying, or degrading freedom should further emphasize inclusivity, justice, equity, and interconnectivity. Additionally, autonomous decision-making for human and community safety needs to be improved. The goal of using AI should also be to eliminate any threat to the cohabitation of people, other living things, and the environment. The aforementioned four points highlight how any advancement in AI must be predicated on the inherent values of people. The existence of AI must not cause harm to any human[182]. Instead, it ought to improve and benefit humankind as a whole. By using human values, artificial intelligence should eradicate all forms of inequality. The underlying assumptions of those values-that is, the dignity of people in all circumstances-are evident. Human diversity is another important factor that needs to be considered in

[180] R.U. PASOPATI et al (*C.P. Bethari, D.S.F. Nurdin, M.S. Camila, S.A. Hidayat*), *Ethical Consequentialism in Values and Principles of UNESCO's Recommendation on the Ethics of Artificial Intelligence*, in «Proceeding International Conference on Religion, Science and Education», 3, 2024, pp. 567-579.

[181] *Ibidem.*

[182] *Ibidem.*

any AI development. The fundamental tenet of AI is that no human being's individuality should ever be eliminated[183].

There isn't a legally binding definition of artificial intelligence in the US. "A computer program or machine's ability to carry out actions or thinking processes that we typically identify with human intelligence"[184], on the other hand, is what the National Institute of Standards and Technology (NIST) characterizes as artificial intelligence[185]. Current efforts, including the AI Risk Management Framework (2023), recognize the unique dangers associated with generative AI in content creation, disinformation, and copyright by differentiating between narrow AI, general-purpose AI, and foundation models[186].

The complexity and dynamic nature of AI are reflected in these various definitions. Technical definitions encapsulate the fundamental logic of learning and generation, whereas legal definitions concentrate on regulatory thresholds. The following definition of generative AI will be used in this thesis: "a class of artificial intelligence (AI) systems based on large-scale models that can create new content, like text, images and music, that mimics human-generated material on their own, frequently with little to no direct human input". Significant legal ramifications result from the development of such systems, especially when considering copyright law, data protection, and freedom of expression, all of which will be thoroughly examined in the upcoming chapters.

---

[183] R.U. PASOPATI et al (*C.P. Bethari, D.S.F. Nurdin, M.S. Camila, S.A. Hidayat*), *Ethical Consequentialism in Values and Principles of UNESCO's Recommendation on the Ethics of Artificial Intelligence*, in «Proceeding International Conference on Religion, Science and Education», 3, 2024, pp. 567-579.

[184] NIST, *Artificial Intelligence – Frequently Asked Questions*, U.S. Department of Commerce, 2022.

[185] *Ibidem.*

[186] NIST, *AI Risk Management Framework*, in «Nist.gov», 2023, disponibile online al link: https://www.nist.gov/itl/ai-risk-management-framework [ultimo accesso 6 maggio 2025].

2.2. *The evolving landscape of Generative AI: Shaping the future of legal norms*

The actual legal landscape is being drastically altered by the introduction of generative artificial intelligence. Traditional ideas of authorship, ownership, and enforcement in IP law are challenged by the intricacy that increasingly complex AI technology provide. These modifications have significant ramifications, underscoring the pressing necessity for continual legislative revisions and adaptations[187]. An essential but not sufficient requirement for social equality as a democratic objective is widespread and fair access to the advantages of AI. This is made even more important as our physical and cognitive activities become more and more dependent on technology. The 21st century's hallmark, digital literacy, promotes social equality and necessitates knowledge of the capabilities and level of autonomy of machines. Widespread access must be ensured by the law; otherwise, the gap could be worse than that of the 19th century for non-industrialized nations, if not irreversible[188]. The internal duality of intellectual property law is exacerbated by artificial intelligence products, which are no longer restricted to the type of interest-whether economic or personal. Furthermore, given that machines lack legal subjectivity, the relationship between the creative process and market dynamics, as well as between the protection of investments and the stimulation of creativity, affects the assessment of whether it is appropriate to grant ownership rights over such products. Determining what constitutes a decisive human contribution-a prerequisite for the state to provide protection for legally significant activities—is the main concern. In contrast to intangible goods that are subject to exclusive appropriation, generative artificial intelligence systems contribute to the *ius utendi and abutendi* of the good's generative potential. This creates a conflict between the creator and the investor. The investor wants to put the innovative items on the market and sees the AI system they have

---

[187] G.O. MBAH, *The Role of Artificial Intelligence in Shaping Future Intellectual Property Law and Policy: Regulatory Challenges and Ethical Considerations*, in «Journal of Emerging Technologies and Innovative Research», 10(12), 2024, pp. 351-354.

[188] G.PIGNATARO, *La produzione intellettuale dell'IA generativa tra etica e diritto,* in «Diritto Pubblico Europeo-Rassegna online», 22(2), 2024.

purchased as a productive asset whose benefits belong to the owner or, at most, the licensee as a legitimate possessor. The exclusive right is a legitimate right that is enforceable *erga omnes,* not just against business owners or rivals, even when the regulatory system forbids unfair competition[189].

Whether or not the legislative environment should provide incentives for generative artificial intelligence is the main policy concern that is still pertinent. This subject specifically comes up in relation to the possibility of adding *sui generis* types of protection or expanding the current copyright protection to computer-generated works[190]. Policy directions for generative AI and AI-generated creativity are influenced by theoretical factors. Since the theoretical arguments used to examine the concept of AI authorship have a direct impact on policy paths and reform options, it is especially important to navigate the deontological theories that underpin copyright law when investigating the role and implications of generative AI. In this regard, the rise of generative artificial intelligence presents an intriguing theoretical conundrum that revolves around the meeting point of personhood and incentive theory. The two theoretical frameworks that have influenced copyright law are welfare theory and personality theory[191]. Every viewpoint contributes a distinct interpretation of rights and their rationale, which shapes our potential approach to the development of AI in creative fields. European copyright law has historically been supported by personality ideas, which have their roots in the natural rights concept and come from the civil law tradition and German idealism. They claim an inalienable natural right to intellectual works because they see them as manifestations of the creator's personality. Welfare and cultural theories, on the other hand, take a collectivist and progressive stance. Wellbeing theory aims to maximize societal wellbeing and is based on Bentham and Mill's utilitarianism and economic law analysis. Often called "incentive theory", this viewpoint promotes the structuring of rights to encourage creation, creating a dynamic creative

[189] *Ibidem.*

[190] G. FROSIO, *Should We Ban Generative AI, Incentivise it or Make it a Medium for Inclusive Creativity?*, in E. Bonadio, C. Sganga (a cura di), *A Research Agenda for EU Copyright Law*, Edward Elgar, Cheltenham, 2025 (forthcoming), disponibile online al link: https://ssrn.com/abstract=4527461 [ultimo accesso 5 febbraio 2025].

[191] *Ibidem.*

environment that goes beyond incentives for current innovation and lays the foundation for future creative ecosystems. The anthropocentric viewpoints influenced by personality theory have greatly influenced current copyright law, which is struggling with the emergence of AI-generated innovation. The fundamental tenets of this legal system-originality, authorship, and legal personality-seem to elude algorithm-generated works.

AI-generated works are difficult for personality theories to explain since they are predicated on the idea that a work is an extension of the author's personality and, consequently, their humanity. It is difficult to find any expressions that are protected because they are the result of free human decisions when the relationship between human agency and the work becomes so shaky. Furthermore, according to this viewpoint, machines are personality-less because they lack human consciousness or self-awareness. The possibility that their contributions could be protected by copyright is weakened by this apparent absence. However, a more adaptable framework is provided by incentive theory, sometimes known as utilitarianism, which is popular in common law jurisdictions and the United States. Discussions supporting non-human authorship and the protectability of AI-generated creativity are made possible by this perspective, which is less concerned with the author's humanity. According to this theory, financial incentives could be used to promote the expansion of the AI sector and guarantee the widespread distribution of works produced by AI. Assigning human authorship would ultimately aim to achieve these incentives[192]. USACM's (the U.S. Association for Computing Machinery)[193] recent Statement on Algorithmic Transparency and Accountability, released in January 2017, provides an intriguing, if early, illustration of this blending of constitutional law and technological expertise. As a fundamental component of the Association's Code of Ethics, the American association has established seven principles that all developers must abide by. This is in recognition of the increasing prevalence of algorithms in daily life and the growing awareness that « some of these may also be 'opaque', making it impossible to determine whether their decisions are discriminatory or erroneous ». To reduce the "collateral" harm caused by algorithmic decision-making, these guidelines must be adhered to at every level of system development and

[192] *Ibidem.*

[193] A.SIMONCINI, *L'algoritmo incostituzionale: intelligenza artificiale e il futuro delle libertà*, in «BioLaw Journal», 2019, pp. 63-89.

deployment. According to the first principle, “awareness”, « owners, designers, builders, users, and other stakeholders of analytic systems should be aware of the potential harm these biases can cause to individuals and to society, as well as the possible biases involved in their design, implementation, and use ». One of the other responsibilities is the “explanation” obligation, which states that “systems or institutions that use algorithmic decision-making are encouraged to produce explanations regarding both the procedures followed by the algorithms and the specific decisions they make”. In the realm of public policy, this idea is especially pertinent. It also seems that other international institutions, including the European Union and the Council of Europe, are heading in the same direction[194]. These incentives may be advantageous for the human actors working with AI systems, even though computers don’t need them to produce output. An increasing number of people are arguing for more incentives to entice businesses to spend money on creating intelligent machines. Others make the case for compensating users who teach and train AI to produce content at the same time. However, civil law countries may be less open to welfare and incentive-based arguments, preferring systemic stability, even while incentives might encourage innovation and the commercialization of AI-generated inventions. Resistance to departing from personality theory and its notion of originality may result from this. Given their possible influence on human innovation, their coexistence with the preservation and advancement of human personality, and the wider societal ramifications, the necessity and effectiveness of such incentives are up for debate. The next question is whether there should be any incentives for AI-generated creativity[195]. Due mostly to the reactive nature of legal remedies, the quick development of AI technologies has exposed legal gaps. The revolutionary effects of AI are frequently not foreseen by current legislation, which results in unclear responsibility, moral conundrums, and regulatory inconsistencies. For example, the intricacy of intellectual property (IP) rights in generative AI creations is not adequately addressed by current legislation. AI-generated work challenges the idea of human authorship, which is central

[194] *Ibidem.*

[195] G. FROSIO, *Should We Ban Generative AI, Incentivise it or Make it a Medium for Inclusive Creativity?*, in E. Bonadio, C. Sganga (a cura di), *A Research Agenda for EU Copyright Law*, Edward Elgar, Cheltenham, 2025 (forthcoming), disponibile online al link: https://ssrn.com/abstract=4527461 [ultimo accesso 5 febbraio 2025].

to traditional IP rules. This has resulted in contentious discussions over ownership, infringement, and compensation[196].

The issue of authorship in relation to AI-generated works [197]is one of the most prominent ways that AI has impacted IP law. A human author has historically been necessary for a work to be protected under copyright law. However, the definition of authorship is being questioned as AI systems produce more and more original content. Legislators and courts must decide whether artificial intelligence (AI) can be regarded as an author and, if not, how to provide credit to the technology's human creators or users. Legal frameworks must change to reflect these new realities as AI continues to generate creative outputs on its own, possibly redefining what an IP "creator" is. Furthermore, the enforcement of intellectual property rights is called into question by AI's capacity to analyze enormous volumes of data and produce insights. Automated systems have the ability to speed up the identification of violations and unlawful use of protected works, but they also run the risk of fostering a culture of constant surveillance that could result in serious civil rights and privacy violations. Legal remedies need to take into account both the ethical ramifications of using AI in IP enforcement as well as its technical capabilities.

Copyright protection is one important area of IP law that AI has an impact on. AI-generated literature, art, and music raise concerns about whether these works are protected by copyright and, if so, who is the legitimate owner of the copyright-the AI system, the developer, or the person using the AI? Courts have typically rejected non-human entities as writers since traditional copyright laws are predicated on human authorship[198]. A monkey's selfie, for instance, was declared ineligible for copyright protection in the historic case of Naruto v. Slater (2018) because the U.S. Copyright Act does not recognize non-human authors. This is because AI presents difficulties because its output is frequently greatly influenced by programming, making it challenging to

---

[196] X.WANG, Y.C. WU, *Balancing Innovation and Regulation in the Age of Generative Artificial Intelligence*, in «Journal of Information Policy», 14, 2024.

[197] G.O. MBAH, *The Role of Artificial Intelligence in Shaping Future Intellectual Property Law and Policy: Regulatory Challenges and Ethical Considerations*, in «Journal of Emerging Technologies and Innovative Research», 10(12), 2024, pp. 351-354.

[198] *Ibidem.*

assign authorship to the AI itself. As AI systems produce potentially patentable discoveries, pressure is now being placed on patent law. Both the USPTO and the European Patent Office (EPO) have dealt with cases in which artificial intelligence was identified as the inventor. Dr. Stephen Thaler listed DABUS, an AI system, as the inventor on two patent applications in the DABUS case. But in the end, the USPTO and EPO both denied the applications, concluding that human inventors are necessary for patents.

"The designation of an inventor is a fundamental legal requirement in European patent law", according to the EPO[199], and AI systems are unable to satisfy this requirement. An AI system called DABUS (Device for the Autonomous Bootstrapping of Unified Sentience) created two inventions on its own: a beverage container and a flashing light tool for search and rescue missions. This instance serves as a prime example of these difficulties. DABUS's developer, Dr. Stephen Thaler, claimed that DABUS created the concepts on its own and filed patent applications naming DABUS as the inventor. Nevertheless, the applications were denied by US, EU, and UK patent offices on the grounds that inventors must be human. According to the European Patent Office (EPO), AI systems cannot be acknowledged as inventors since the "designation of an inventor is a fundamental requirement under European patent law" (European Patent Office, 2020)[200]. Furthermore, there is a lack of responsibility. When AI systems[201]make judgments on their own, traditional legal frameworks struggle to assign liability, particularly when those decisions have negative consequences. The necessity for clear legal guidelines on AI accountability is highlighted by the possibility that this ambiguity will protect people and organizations from being held accountable for the activities of AI. There is also pressure on privacy legislation. The potential of generative AI to create synthetic data and deepfakes blurs the boundaries between data protection, identity rights, and permission. We need more powerful data governance laws because the privacy protections we currently have are insufficient to combat these new risks. To guarantee

[199] *Ibidem.*

[200] *Ibidem.*

[201] X.WANG, Y.C. WU, *Balancing Innovation and Regulation in the Age of Generative Artificial Intelligence*, in «Journal of Information Policy», 14, 2024.

[202]that AI research continues to benefit humanity, the legislation must clearly specify appropriate degrees of regulation based on the type of use. Operationally, we are protected from biases by the integrity of the programmer, which can result in discriminatory criteria ingrained in algorithm design. Ensuring that a machine has processed a large number of photos is insufficient to control the industry or lower the margin of error. Setting moral guidelines for technological advancement and ensuring ethical supervision of algorithms-which need to be developed with their intended use in mind while also taking context into consideration-are crucial. European rules for algorithm development based on common ethical principles may prove to be a useful tool for spreading European values and culture. The development of AI poses a unique issue for private economic company because, according to Article 41(2) of the Italian Constitution, systems must be safe, notably with regard to the protection of personal data, in order to comply with societal utility[203]. Accessibility of systems for all user types, particularly those who are not self-sufficient, disabled, or minors, is a component of respect for freedom and human dignity. It also includes preventing damage by using suitable risk assessment and management techniques to anticipate important events or establish backup plans to protect rights, such as fixing automated errors in decision-making. In the absence of a safety system similar to the one intended to prevent the wrongful exercise of public authority, the exponential transfer of important functions from public authorities to private operators who use algorithms and AI systems presents constitutional concerns. Private organizations are poised to gain infrastructure power-that is, control over access to necessary goods and services and the ability to sway public opinion-as a result of the existing delegation of significant duties and decision-making authority. Legislators must take action to guarantee that enforcement-related AI systems are routinely examined for bias and that remedial actions are taken when necessary. This might entail mandating that developers perform impact analyses for their AI systems, emphasizing the possibility of prejudice and how it affects IP law's fairness[204]. Furthermore, it is impossible to exaggerate the

---

[202] G.PIGNATARO, *La produzione intellettuale dell'IA generativa tra etica e diritto,* in «Diritto Pubblico Europeo-Rassegna online», 22(2), 2024.

[203] *Ibidem.*

importance of international cooperation among policymakers. Because AI technology crosses national boundaries, nations must cooperate to create uniform IP law norms and procedures. A worldwide framework for digital governance that takes AI and intellectual property rights into account should be developed through collaborative efforts, according to initiatives like the United Nations' planned worldwide Digital Compact. This kind of cooperation can lessen the legal ambiguities and inconsistencies brought up by various country approaches to AI regulation. To sum up, in order to handle the issues raised by AI in the framework of intellectual property law, legislators and regulatory agencies must take a proactive approach. Legislators may provide a strong legislative framework that safeguards intellectual property rights while supporting innovation and creativity by creating clear principles, encouraging ethical practices, tackling algorithmic bias, and boosting international collaboration[205]. A reactive legal approach is clearly no longer sufficient given the complex issues raised by the emergence of generative AI, which range from algorithmic bias and privacy concerns to accountability gaps and the altering power dynamics between public and private players. A proactive, morally sound, and globally standardized legal framework is crucial as generative AI continues to reshape the concepts of authorship, creativity, and accountability. In addition to reacting to technological advancement, the law must also foresee its effects and steer its course in a way that upholds democratic principles, safeguards fundamental rights, and guarantees that its advantages are widely available. This necessitates striking a careful balance between promoting innovation and defending the values of justice, openness, and human dignity. Intellectual property law, in particular, needs to change to support novel authoring models while preserving the incentives for human ingenuity. In a similar vein, new legal tools are required to guarantee accountability and fair treatment while addressing the opaque character of algorithmic decision-making. Legal standards play a crucial role in shaping the future of human-machine interaction in this quickly changing environment, fostering a model of technological advancement that is firmly centered on the needs of mankind.

---

[204] G.O. MBAH, *The Role of Artificial Intelligence in Shaping Future Intellectual Property Law and Policy: Regulatory Challenges and Ethical Considerations*, in «Journal of Emerging Technologies and Innovative Research», 10(12), 2024, pp. 351-354.

[205] *Ibidem.*

2.3 *How different jurisdictions tackle AI regulation*

The laws governing copyright for works produced by artificial intelligence vary from nation to nation. Given the growing use of generative AI systems, it is important to consider whether current regulatory frameworks can effectively handle the opportunities and risks associated with algorithmic innovation while preserving the right to free speech. This section aims to illustrate the considerable differences in the underlying philosophies and execution tactics of the three primary regulatory models: China, the United States, and the European Union. By using its strong legal and regulatory framework to influence worldwide norms on artificial intelligence[206], the EU occupies a unique position as a global norm-setter. But it is crucial it likewise looks inward, tackling the urgent issues raised by AI within its own boundaries with just as much vigor. For the EU to maintain its efficacy and credibility as a world leader in moral AI governance, this internal focus is essential. Strictly enforcing human rights and transparency norms in the use of AI across Member States should be at the core of the EU's policy; this includes a closer examination of how high-tech exports might be fostering algorithmic authoritarianism overseas. This is not only symbolic; it is a test of the EU's ability to successfully oversee European AI start-ups and manage the integration of AI into society. In addition to establishing a paradigm for global AI ethics, the EU guarantees that these technologies are in line with the fundamental principles of democracy and human dignity within its own borders by establishing and upholding strict internal norms. Additionally, the EU's regulatory approach, exemplified by programs like the AI Act, must aim to achieve two goals: first, to encourage technological innovation; and second, to enforce ethical compliance and place restrictions on the use of European technologies in oppressive contexts, either overseas or, in rare cases, within the EU. Finding this balance is essential to establishing a standard for the development and governance of AI in Europe and around the world. Notably, the majority of nations seeking to fully regulate AI are looking to the EU rather than the US as a model. It is important to recognize that the EU is becoming a global standard-setter. Unquestionably, the EU has shaped the global dialogue on AI, but it is as important that it tackle internal issues with a well-thought-out plan, particularly as

[206] H.A. ÜNVER, (2024). *Artificial Intelligence (AI) and Human Rights: Using AI as a weapon of repression and its impact on human rights*.

new AI technologies make it harder to distinguish between national security and freedom of speech. By doing this, the EU not only reaffirms its position as a pioneer in moral AI regulation, but it also makes sure that domestic technical developments align with its values of upholding human rights and advancing social well-being. Furthermore, it exhibits the political will and bravery to face its own inadequacies and conduct an honest self-evaluation. This bravery may ultimately be the most potent and long-lasting influence the EU can have in advancing the democratic use of AI in accordance with fundamental human rights, and it may also serve as inspiration for more sincere and principled regulation at the international level [207]. The proposed Generative AI Copyright Disclosure Act, which enters the ongoing legal debate and might have a substantial impact on the regulation of generative AI models, highlights the differences in the U.S. legal perspective [208]. The proposal's main component is the requirement that businesses provide the training data they use in their generative AI models, with retroactive effect, which includes data that is now on the market. Axel Springer in Germany, the Financial Times in the UK, and Le Monde in France are just a few of the major news organizations with which OpenAI has partnered in a number of countries as a result of lawsuits and proposed regulatory interventions. These partnerships aim to improve ChatGPT's response quality, achieve high standards of transparency and copyright compliance, and legally access content. This change might have consequences in Europe as well, including bringing about responsibilities that are currently explicitly controlled. As the body in charge of monitoring adherence to copyright law, the U.S. plan would appoint the U.S. Copyright Office as the designated authority for the disclosure of training data, even though the AI Act has already addressed the transparency requirement. In contrast, the European AI regulation requires that a sufficiently thorough summary of the training data be sent to the European AI Office. This office is responsible for ensuring that the data disclosure obligation-but not the copyright provisions-is being followed [209]. The practice of corporations that train models not always being the same as those that alter the training data is also acknowledged by the U.S. bill. Those that modify the training datasets must

[207] *Ibidem.*

[208] G.PIGNATARO, *La produzione intellettuale dell'IA generativa tra etica e diritto*, in «Diritto Pubblico Europeo-Rassegna online», 22(2), 2024.

[209] *Ibidem.*

also be held accountable for data integrity, even though the former are in charge of data selection and the training procedure. Unlike the European Regulation, which restricts the disclosure obligation to providers, this distinction expands the scope of liability. The U.S. provision's retroactive nature also tackles the intricate problem of what to do with billions of data points that have already been used. It also touches on machine unlearning, which is the technically difficult but crucial process of eliminating training data without affecting the AI model's performance. Generative AI is resistant to any kind of uniform or automatic regulatory response, as evidenced by the uniqueness of these problems and the fragmentation of suggested remedies[210]. Copyright protection in the US is specifically restricted to works written by human writers, meaning that content produced by artificial intelligence cannot be protected. Contrarily, the UK takes a more lenient stance, acknowledging that, under certain circumstances, some computer-generated works are protected by copyright. The UK method distinguishes between authorship and originality by identifying a human as the author of an AI-generated piece. "The AI created the original work, but the legal "author" is someone who did not contribute any creative elements to it". This conflicts with contemporary approaches to originality in broader copyright law, such as the US and EU doctrines, where authorship and innovation go hand in hand. To put it briefly, the majority of jurisdictions consider authorship and creativity to be inalienable to humans, hence preventing anyone other than humans from possessing copyright. The UK, on the other hand, views things differently, which is why they have a clause that permits computer-generated works to be protected by copyright. Even yet, the UK mandates that a person be identified as the author of the AI-generated work, even if the AI would have created the original[211]. This mechanism was heralded as "the first copyright legislation anywhere in the world which attempts to deal specifically with the advent of artificial intelligence[212]" when it was included in the Copyright, Designs and Patents Act 1988 (CDPA). The intention was to "allow investment in artificial intelligence

---

[210] *Ibidem.*

[211] H.A. ÜNVER, (2024). *Artificial Intelligence (AI) and Human Rights: Using AI as a weapon of repression and its impact on human rights*.

[212] A&O SHEARMAN, *Ownership of AI-generated content in the UK*, in «Aoshearman.com», 2024, disponibile online al link: https://www.aoshearman.com/en/insights/ownership-of-ai-generated-content-in-the-uk [ultimo accesso 6 maggio 2025].

systems, in the future, to be made with confidence" by bringing computer-generated works inside the purview of UK copyright protection. Although this was admirable and forward-thinking, the way it was implemented was problematic since the legislation failed to address the essential originality criteria. Additionally, it is unclear who is considered the copyright owner of AI-generated content and how this protection works in the context of today's autonomous AI systems[213]. It has publicly admitted that artificial intelligence is driving a new technology revolution that is just getting started. The UK government claims that artificial intelligence (AI) has the ability to revolutionize our era in the same way that the steam-powered economy did in the 1800s. According to this definition, artificial intelligence is a collection of sophisticated, all-purpose digital technologies that allow machines to efficiently do extremely complicated jobs. The UK government has actively supported the expansion of its AI sector in keeping with this goal. In addition to making large financial investments in the field, it has also commissioned several studies to examine the advancement and real-world uses of AI technologies. The introduction of a nationwide consultation by then-Prime Minister Theresa May as part of the "Modern Industrial Strategy" in early 2017 marked a significant turning point. A White Paper outlining the UK's long-term strategy for AI, which included large investments in science, research, and innovation, was released as the initiative's result. One of the four "Grand Challenges" of the strategy was robotics and artificial intelligence. In order to further solidify the UK's standing as a world leader in the advancement of AI technology, the government implemented a "Artificial Intelligence Sector Deal"[214].

These projects were also driven by great economic aspirations. According to official projections, the development of AI may boost the UK's GDP by 10.3%, or about £232 billion (about US$300 billion). The 2017 national budget included £75 million (about US$96 million) set aside expressly for artificial intelligence (AI) as part of targeted investments in "industries of the future". With assistance from the Department for Business, Energy, and Industrial Strategy, the Department for Digital, Culture, Media, and Sport is in charge of developing policies and supervising the AI industry. A special

---

[213] *Ibidem.*

[214] J. GESLEY, T. AHMAD, E. SOARES, R. LEVUSH, G. GUERRA, J. MARTIN et al (*H. Goitom*), *Regulation of Artificial Intelligence in Selected Jurisdictions*, 2019.

committee was also formed by the House of Lords in June 2017 with the responsibility of investigating the social, ethical, and economic ramifications of AI developments. A few months later, in November, the House of Commons began an investigation into how algorithms are used in decision-making and public administration. The results demonstrated algorithmic systems' enormous potential, but they also underlined the necessity of careful observation to control their social impact[215]. A nation's technology sector can be stimulated by investment in cutting-edge AI technologies, which could have positive economic effects. governments can establish themselves as market leaders and export these technologies to other governments by leading the way in AI-driven surveillance. Countries with sizable populations, like India, offer sizable consumer bases and, consequently, sizable revenue streams[216]. In addition to tackling the ethical issues raised by this technology, India is steadfastly constructing a comprehensive framework for AI that complements its larger objectives for the digital economy. India has made a number of efforts to establish and regulate AI policies both domestically and internationally, despite the fact that it is still in the early phases of determining its impact on worldwide AI standards. The government's primary public policy think tank, the National Institution for Transforming India (NITI Aayog), launched one significant initiative in 2018. It explored the ethical, legal, and social ramifications of AI in India in its discussion paper "AIforAll: Harnessing AI for Inclusive Growth". The establishment of an Ethics Committee to oversee the proper application of AI was one of its recommendations. This document provides a crucial foundation for forming India's AI governance plan, even though it lacks legal force. The Draft Personal Data Protection Bill is another noteworthy development that draws inspiration from the General Data Protection Regulation (GDPR) of the European Union[217]. Important ideas like informed consent, data minimization, and individual rights with regard to automated decision-making are all included in this measure. These guidelines are essential for guaranteeing the moral and appropriate use of AI systems that handle personal data, even if the bill is primarily focused on data protection. A National AI Mission was also suggested by an AI

[215] *Ibidem.*

[216] H.A. ÜNVER, (2024). *Artificial Intelligence (AI) and Human Rights: Using AI as a weapon of repression and its impact on human rights*.

[217] *Ibidem.*

task force that was established by the Ministry of Commerce and Industry. This interministerial organization would be in charge of creating and implementing AI-specific legal, ethical, and regulatory frameworks. Although there isn't yet a specific AI law in India, laws like the Information Technology Act of 2000 offer a partial legal basis, especially when it comes to data processing and online transactions[218]. India is actively taking part in international forums, such the G20 Digital Economy Task Force, where AI standards are being developed. The nation has also worked with the Centre for the Fourth Industrial Revolution of the World Economic Forum to jointly develop regulations pertaining to data use and artificial intelligence. India has participated in projects such as the Global Partnership on Artificial Intelligence (GPAI), where it shares its knowledge and helps mold ethical AI practices globally, and it promotes a multi-stakeholder approach to AI governance. Another important factor has been bilateral cooperation. India has discussed artificial intelligence (AI) with major international actors like China, the US, the EU, and technologically advanced countries like South Korea and Japan.

Through a more open and inclusive digital economy, these collaborations hope to foster innovation and economic progress in addition to advancing common understandings of ethical AI[219]. When talking about international approaches to artificial intelligence, [220]Canada is another fascinating nation to consider. Canada's AI strategy has mostly focused on funding research and developing expertise, in contrast to many other countries that have prioritized legislation and governance. In actuality, Canada has established itself as a world leader in artificial intelligence and is home to the second-largest IT sector outside of Silicon Valley. It was predicted that Canadian AI startups would raise more than $250 million in funding in 2017, which would nearly quadruple the previous record of $143 million achieved in 2015. With the help of CA$125 million (about US$93.3 million) from the federal budget, Canada became the first nation in the world to introduce a national AI plan that same year. This initiative was called the Pan-Canadian Artificial Intelligence plan. Even though the policy is mostly focused on research and talent

---

[218] *Ibidem.*

[219] *Ibidem.*

[220] J. GESLEY, T. AHMAD, E. SOARES, R. LEVUSH, G. GUERRA, J. MARTIN et al (*H. Goitom*), *Regulation of Artificial Intelligence in Selected Jurisdictions*, 2019.

development rather than the construction of a comprehensive legislative framework, this endeavor represented a significant step in defining the nation's AI ecosystem. In partnership with three major AI research centers-the Vector Institute in Toronto, Mila in Montreal, and the Alberta Machine Intelligence Institute (Amii) in Edmonton-the Canadian Institute for Advanced Research (CIFAR), a nonprofit research institute with some government funding, is spearheading the strategy[221]. Its objectives include building a network of excellence linking Canada's three main AI hubs, increasing the number of exceptional AI researchers and graduates, creating global thought leadership on the economic, ethical, legal, and policy aspects of AI, and cultivating a robust domestic research community. In an effort to better link innovation with social values, CIFAR has also launched the AI and Society Program, which focuses on the ethical and policy implications of artificial intelligence. Despite these successes, new assessments indicate that Canada might be lagging behind other countries when it comes to the practical and business applications of AI technologies. For instance, Deloitte has noted that although Canada's talent pool and startup environment for AI are still robust, the nation is having difficulty creating enough domestic demand for AI solutions, which is essential for a flourishing AI economy[222] .Furthermore, despite continuous government support in the field, a report published by The Logic observed a decrease in AI patent applications from Canadian companies since 2016. In conclusion, Canada offers a convincing illustration of a research-driven strategy for AI development that places a high value on talent, ethics, and teamwork. Making ensuring that this solid basis results in significant acceptance and worldwide competitiveness in the use of AI technology will be its next challenge, though[223]. The international level [224]is another intriguing jurisdiction to take into account when looking at artificial intelligence regulation. While it lacks legally binding authority, global organizations are essential in establishing common values and directing the creation of national and international frameworks. For example, the UN actively supports

---

[221] *Ibidem.*

[222] *Ibidem.*

[223] *Ibidem.*

[224] H.A. ÜNVER, (2024). *Artificial Intelligence (AI) and Human Rights: Using AI as a weapon of repression and its impact on human rights*.

global governance through programs that encourage communication, moral leadership, and the defense of human rights, but it does not explicitly regulate AI through legally binding instruments. As mentioned before, the first international normative framework on AI ethics is UNESCO's 2021 Recommendation on the Ethics of Artificial Intelligence. It promotes AI systems that are inclusive and considerate of cultural diversity by highlighting important values including accountability, transparency, nondiscrimination, and the preservation of human dignity. Although it is not legally binding, the Recommendation has impacted national policy decisions and is a global benchmark for moral behavior. The global AI environment is also being shaped by other UN agencies. Through programs like AI for Good, the International Telecommunication Union (ITU) develops technological standards and policies, while the UN Global Pulse focuses on using AI to humanitarian and sustainable development, paying special attention to data ethics [225]. The interim study Governing AI for Humanity, published in 2023 by the UN Secretary-General's Advisory Body, suggested a number of fundamental duties for global AI governance, such as risk assessment, coordination, and fair participation in decision-making. The OECD has taken the lead in establishing AI policy principles to support the UN's efforts. The first intergovernmental norm for reliable AI, the OECD Principles on AI, was adopted in 2019 and later supported by the G20. These guidelines support AI that is creative, focused on people, and considerate of democratic ideals. To promote global collaboration and policy coherence, the OECD also established the AI Policy Observatory, a platform that gathers and evaluates information on national AI initiatives, ethical frameworks, and regulatory methods[226]. Despite not being a UN body, the Global Partnership on Artificial Intelligence (GPAI) is an important multinational initiative that supports these objectives. Through thematic working groups, GPAI, which is hosted by the OECD and backed by the UN, brings together professionals from governments, academia, industry, and civil society to discuss the socio-technical issues surrounding AI. Its emphasis on human-centered and responsible AI, particularly in light of the Sustainable Development Goals (SDGs), demonstrates its dedication to the development of AI that is both ethically sound and inclusive of all people worldwide. Despite their

[225] *Ibidem.*

[226] *Ibidem.*

significance, all of these international frameworks have one thing in common: they are not legally enforceable. Their efficacy is largely dependent on the institutional capabilities, political will, and financial resources of member states in the absence of enforcement mechanisms. Global representation, the operationalization of abstract concepts into specific regulations, and the quick speed of AI development-which runs the risk of surpassing regulatory reactions-remain obstacles. However, by establishing the foundation for future, more coordinated, and even legally enforceable forms of international AI governance, these projects play a crucial role in forming a global normative ecology for AI[227]. To conclude, the regulatory environment around AI-generated works around the world, especially with regard to copyright, is a complicated and dynamic patchwork of legal customs, technological goals, and normative objectives. Other jurisdictions including the United States, the United Kingdom, India, and Canada are developing unique ways based on their legal cultures and economic plans, while the European Union is becoming a worldwide norm-setter with its strong AI Act and emphasis on human rights. At the same time, international organizations are establishing moral guidelines that provide important benchmarks for domestic regulation, even though they are not legally enforceable. Yet, no single jurisdiction has to offer a comprehensive or conclusive answer to the problems presented by generative AI, despite the growing agreement around the need for transparency, accountability, and justice. In the era of robots, copyright law in particular is still struggling with basic issues of authorship, originality, and human creativity.

The need for flexible, inclusive, and rights-based governance is growing as AI technologies make it harder to distinguish between human and non-human creation. In addition to legal creativity, international collaboration, political will, and a common dedication to preserving both innovation and fundamental liberties will be necessary for the future of AI governance. The road to a sustainable and moral AI environment must be constructed within this fine balance.

[227] *Ibidem.*

2.4: *The European regulatory approach: Balancing innovation and legal safeguards*

In addition to position statements, the EU is the first to establish legally enforceable AI legislation and continues to serve as a source of "best practices" for numerous other countries attempting to develop their own national AI policies[228].

As a corollary of the constitutional principle of subsidiarity, the European Union intends to regulate technology and define its own digital future strategy through a series of regulations that streamline the application of general administrative action principles to private entities performing public functions[229].Leading and taking part in multilateral talks to create a shared ethical framework for AI is part of the EU's approach to developing international standards. This is demonstrated by the EU's strong participation in international organizations like the UN, where it endorses resolutions and writes reports that influence the conversation around artificial intelligence. But reaching a consensus is a difficult task that necessitates balancing disparate national interests and policies. The EU works with other nations through bilateral and multilateral diplomacy to encourage adherence to moral principles in the creation and application of AI. The EU's international cooperation agreements and foreign policy discussions, which frequently contain clauses pertaining to human rights and digital governance, are examples of this diplomatic engagement [230]. To promote conversations on AI ethics, the EU first serves as a leader and convener in international fora. This includes taking an active involvement in the UN, G7, G20, and other multilateral organizations where it may use its diplomatic clout to start and direct international discussions about the responsible application of AI. The EU helps establish international standards that define moral AI use by putting forward resolutions and guiding concepts. Second, the EU backs the efforts of specialized

---

[228] H.A. ÜNVER, (2024). *Artificial Intelligence (AI) and Human Rights: Using AI as a weapon of repression and its impact on human rights*.

[229] G.PIGNATARO, *La produzione intellettuale dell'IA generativa tra etica e diritto*, in «Diritto Pubblico Europeo-Rassegna online», 22(2), 2024.

[230] H.A. ÜNVER, (2024). *Artificial Intelligence (AI) and Human Rights: Using AI as a weapon of repression and its impact on human rights*.

organizations like UNESCO that have been researching the moral implications of artificial intelligence. The EU works with these organizations to create and advance moral standards that are consistent with its own principles of democracy, the rule of law, and human rights. This includes supporting projects that seek to establish a globally accepted set of guidelines and standards that control the creation and application of AI. Thirdly, the EU uses its trade and cooperation agreements as a conduit for its efforts to establish norms. The EU conditionally ties economic cooperation to the observance of specific AI governance norms by including provisions pertaining to digital rights and AI ethics in these agreements. In addition to encouraging moral AI activities, this also pushes trading partners to adopt comparable frameworks. Additionally, the EU supports the creation of an international regulatory framework for AI that incorporates monitoring, accountability, and transparency measures. [231]This approach may establish guidelines for AI audits, protect data, and prevent algorithmic biases-all of which are important concerns in the struggle against oppressive AI applications. Furthermore, the EU may set an example by carrying on with the development and improvement of its own AI regulatory framework. For instance, the AI Act is a bold attempt to establish guidelines for reliable AI in the EU. Last but not least, the EU might endeavor to form alliances of nations that share its principles and uphold human rights and democracy online. In order to create a critical mass that could tilt the scales in favor of democratic and moral AI use globally, these coalitions could act as blocs that support and advocate for the adoption of ethical AI standards in international norm-setting bodies. The EU has established itself as a prominent advocate for the creation of strong regulatory frameworks for AI that give human rights, ethics, and security top priority[232]. Given that American and Chinese regulatory frameworks are becoming more and more challenging to adopt due to their high resource and capacity requirements, the EU offers many nations looking to develop a regulatory environment and a national AI policy a baseline. Furthermore, in terms of human rights, even US regulations are falling short of EU standards. The latter's approach to AI legislation places a strong focus on the necessity of accountability, transparency, and the protection of basic rights. This legislative stance has wider ramifications for

[231] *Ibidem.*

[232] *Ibidem.*

international norms and standards in addition to influencing AI development within EU member states[233]. The recently proposed AI Act[234], which seeks to establish a thorough legal framework for AI, is at the heart of the EU's regulatory approach. With this risk-based approach, AI systems are categorized according to their possible dangers, and high-risk applications are subject to stringent criteria. On December 8, 2023, members of the European Union reached a tentative agreement on the EU AI Act. This legislative measure aims to control the use of artificial intelligence (AI) systems in EU member states and to regulate the main AI-enabled systems in the region. EU industry director Thierry Breton stated on February 2, 2024, "Today member states endorsed the political agreement reached in December, recognizing the perfect balance found by the negotiators between innovation and safety"[235]. With an emphasis on outlawing high-risk applications that can violate individual or collective rights, this legislation classifies AI applications according to their danger to citizens' safety and rights. The EU aims to guarantee that AI technologies are reliable and consistent with both legal requirements and EU principles by establishing explicit guidelines and requirements for high-risk AI systems[236]. As mentioned at the beginning of this Chapter, Article 3 of the AI Act [237]describes an AI system as "a machine-based system designed to operate with varying levels of autonomy and that may exhibit adaptiveness after deployment and that, for explicit or implicit objectives, infers, from the input it receives, how to generate outputs such as predictions, content, recommendations, or decisions"[238]. In order to subject generative AI and other machine-based learning technologies to legal duties commensurate with their potential risks, this definition is essential because it expands the regulatory reach. The Act

---

[233] *Ibidem.*

[234] X.WANG, Y.C. WU, *Balancing Innovation and Regulation in the Age of Generative Artificial Intelligence*, in «Journal of Information Policy», 14, 2024.

[235] A. ADEDOKUN, *Global AI Regulatory Landscape: Challenges, Trends, and Future Outlook*, 29 febbraio 2024.

[236] H.A. ÜNVER, (2024). *Artificial Intelligence (AI) and Human Rights: Using AI as a weapon of repression and its impact on human rights*.

[237] ARTIFICIAL INTELLIGENCE ACT (Regulation (EU) 2024/1689), Official Journal version of 13 June 2024'. *Interinstitutional File: 2021/0106(COD)*

[238] *Ibidem.*

essentially classifies AI systems according to the degree of risk they pose, ranging from negligible to intolerable risk, to strike a balance between the economic promise of AI and the need to safeguard fundamental rights and safety. This risk-based strategy finds a regulation in article 5 [239]of the AI Act which affirms the prohibition of the following AI practices:

« 1. the placing on the market[240], the putting into service or the use of an AI system that deploys subliminal techniques beyond a person's consciousness or purposefully manipulative or deceptive techniques, with the objective, or the effect of materially distorting the behavior of a person or a group of persons by appreciably impairing their ability to make an informed decision, thereby causing them to take a decision that they would not have otherwise taken in a manner that causes or is reasonably likely to cause that person, another person or group of persons significant harm;

2. the placing on the market, the putting into service or the use of an AI system that exploits any of the vulnerabilities of a natural person or a specific group of persons due to their age, disability or a specific social or economic situation, with the objective, or the effect, of materially distorting the behavior of that person or a person belonging to that group in a manner that causes or is reasonably likely to cause that person or another person significant harm;

3. the placing on the market, the putting into service or the use of AI systems for the evaluation or classification of natural persons or groups of persons over a certain period of time based on their social behavior or known, inferred or predicted personal or personality characteristics, with the social score leading to either or both of the following:

(i) detrimental or unfavorable treatment of certain natural persons or groups of persons in social contexts that are unrelated to the contexts in which the data was originally generated or collected;

---

[239] *Ibidem.*

[240] ARTIFICIAL INTELLIGENCE ACT (Regulation (EU) 2024/1689), Official Journal version of 13 June 2024'. *Interinstitutional File: 2021/0106(COD)*

(ii) detrimental or unfavorable treatment of certain natural persons or groups of persons that is unjustified or disproportionate to their social behavior or its gravity;

4. the placing on the market, the putting into service for this specific purpose, or the use of an AI system for making risk assessments of natural persons in order to assess or predict the risk of a natural person committing a criminal offence, based solely on the profiling of a natural person or on assessing their personality traits and characteristics; this prohibition shall not apply to AI systems used to support the human assessment of the involvement of a person in a criminal activity, which is already based on objective and verifiable facts directly linked to a criminal activity;

5. the placing on the market[241], the putting into service for this specific purpose, or the use of AI systems that create or expand facial recognition databases through the untargeted scraping of facial images from the internet or CCTV footage;

6. the placing on the market, the putting into service for this specific purpose, or the use of AI systems to infer emotions of a natural person in the areas of workplace and education institutions, except where the use of the AI system is intended to be put in place or into the market for medical or safety reasons;

7. the placing on the market, the putting into service for this specific purpose, or the use of biometric categorization systems that categorize individually natural persons based on their biometric data to deduce or infer their race, political opinions, trade union membership, religious or philosophical beliefs, sex life or sexual orientation; this prohibition does not cover any labelling or filtering of lawfully acquired biometric datasets, such as images, based on biometric data or categorizing of biometric data in the area of law enforcement;

8. the use of 'real-time' remote biometric identification systems in publicly accessible spaces for the purposes of law enforcement, unless and in so far as such use is strictly necessary for one of the following objectives:

[241] ARTIFICIAL INTELLIGENCE ACT (Regulation (EU) 2024/1689), Official Journal version of 13 June 2024'. *Interinstitutional File: 2021/0106(COD)*

(i) the targeted search for specific victims of abduction, trafficking in human beings or sexual exploitation of human beings, as well as the search for missing persons;

(ii) the prevention of a specific, substantial and imminent threat to the life or physical safety of natural persons or a genuine and present or genuine and foreseeable threat of a terrorist attack;

(iii) the localization or identification of a person suspected of having committed a criminal offence, for the purpose of conducting a criminal investigation or prosecution or executing a criminal penalty for offences and punishable in the Member State concerned by a custodial sentence or a detention order for a maximum period of at least four years. Point (h) of the first subparagraph is without prejudice to Article 9 of Regulation (EU) 2016/679 for the processing of biometric data for purposes other than law enforcement[242].” This latter strategy is essential because it enables a customized regulatory response, guaranteeing that less dangerous AI systems encounter fewer regulatory obstacles while high-risk AI systems are subject to more stringent controls and regulations as it is described by Article 6 of the Act»[243].

This prevents overregulation from stifling innovation and protects against the misuse of AI in crucial fields. The Act imposes stringent compliance requirements on high-risk AI applications, such as those that affect public health, security, or legal or democratic processes. These include establishing strict guidelines for data quality, making sure AI systems are transparent and traceable, and putting strong human monitoring in place to stop poor choices. The goal[244]is to guarantee that AI systems are trustworthy, safe, and uphold fundamental rights like nondiscrimination and privacy. Additionally, the Act forbids some AI techniques that are thought to provide an intolerable risk, such as government “social scoring systems or systems that alter human behavior to go around users ’free will”[245]. Transparency is also emphasized by Article 52 EU AI Act which

[242] ARTIFICIAL INTELLIGENCE ACT (Regulation (EU) 2024/1689), Official Journal version of 13 June 2024’. *Interinstitutional File: 2021/0106(COD)*

[243] *Ibidem.*

[244] H.A. ÜNVER, (2024). *Artificial Intelligence (AI) and Human Rights: Using AI as a weapon of repression and its impact on human rights*.

[245] *Ibidem.*

establishes transparency requirements for AI systems that communicate with people, such as generative AI, mandating that users be made aware that the content was produced by AI. The distinction between human and machine-generated content has ethical and legal ramifications, making it particularly pertinent in the context of the creative industries and freedom of expression[246]. To provide a complete and uniformly binding legal framework throughout the Union, the European Commission's proposal for the AI Act represents a groundbreaking turning point in the field of AI regulation[247]. This ambitious endeavor, which addresses the complex use of AI systems and the various risks they bring, is the first of its kind to try a horizontal regulation of AI. With the goal of allowing for a broad range of AI approaches and uses, the Act suggests a technology-neutral definition of AI systems under EU law. This inclusion is essential to guaranteeing that the regulation is applicable and relevant despite the rapidly changing AI technology ecosystem. The Act's risk-based classification system, lies at the heart of the legislation[248]. Because of this stratification, regulatory actions can be customized to ensure those systems with the highest potential for harm receive the strictest regulations. The Act imposes stringent compliance standards before to market introduction for AI systems classified as "high-risk", including: strong risk management and data governance protocols; operational transparency; and human monitoring methods. This focus on pre-market assessment is essential for reducing threats to user safety and basic rights. On the other hand, the Act expressly forbids AI systems that pose "unacceptable" dangers, such as those that use deceptive subliminal tactics or take advantage of security flaws. This audacious move shows a dedication to preserving moral AI norms and safeguarding the general welfare. Following the December 2023 tentative agreement on the regulation, a number of objections were made, centered on five main points[249]. First, the Act's wide breadth makes implementation extremely difficult. Robust and flexible regulatory methods are necessary

---

[246] AA. VV., *Artificial Intelligence Act: come garantire la trasparenza*, in «Ai4business.it», 2023. disponibile online al link: https://www.ai4business.it/intelligenza-artificiale/artificial-intelligence-act-come-garantire-la-trasparenza/ [ultimo accesso 6 maggio 2025].

[247] H.A. ÜNVER, (2024). *Artificial Intelligence (AI) and Human Rights: Using AI as a weapon of repression and its impact on human rights*.

[248] *Ibidem.*

[249] *Ibidem.*

to ensure compliance across a variety of AI applications, each with distinct technical features and possible hazards. The speed at which AI is developing adds to this complexity and puts legal frameworks' flexibility to the test on a regular basis. Second, the Act may have a major "Brussels Effect" on the world's AI markets due to the EU's economic influence. It may be more feasible for businesses outside the EU, particularly those hoping to enter its market, to align their AI products with EU standards. This could result in a de facto worldwide standardization of AI development and application. Analysis and outside experts indicate that this influence extends to the Act's safety and ethical standards, which could improve AI practices worldwide. Third, finding a balance between encouraging AI innovation and guaranteeing regulatory monitoring is a crucial task for the Act. While lax regulations may not effectively address the hazards posed by AI, excessively strict restrictions run the risk of inhibiting technological innovation. Maintaining the EU's competitiveness in the global AI market while upholding moral and safety standards requires this delicate balancing act. Fourth, the Act aims to harmonize AI laws across the European Union. However, because different nations may adopt different standards, it could lead to a fragmented worldwide regulatory landscape for AI. For global AI developers and consumers working in various jurisdictions, this discrepancy presents difficulties. Last but not least, the Act's inclusive ideals and broad phrasing permit a great deal of variation in interpretation and implementation. The goal of establishing a single legislative framework may be jeopardized if this diversity results in uneven AI governance procedures throughout the EU[250]. All things considered, the proposed EU AI Act is a revolutionary step in the direction of creating a unified regulatory framework for AI. Its efficacy, however, depends on how well regulations and technological innovation are balanced, how well it can adjust to the quick advances in AI, and how it affects international AI markets and practices. Positively, the Act's approach to AI governance, which places a high priority on safety, fundamental rights, and ethical standards, establishes a possible framework that may have an impact on how AI technologies are developed and used around the world, influencing the course of AI innovation and its integration into society. Additionally, the EU has the institutional capacity to address some of the early complaints of the Act and can draw on a wide range

[250] *Ibidem.*

of experience to address some of the early regulatory issues that may come up[251]. By requiring notifications for chatbot interactions, deepfake labeling, and recognizable AI-generated content, the Act establishes required requirements for transparency[252] .This is more stringent than AI businesses' voluntary pledges, and it applies to critical service providers (banking, insurance) who must do impact analyses on fundamental rights. By mandating improved documentation, copyright compliance, and data source disclosure, the Act governs "foundation models"—strong, adaptable models. The most potent models (those ranked by training power) are subject to stricter regulations, which include energy efficiency, security, and openness on the methods used to arrive at results. Businesses evaluate their own model classification, which may allow strong models like GPT-4 and Gemini to evade more stringent regulations[253]. The Act positions the EU as a possible "go-to" digital regulator with worldwide clout and creates a new European AI Office for enforcement. The EU may end up being the primary location for citizen complaints and explanations on AI choices, and the penalties for non-compliance are severe (1.5%–7% of worldwide sales). Since businesses looking to enter the EU market must abide by the Act, it may eventually become a global standard similar to GDPR[254].

The latter and the stringent enforcement by data protection authorities of the anonymization of personal data, its portability, the opportunity to negotiate profiling, and the respect for informed permission pose a first obstacle to the overwhelming power of platforms. However, with AI systems constantly evolving, it is more challenging to guarantee data fairness and accuracy[255]. Although it is not specifically related to AI, the General Data Protection Regulation of the EU is a major component of the governance environment for AI. This regulation's primary focus is on safeguarding personal data, which is a significant source of information for AI. It requires that any data used in

---

[251] *Ibidem.*

[252] A. ADEDOKUN, *Global AI Regulatory Landscape: Challenges, Trends, and Future Outlook*, 29 febbraio 2024.

[253] *Ibidem.*

[254] *Ibidem.*

[255] G.PIGNATARO, *La produzione intellettuale dell'IA generativa tra etica e diritto*, in «Diritto Pubblico Europeo-Rassegna online», 22(2), 2024.

applications be treated legally, openly, and for justifiable reasons. This criterion guarantees that AI systems adhere to data security and user privacy guidelines. According to the GDPR, processing personal data requires express consent. This implies that people must be aware of AI and give their agreement before their data is used in AI models. In order to promote transparency regarding the use of personal data, this consent must be freely provided, explicit, informed, and unambiguous[256]. It went into effect on May 25, 2018, and all EU member states are directly covered by it without the requirement for implementing legislation. Among other rights[257], the GDPR ensures that an actual person, not a computer, makes or reviews decisions that are based only on automated processing (an algorithm). The state of the art, implementation costs, and the nature, scope, context, and purposes of the processing, along with the risks involved, must now be considered by controllers due to the combined interpretation of Articles 5(2) ("accountability"), 24(1) ("responsibility"), and 25(1) ("data protection by design"). To guarantee and prove adherence to the Regulation, they should put in place the proper organizational and technical measures both before deciding on the processing methods and when the processing is actually carried out. They must, in other words, behave responsibly from the beginning of the design process to the end of the data processing lifecycle. Risks specific to data protection are typically covered in a DPIA, which should at the very least include an inventory of the risks and related mitigation techniques, a thorough description of the pertinent processing activities, and an evaluation of their necessity and proportionality. Even if a DPIA is brief, it is still regarded as best practice for all controllers, regardless of risk level, even if Article 35(1) requires controllers to perform one for processing activities that are "likely to result in a high risk for rights and freedoms of natural persons"[258]. However, it is a sensitive task to balance the inherent features of AI systems with the guiding principles and regulations. for two reasons. In the first place, the GDPR was designed to be a technology-neutral law with freely ambiguous clauses

---

[256] H.A. ÜNVER, (2024). *Artificial Intelligence (AI) and Human Rights: Using AI as a weapon of repression and its impact on human rights*.

[257] J.GESLEY, T. AHMAD, E. SOARES, R. LEVUSH, G. GUERRA, J. MARTIN, ... &H. GOITOM (2019). *Regulation of artificial intelligence in selected jurisdictions.*

[258] N.A. SMUHA (a cura di), *The Cambridge Handbook of the Law, Ethics and Policy of Artificial Intelligence*, Cambridge University Press, Cambridge, 2025.

that would have the same normative significance in any technological setting. At a time when technology advancements have significantly exceeded regulators' ability to keep up with the unchecked speed of innovation, this is the trade-off required to assure resilience and future-proofness. Navigating that environment, which is made up of several tiers of regulations intended to balance legal clarity and flexibility, may be especially difficult. Second, the complexity of AI systems has increased to the point that people are more concerned about how opaque their reasoning is. This emphasizes the necessity of interdisciplinary cooperation since accurate legal application depends on a thorough grasp of how they operate. To put it briefly, controlling how personal data is processed by AI systems necessitates interpreting and applying a flexible legislative framework to ever-more sophisticated technological developments. This alone requires striking a balance between ensuring a safe environment for innovation to flourish and defending people's fundamental rights[259]. The European Ethical Charter on the Use of Artificial Intelligence in Judicial Systems and Their Environment [260](European Ethical Charter) was adopted on December 4, 2018, by the European Commission for the Efficiency of Justice of the Council of Europe (CoE), an international human rights organization made up of 47 European nations. Five ethical principles are outlined in the European Ethical Charter, which is meant to act as a guide for lawmakers, policymakers, and justice experts when it comes to AI. The document also reviews the various applications of AI in European judicial systems in light of the principles outlined in the European Ethical Charter and offers a thorough overview of the current use of AI in judicial systems in CoE Member States, with an emphasis on processing judicial decisions and data. The following guidelines ought to be followed: Transparency, impartiality, and fairness; nondiscrimination; quality and security when processing court rulings and data; respect for fundamental rights during the design and implementation of AI; and "Under user control". Furthermore, a number of draft materials on the consequences of AI use for human rights have been released by the CoE's Committee of Experts on Human Rights Dimensions of Automated Data Processing and Different Forms of Artificial Intelligence

[259] *Ibidem.*

[260] J.GESLEY, T. AHMAD, E. SOARES, R. LEVUSH, G. GUERRA, J. MARTIN, ... &H. GOITOM (2019). *Regulation of artificial intelligence in selected jurisdictions.*

(MSI-AUT). In addition to offering guidance for future standard-setting, the studies and recommendations urge CoE Member States to follow the guidelines when addressing legislative matters in this area and to take all necessary steps to guarantee that private actors uphold human rights when creating and developing artificial intelligence [261] .The following documents are currently accessible through the MSI-AUT:
1. The Committee of Ministers 'draft recommendation to member states on the effects of algorithmic systems on human rights;

2. An analysis of the implications of advanced digital technologies, including AI systems, for the idea of responsibility within a human rights framework
3. The Committee of Ministers' Draft Declaration on the Manipulative Potential of Algorithmic Processes.

A Framework Convention on Artificial Intelligence, Human Rights, Democracy, and the Rule of Law is presently being developed by the Council of Europe (CoE) through its Committee on Artificial Intelligence (CAI). The purpose of this agreement is to guarantee that the application of AI systems conforms to the standards set forth by the Council. The main goal is to make sure that the use of AI systems doesn't jeopardize human rights or directly or indirectly threaten democratic processes. The Council of Europe's work and objectives suggest a concern for avoiding AI systems from being used in ways that potentially violate human rights or democratic norms, even though it does not explicitly define "AI-driven repression"[262]. This concerns the possibility that AI will be applied to information manipulation, monitoring, or other activities that can oppress or unduly influence the populace in a democracy. It emphasizes how crucial it is for AI applications to be transparent, accountable, and nondiscriminatory, and that these systems shouldn't be used as tools for undemocratic control or the maintenance of inequality[263]. Additionally, the High-Level Expert Group on AI created the Ethics Guidelines for Trustworthy AI for the EU. Key criteria for reliable AI are outlined in these standards, including respect for human autonomy, damage reduction, justice, and explicability.

---

[261] *Ibidem.*

[262] H.A. ÜNVER, (2024). *Artificial Intelligence (AI) and Human Rights: Using AI as a weapon of repression and its impact on human rights*.

[263] *Ibidem.*

These guidelines set the standard for AI development and could influence global conversations about moral AI. Through initiatives like Horizon Europe, the EU is supporting research that complies with its ethical standards in order to supplement rules with current scientific findings. This is creating an innovative environment that supports the advancement of artificial intelligence and is consistent with the EU's regulatory philosophy [264]. The standards incorporate ethical considerations into the design and implementation of AI. These rules are important and norm-setting on a worldwide scale, guaranteeing that AI systems are not only technically advanced but also compliant with core moral standards. First of all, they have played a significant role in changing the conversation around AI from one that is primarily technical to one that is ethically based. These principles have encouraged organizations and developers in the EU and worldwide to include ethical considerations at every stage of an AI system's lifetime by promoting AI that is resilient, ethical, and legal. They have an impact on policymaking as well, offering EU member states a model to help them develop their own national AI initiatives. They have also had a big influence on the corporate world, helping businesses create ethical AI procedures and cultivating an ethical AI culture within the industry[265]. By addressing the issues of transparency, prejudice, and fairness as well as the possibility that AI systems could reinforce current societal imbalances, these guidelines acknowledge the wide range of dangers and challenges related to AI. In order to reduce the risks of dehumanization, the recommendations place a strong emphasis on human agency and oversight, ensuring that AI systems complement human decision-making rather than replace it. Moreover, through programs like the Digital Europe Programme, which seeks to promote the digital transformation of Europe's economy and society, the EU is attempting to increase capacity and exchange knowledge. In order to foster a competitive and technologically proficient EU that can lead the global dialogue on AI governance, it offers funding for high-performance computing, artificial intelligence, cybersecurity, and advanced digital skills. The EU is committed to creating an environment where AI benefits society while upholding democratic values, as seen by its complete approach to AI governance, which combines ethical guidelines, research and

---

[264] *Ibidem.*

[265] *Ibidem.*

innovation support, regulatory measures, and international cooperation. In addition to influencing the domestic market, this proactive approach establishes a standard that affects worldwide legislative initiatives and AI technology governance. The European Commission and Member States will work together to coordinate policies to boost AI investment and innovation while maintaining trust and respect for human rights, according to the amended 2021 Coordinated Plan on AI. It lays forth specific steps for working together to shape international standards through bilateral and multilateral partnerships[266]. In conclusion, the European Union is uniquely positioned to act as a worldwide "norm-setter", influencing the creation of international standards for artificial intelligence by utilizing its extensive legal and regulatory framework. But in order to effectively address the urgent issues raised by AI within its own Member States, this external leadership needs to be complemented by an equally strong internal commitment. The EU must guarantee rigorous adherence to human rights and transparency standards in the domestic deployment of AI systems if it is to preserve its reputation as a leader in ethical AI regulation. A critical analysis of how European high-tech exports might be supporting algorithmic authoritarianism abroad is also included. This internal accountability is not only symbolic; rather, it is a real test of the EU's capacity to effectively regulate the actions of its domestic tech firms and to properly incorporate AI technology into its own social fabric. In addition to setting a global standard for moral AI research, the EU's establishment and upkeep of strong internal norms serves to further connect technical advancement with democratic principles and human dignity within its own borders. Initiatives like the AI Act must be implemented with a careful balance: on the one hand, they should encourage technological advancement and innovation; on the other hand, they must impose strict ethical guidelines, particularly on technologies that could be used to support repression both inside and outside of the EU, though this is rare. Reaching this balance is essential to establishing the EU's strategy for AI governance, both domestically and globally. Countries all around the world are increasingly looking to the EU's regulatory model, which has become a point of reference, rather than the US when attempting to control AI. Acknowledging the EU's role as a global norm-setter is important, but so is the necessity of addressing local issues head-on with clarity and resolve, especially as new AI technologies continue to conflate public safety and freedom

[266] *Ibidem.*

of expression. By doing this, the EU upholds its position as a leader in moral AI and guarantees that its internal technology developments stay true to its core principles. This shows that the Union is prepared to critically examine itself and face its own shortcomings, which is a brave political move that may lead to more truthful and efficient regulatory procedures globally. In the end, this self-awareness might be the EU's most potent tool for guaranteeing that AI is created and regulated in a way that respects democratic values and fundamental human rights.

2.5 *The United States perspective: A market-driven response to AI governance*

With some of the top technology businesses and research institutes in the world, the USA is a center for AI innovation. It uses a market-driven regulatory strategy that depends on voluntary norms and self-regulation, giving priority to private-sector leadership in AI development. While limiting regulatory intrusion, policies like the NIST AI Risk Management Framework promote innovation-first approaches. But this disjointed governance architecture has sparked worries about accountability gaps, especially with relation to labor displacement issues, algorithmic bias mitigation, and AI fairness[267].Unlike the EU, the US has so far chosen to rely on and contribute to the creation of voluntary international standards through organizations like the IEEE and ISO, as well as to look mainly to current regulators to create regulations pertaining to AI in specific domains (such as consumer protection, finance, and transportation). Supporting "continued American leadership in AI" was stressed in a 2019 presidential executive order. The executive order required the National Institute of Standards and Technology (NIST) to release a plan for Federal engagement in technical standards development and the Office of Management and Budget (OMB) to develop guidelines for

[267] V. KULOTHUNGAN, D. GUPTA, *Towards Adaptive AI Governance: Comparative Insights from the US, EU, and Asia*, 2025.

regulating AI applications in order to inform the creation of regulatory approaches "that advance American innovation while upholding civil liberties, privacy, and American values". "Avoid regulatory or non-regulatory actions that needlessly hamper AI innovation and growth", according to the 2020 OMB guidance[268]. Following that, it outlined guiding principles for regulation, such as a focus on public trust through the development of robust, trustworthy, and dependable AI and the defense of reasonable expectations of privacy, nondiscrimination, safety and security, and transparency to allow for comprehension of the operation of an AI system or application. To protect health, safety, privacy, and other values, the OMB guidance encouraged the use of flexible, performance-based approaches that are "technology neutral and that do not impose mandates on companies that would harm innovation". It also called for the avoidance of "unnecessarily precautionary approaches to regulation that unjustifiably create anticompetitive effects or inhibit innovation"[269]. In 2019, NIST released a plan for U.S. involvement in technical standard-setting that included research into standards-setting, the creation of metrics and data sets to evaluate the "reliability, robustness, and other trustworthy attributes of AI systems" that could be included in standards, support for public-private partnerships to create novel approaches to standards, and involvement in international standard-setting initiatives "to advance AI standards for U.S. economic and security needs". Validity and reliability, safety, fairness and non-discrimination, security, resilience, accountability and transparency, explainability and interpretability, and privacy are the tenets that served as the foundation for NIST's AI Risk Management Framework (second draft), which was released in late 2022. In order to help enterprises "manage both enterprise and societal risks related to the design, development, deployment, evaluation, and use of AI systems", the framework is voluntary. It is "not a mechanism for compliance". It is independent of laws and regulations. In the United States, the lack of federal legislation might not last. An AI Algorithmic Accountability Act was introduced in the U.S. House of Representatives in February 2022, and the White House's Office of Science and Technology published a principles-based blueprint for a "AI Bill of Rights" in late 2022. The act would require the Federal Trade Commission to

[268] G.K. HADFIELD, J. CLARK, *Regulatory Markets: The Future of AI Governance*, 2023.

[269] *Ibidem.*

conduct impact assessments of automated decision systems[270]. The American Artificial Intelligence Initiative[271]: Year One Annual Report, released by the White House in February 2020, confirms that the private sector should lead the market in developing standards through a voluntary, transparent, and consensus-driven process. The market and industry determine the extent of regulation because US federal agencies only use or contribute to voluntary consensus AI standards created by the private sector. The government agencies are to give preference to consensus-based, inclusive and accessible, multipath, open and transparent, and internationally relevant and non-discriminatory standards when determining which private sector AI standards to promote. Moreover, preference should be given to AI standards that are innovation-driven, cross-sector applicable, sector-specific, application-focused, explicit about their scope and intended use, useful for monitoring and managing AI systems over the course of a product's lifecycle, reflective of early development and understanding of the implications of AI, updated frequently, efficient in measuring and evaluating the performance of AI systems, human-centered, harmonized with clear language, and ethically sensitive[272]. The United States has pushed for the elimination of obstacles to innovation on a global scale. For instance, Deputy Assistant to the President for Technology Policy Michael Kratsios urged "removing regulatory obstacles to discovery and innovation" at an OECD event on artificial intelligence. They "firmly believe that a rush to impose onerous and duplicative regulations will only cede our competitive edge to authoritarian governments who do not share our same values"[273]. Overall, the US has proposed many laws to advance and regulate AI. Its governance approach blends government regulation with company self-regulation. The nation's strategy for governing AI involves a delicate balance between encouraging innovation and resolving the various issues raised by the quick development of technology. The US government's recognition of AI as a revolutionary instrument that necessitates comprehensive planning and cooperation across all sectors and stakeholders

---

[270] *Ibidem.*

[271] M.A. GEIST, *AI and International Regulation*, in *Artificial Intelligence and the Law in Canada*, LexisNexis Canada, Toronto, 2021.

[272] *Ibidem.*

[273] *Ibidem.*

is seen in these overarching strategies[274].A major step [275]in the direction of a more coordinated national approach was taken with the recent White House Executive Order on AI, which was released in October 2023. The Order covers a number of topics related to AI governance, such as worker and consumer protection, privacy protection, equity and civil rights, safety and security, and the encouragement of competition and innovation. It attempts to improve privacy guidelines for federal agencies, sets new criteria for AI safety and security, and instructs federal agencies to create AI risk management frameworks.

Key provisions of the Executive Order include[276]:

1.Requiring that creators of potent AI systems notify the US government of the outcomes of their safety tests. This clause presents significant issues regarding how to strike a balance between openness and the safeguarding of confidential data, as well as possible difficulties in defining and quantifying "safety" in relation to AI systems.

2.Giving instructions for comprehensive red team testing of AI systems to the National Institute of Standards and Technology (NIST). Although this strategy seeks to improve the security and resilience of AI systems, it also calls into question the standardization of testing procedures and the possibility of test fraud.

3. Assessing how organizations gather and utilize information that is commercially available and contains personal data. The creation of precise regulations and enforcement systems will be necessary for this clause to be successful, but it underscores growing worries about data privacy in the AI era.

4. Offering advice to federal contractors, federal benefits programs, and landlords on how to stop AI systems from making discrimination worse. This strategy acknowledges that AI systems have the potential to reinforce or worsen social biases already in place, but its

---

[274] X.WANG, Y.C. WU, *Balancing Innovation and Regulation in the Age of Generative Artificial Intelligence*, in «Journal of Information Policy», 14, 2024.

[275] S. MIRISHLI, *The Role of Legal Frameworks in Shaping Ethical Artificial Intelligence Use in Corporate Governance*, 2025.

[276] *Ibidem.*

effectiveness will rely on the creation of efficient techniques for identifying and reducing algorithmic bias.

5. Creating guidelines and best practices to minimize the drawbacks and optimize AI's advantages for employees. This clause recognizes that artificial intelligence (AI) may have disruptive consequences on the labor market, but creating effective laws in this area will necessitate striking a careful balance between worker protection and the need for economic innovation and competitiveness.
6. Using a National AI Research Resource pilot to spur AI research. Although the goal of this project is to make AI research resources more widely available, it also calls into question the proper role of government in promoting technological advancement and the possibility of abuse or exploitation of such resources. More flexibility and possibly quicker adaptability to technology advancements are provided by the US strategy. But it also runs the risk of introducing regulatory voids and disparities across states and industries. For businesses that operate across the country, this fragmented landscape presents difficulties since they have to deal with different norms and criteria. The US may be at a disadvantage in establishing international AI governance standards due to the absence of a comprehensive federal AI law, thereby handing this responsibility up to other countries with more unified regulatory frameworks[277].

The United States has not yet taken a comprehensive stance on state-level regulation of AI. Rather, governments have largely governed AI by establishing particular requirements for businesses that use AI in particular situations (like employment) or by including particular aspects into comprehensive privacy laws (like the California Privacy Rights Act, or CPRA) [278]. Some U.S. state laws that are currently in effect or soon to be implemented (such as those in California, Colorado, Connecticut, and Montana) give consumers the option to opt out of having their personal information used for "profiling in furtherance of solely automated decisions produce legal or similarly significant effects" with regard to consumers (the Colorado legislation contains this particular wording, although similar language is used in the other states with this requirement). This

[277] *Ibidem.*

[278] I. BENIZRI, A. EVERS, S. MERCER, A. JESSANI, *A Comparative Perspective on AI Regulation*, in «Lawfare», 2023.

obligation is comparable to the GDPR and U.K. GDPR's opt-out requirement for this kind of processing[279]. "Any form of automated processing performed on personal data to evaluate, analyze, or predict personal aspects related to an identified or identifiable individual" is the general definition of profiling under these regulations. The decisions made by controllers on financial or lending services, housing, insurance, education, employment, criminal justice, health care, and other essentials like food or water are among the "legal or similarly significant effects" that these laws seek to regulate. In essence, these automated decision-making opt-out clauses give customers a way to have some influence over how their data is utilized in relation to technology they might not completely comprehend. In some use cases (like housing and education) where automated decision-making may affect a person's livelihood, they might be especially crucial. These opt-out clauses might also compel businesses to be more open about the process by which those crucial decisions are made[280]. The automated decision-making features of these state comprehensive privacy laws supplement the rights that consumers may have under the federal Fair Credit Reporting Act, state and federal anti-discrimination laws, and other laws that give consumers recourse for the use of their data (depending on how exactly their data is being used and for what purpose). The same holds true for more specialized state AI regulations that govern certain, high-risk use cases (like the employment AI rules that have been established in New York City and Illinois). The U.S. state comprehensive laws have additional requirements for businesses that use artificial intelligence, even outside of the specific rules pertaining to automated decision-making. For instance, the kind of data used to train a specific tool is one of the concerns that is crucial to the development of AI. Depending on how they are used, generative AI tools may be subject to applicable data protection rules. These tools are typically trained on texts, articles, webpages, and other data sources. This is due to the new privacy rules' expansive definition of personal data, which includes all information pertaining to an identified individual (much like the GDPR). A business must determine whether the underlying data it uses to train its AI models is covered by these comprehensive privacy laws. On the other hand, a business may conclude that the data it uses to train its models is exempt from the comprehensive privacy laws because it fulfills the requirements of the applicable

[279] *Ibidem.*

[280] *Ibidem.*

laws for “deidentified” data, which is defined as data that cannot reasonably be linked to an identifiable individual, or “aggregated” data, which is defined as data that relates to a group of individuals and cannot reasonably be linked to specific individuals. These types of data typically do not fall under the purview of “personal data” and are therefore exempt from these privacy laws[281]. In any case, any business wishing to develop its AI model in a way that complies with privacy regulations should do this examination. In addition to these regulations, California’s Assembly Bill 311 is the only “comprehensive” AI framework that has been proposed at the state level in the United States. If approved, this proposal would mandate that businesses creating “consequential” AI products carry out impact analyses, give Californians notice and opt-out options, and put in place a governance program with appropriate administrative and technical safeguards to address the reasonably foreseeable risks of algorithmic discrimination that the AI tool may pose. The statute would have a restricted private right of action and be enforced by the California attorney general. Regardless of what other states or Congress are doing, the California legislature has a tendency to proactively regulate tech policy concerns, even though this bill is still in committee. California has set an example on these concerns, and other states may follow suit if Bill 311 is signed into law[282].

Despite being progressive, the US governance strategies [283]highlight the difficulties in striking a balance between the advancement of technology and social, legal, and ethical standards. The current US regulatory framework for AI is flexible, which encourages innovation and keeps the US at the forefront of AI worldwide. It also begs the question of whether this strategy is adequate to protect against the numerous dangers that unchecked AI growth may present. There are significant ethical ramifications, particularly in regard to creative AI systems. The United States is currently working to reduce the dangers of privacy violations, biases, and the misuse of AI in surveillance and decision-making. However, they also draw attention to the reactive character of governance in this field, where laws frequently lag behind rapidly advancing technologies. Legally speaking, the existing frameworks start to handle problems like

[281] *Ibidem.*

[282] *Ibidem.*

[283] X.WANG, Y.C. WU, *Balancing Innovation and Regulation in the Age of Generative Artificial Intelligence*, in «Journal of Information Policy», 14, 2024.

deepfakes, disinformation, intellectual property disputes, and data privacy violations. But the landscape is still disjointed, with no all-encompassing legal framework that addresses the range of possible AI-generated content and its ramifications. Complexity is increased by the incorporation of AI into vital industries like healthcare, justice, and defense, which calls for strict requirements for precision, dependability, and equity. Even if current approaches are still in their infancy, they have spurred a national conversation about the moral application of AI, indicating a slow transition toward AI practices that are more accountable, transparent, and inclusive[284]. According to 17 U.S.C. § 101, [285]copyright law in the United States now functions on the basis that only works written by human authors are protected. The validity of AI-generated content for copyright protection is complicated and urgently raised by this fundamental need. The conventional limits of authorship and originality are being pushed to the limit as AI technologies advance and can create literary, musical, and artistic works with little assistance from humans. The ownership of content produced with the help-or even under the control-of artificial intelligence is a significant question raised by these advancements. Who is the owner of the rights to a painting produced by a neural network or a piece of music created by an algorithm? Ownership and usage rights disputes are anticipated to increase in frequency and intensity in the absence of a defined legal framework addressing these problems. There is increasing agreement that legislators ought to take proactive measures to update intellectual property laws to reflect the realities of contemporary technology in light of these new uncertainties. The development of new legal classifications under copyright law that legally recognize AI's contribution to the creative process could be one approach. Such categories could provide a more organized method of evaluating whether AI-generated works qualify for protection and help to explain ownership issues[286].The U.S. Copyright Office has taken preliminary action to resolve the legal difficulties around AI-generated content because it recognizes how urgent these concerns are. In particular, it has started public consultations to get feedback from a variety of stakeholders, such as

[284] *Ibidem.*

[285] G.O. MBAH, *The Role of Artificial Intelligence in Shaping Future Intellectual Property Law and Policy: Regulatory Challenges and Ethical Considerations*, in «Journal of Emerging Technologies and Innovative Research», 10(12), 2024, pp. 351-354.

[286] *Ibidem.*

tech businesses, legal professionals, creators, and the general public. These consultations are meant to help guide future policy decisions and demonstrate a growing understanding that the special features of AI-generated works may not be adequately addressed by current legal frameworks. The lack of a thorough and conclusive legislative solution, however, continues to be a major weakness in the existing regulatory environment in spite of these attempts. Similar issues have surfaced in the field of patent law, especially with regard to inventions created by AI systems on their own. Current patent law presumes the presence of a human inventor, just as copyright law demands human authorship. The U.S. Patent and Trademark Office (USPTO) has said unequivocally that an AI system cannot be considered an inventor under the current legal system. As AI grows more adept at handling complicated issues and creating original technical solutions on its own, this interpretation poses challenges for safeguarding inventions that were created with little to no human involvement[287].This legislative restriction has wide-ranging effects. Innovation may be discouraged or there may be doubt regarding the status of AI inventions if they are not eligible for patent protection because no human inventor invented them. Companies looking to get exclusive rights over important technology created wholly or partially by AI may also face challenges as a result. Legislative and policy-based solutions that may take into account AI's changing involvement in the creative process while preserving the integrity and intent of intellectual property systems are becoming more and more necessary, much like copyright law. In conclusion, the United States must immediately reevaluate its intellectual property rules to make sure they are still appropriate in this quickly evolving context as artificial intelligence (AI) continues to transform the landscape of creativity and innovation[288]. Civil rights advocates and privacy experts have legitimate concerns about the growing use of artificial intelligence and surveillance technologies, despite the fact that the United States operates within a democratic framework that upholds constitutional protections for freedom of speech and expression. Even though AI is rarely used in the blatantly oppressive ways that are typical of authoritarian governments, its application in some situations-particularly by state-level government officials-has nevertheless raised concerns[289]. This is especially true in

[287] *Ibidem.*

[288] *Ibidem.*

situations when vulnerable groups-like refugees or protesters-are involved, as AI-driven surveillance techniques have been viewed as means of repression and control rather than efficiency or safety. The use of facial recognition technology has been one of the most contentious and hotly contested applications of AI in the US. These techniques have sparked heated debates on topics including civil liberties, personal privacy, and the perpetuation of cultural biases. The actions of U.S. Immigration and Customs Enforcement (ICE), which carried out face recognition searches across driver's license databases in multiple states without the public's knowledge or approval, serve as a noteworthy case that exemplifies these issues. A larger trend of technology enabled monitoring that frequently eludes public attention is seen in this clandestine use of algorithmic surveillance to detect unauthorized immigrants. There are significant ethical and societal ramifications to using such advanced technology. Unsettlingly high levels of inaccuracy have been repeatedly shown by facial recognition algorithms, especially when it comes to recognizing women and people with darker skin tones. These differences are more than just hypothetical. The biased nature of these technologies has been demonstrated by researchers, and the results have shown to have significant real-world repercussions. A Black man was mistakenly jailed in Detroit, for example, based only on a false face recognition match. This incident highlighted the inadequacies of these algorithms and the potentially disastrous results when they are employed in the legal and law enforcement systems[290]. The use of facial recognition technology in the US is still mostly unregulated at the federal level, despite these grave dangers. These tools have been adopted and used without enough oversight or accountability due to the lack of a complete legal framework. The American Civil Liberties Union (ACLU) has brought attention to this regulatory gap by exposing that law enforcement agencies have adopted these technology without putting in place any laws, protections, or redressal procedures. In addition to undermining public confidence, the unrestrained growth of facial recognition technology exposes people to surveillance without their knowledge or consent[291]. Furthermore, the security of the enormous datasets that underpin these AI technologies is

[289] H.A. ÜNVER, (2024). *Artificial Intelligence (AI) and Human Rights: Using AI as a weapon of repression and its impact on human rights*.

[290] *Ibidem.*

[291] *Ibidem.*

a major worry. A clear reminder of the weaknesses in these systems is provided by the 2019 cyberattack that exposed the private biometric information of thousands of federal agents and police. Such occurrences provide more serious risks than only the immediate privacy violations, such as the potential for unauthorized actors to abuse or improve facial recognition technology using stolen data. The concerns that already exist regarding the potential for AI technologies to be used in ways that violate democratic freedoms and civil rights are heightened by this scenario. Most concerningly, the use of facial recognition in situations involving political expression and public protest strikes a particularly delicate chord. The freedom to congregate and express oneself is essential in democracies. However, there are significant concerns regarding how to strike a balance between maintaining democratic ideals and public safety when surveillance techniques are used to track opposition voices or monitor protestors. The future of civic engagement and the viability of democratic discourse are seriously threatened by the possibility that these technologies could be employed not merely for enforcement but also for intimidation or deterrent[292]. The discussion of AI in the US cannot be restricted to innovation and economic expansion in light of these problems. Its usage has darker ramifications that require careful, inclusive, and strong regulatory responses, particularly when such implications jeopardize privacy, justice, and freedom. In conclusion, there is a slow change taking place in the governance strategies that the United States has taken with artificial intelligence. These tactics are distinguished by a dual commitment: on the one hand, the United States is making concerted efforts to maintain and strengthen its position as a global leader in the creation and application of AI technologies; on the other hand, it is also confronting the increasing necessity of addressing the intricate domestic ramifications that the inevitable integration of AI systems into society entails[293]. This changing approach shows a conscious effort to strike a balance between two different but connected priorities: strategically encouraging AI innovation while simultaneously responding, albeit in a somewhat disjointed way, to the new risks and regulatory issues that come with these quick technological advancements. It is becoming more and more

---

[292] *Ibidem.*

[293] X.WANG, Y.C. WU, *Balancing Innovation and Regulation in the Age of Generative Artificial Intelligence*, in «Journal of Information Policy», 14, 2024.

obvious that the US needs to strengthen its governance structure as artificial intelligence keeps spreading its influence and reach throughout different industries. This calls for a more comprehensive and sophisticated approach-one that extends beyond the strictly technology realm to completely incorporate ethical, legal, and social aspects into its regulatory response-in addition to technical regulation. The US must take a proactive, diversified approach to policymaking that guarantees the proper development, application, and deployment of these technologies in order to address the complex issues raised by generative AI. In order to create standardized norms and common best practices, the United States must also actively engage in international cooperation initiatives and have open discussions with other nations and international organizations. This international cooperation is essential to ensuring that generative AI advances in a way that is not only novel but also in line with the core values of ethical standards, respect for individual rights, and democratic government [294]. It can make a significant contribution to the development of a global environment that promotes technological advancement while preserving human dignity by actively influencing new international regulatory frameworks and learning from the experiences of other jurisdictions. In this sense, the US has the chance to guide the global conversation on generative AI in the direction of a future where innovation flourishes alongside the defense of human rights and the advancement of moral principles[295].

2.6 *The Chinese model: A state-controlled approach to AI regulation*

China and the United States lead the world in artificial intelligence technology, but their approaches to its use are essentially different. AI is a key component of the larger control system in China that upholds the Communist Party's authority. Furthermore, China

[294] *Ibidem.*

[295] *Ibidem.*

furthers its geopolitical objectives-most notably, undermining the Western liberal order, establishing dominance in Asia, and extending its worldwide influence-by exporting sophisticated AI capabilities to other authoritarian regimes. China is actively developing advanced AI technologies and promoting them overseas as part of this mission[296]. Chinese lawmakers have been at the forefront of developing some of the most extensive and early laws governing AI services in recent years. The nation revealed a complete rule in late 2021 that was created especially to control algorithm-powered recommendation systems[297]. China began studying AI in the early 1980s, but during the next three decades, it made very modest headway. Data, another foundation of artificial intelligence, was expanding quickly while technology growth was faltering. Since the early 2000s, China has emerged as one of the top nations in the internet economy thanks to the rapid development of ICT infrastructure, cheap labor costs, and a sizable population of internet users. Some online marketplaces, like Tencent, Alibaba, and Baidu, have become the most valuable businesses in the world. China's digital titans and new start-ups quickly took advantage of this window of opportunity when deep learning algorithms improved in the early 2010s by utilizing China's rich data and application scenarios. Among other AI technologies, the two most effectively marketed ones are picture recognition and intelligent suggestion. Traditional industries are also enthusiastically utilizing AI to upgrade their businesses, which in turn provides more data and sector-specific knowledge for AI technology improvement. This is in addition to the active application of AI by AI technology developers to a variety of application scenarios, such as traffic control, retailing, and healthcare. The growth of China's AI business is driven by this positive feedback loop between data, technology, investment, and the market[298]. China's State Council published the Next Generation Artificial Intelligence Development Plan on July

---

[296] S. FELDSTEIN, *The Road to Digital Unfreedom: How Artificial Intelligence is Reshaping Repression*, in «Journal of Democracy», 30(1), 2019, pp. 40-52.

[297] A.H. ZHANG, *The Promise and Perils of China's Regulation of Artificial Intelligence*, in «Columbia Journal of Transnational Law», 63, 2025, p. 1.

[298] Z. YU, Z. LIANG, L. XUE, *A Data-Driven Global Innovation System Approach and the Rise of China's Artificial Intelligence Industry*, in «Regional Studies», 56(4), 2022, pp. 619-629.

20, 2017[299]. The growth Plan, which ends in 2030, lays forth long-term strategic objectives for China's AI growth. It includes "guarantee measures" to support the growth of AI, like creating a legislative framework and bolstering intellectual property protection. The three stages of the development plan end in 2020, 2025, and 2030, respectively, and each one has the following objectives for creating a framework for ethics and regulations:

1. China's AI application and overall technology would reach internationally advanced levels by 2020. In certain places, laws, rules, and ethical standards pertaining to AI would first be enacted.
2. China would lead the world in certain technologies and applications by 2025 and make significant strides in fundamental AI theories. AI security assessment and control capabilities would be attained, together with the early establishment of legal, ethical, and policy frameworks.
3. China will be the world's main hub for AI innovation by 2030, when its theories, technologies, and applications will reach cutting-edge levels. AI policy, ethics, and legal frameworks would be substantially enhanced[300].

The Development Plan suggests "creating an open and inclusive global environment, strengthening the social foundation of AI development, and forming an institutional arrangement to adapt to the development of AI". In this context, the specific assurance measures are as follows:
4. Creating frameworks for ethics and regulations: This proposal intends to provide ethical and regulatory frameworks to ensure the healthy development of AI and to advance research on legal, ethical, and social issues pertaining to AI. China would specifically study the legal aspects of AI applications, such as ensuring civil and criminal liability, safeguarding property and privacy, and using information security.

5. Offering tax benefits for AI businesses: This important policy aims to encourage the growth of AI businesses by offering high-tech businesses tax breaks and deductions for research and development.

---

[299] J. GESLEY, T. AHMAD, E. SOARES, R. LEVUSH, G. GUERRA, J. MARTIN ET AL (*H. Goitom*), *Regulation of Artificial Intelligence in Selected Jurisdictions*, 2019.

[300] *Ibidem.*

6. Creating technological standards: This would involve creating technical standards for things like privacy protection and network security. Chinese AI companies will be urged to take the lead in creating international AI standards or to take part in them. 7. Strengthening intellectual property (IP) protection: By creating AI public patent pools, this will encourage the use of innovative AI technology and protect AI innovations under IP.

8. Creating the AI security supervision and evaluation system: the goal is to create an open and transparent AI supervision system as well as an early warning system for AI security monitoring. China would encourage the AI sector and businesses to self-regulate and toughen penalties for data misuse, privacy infringement, and unethical behavior in this area. The Ministry of Industry and Information Technology (MIIT) released the Three-Year Action Plan for Promoting Development of a New Generation Artificial Intelligence Industry (Action Plan) in December 2017 in order to carry out the first phase of the Development Plan. In the three years between 2018 and 2020, China would prioritize the following seven areas, per the Action Plan:[301] Medical imaging diagnosis systems, video image identification systems, intelligent voice interactive systems, intelligent translation systems, intelligent network vehicles, intelligent service robots, and intelligent unmanned aerial vehicles Although it doesn't go into detail about any particular steps, the Action Plan also suggests conducting study on laws, policies, and regulations related to AI as a way to foster a positive environment for the AI industry's healthy growth[302]. Early in 2023, the Cyberspace Administration of China (CAC) implemented a series of regulations to limit the manufacture of deepfakes, making China the first nation to stop the rapid development of this field of artificial intelligence. Chinese officials swiftly responded to ChatGPT's November 2022 launch with a flurry of legislative and enforcement measures. In April 2023, the CAC published draft legislation on generative artificial intelligence, marking China the first nation to put forth full regulations for this game-changing technology. China completed the regulations and imposed a wide variety of requirements on generative A.I. service providers in less than three months. Generative A.I. services that have the ability to influence public opinion,

[301] *Ibidem.*

[302] *Ibidem.*

such recommendation algorithms and deepfakes, are required to register their algorithms with the CAC and go through a security evaluation prior to going on sale. China is the only nation to require a license for the introduction of such services, and this necessity for ex ante security evaluation makes it the first[303]. It has actively participated in multilateral forums pertaining to artificial intelligence on a global scale. In an effort to shape the global conversation on AI and aid in the creation of international standards, it has collaborated with institutions including the UN and the World Trade Organization. China intends to have a major influence on how AI technologies are governed globally, as seen by its involvement in various fora. In order to promote the responsible development and application of AI in a way that respects human rights, diversity, inclusiveness, innovation, and economic progress, China is also a member of the GPAI. and participates in the debates and information exchange on AI policy and practices as a member of this group[304]. The latter also sells its governance practices and AI technologies to other countries through its bilateral ties, which could have an impact on how those countries formulate their own AI policies. The norms, standards, and regulatory principles that go along with the technology's implementation are also included in this export. Despite its active engagement, China's approach to AI legislation is frequently seen as being at variance with Western viewpoints, especially when it comes to the state's primary role in governance, given its emphasis on security and surveillance as well as how it handles personal data. China's AI efforts frequently mirror more general strategic objectives, such as economic growth and national security, which have a big impact on how AI is governed and applied internationally. In conclusion, China's aggressive national AI development plans, developing regulatory environment, active involvement in international organizations, and exporting its AI technologies and governance concepts worldwide all contribute to its role in regulating and establishing international standards on AI. The Chinese strategy combines state interests with AI research, which has a significant effect on its AI governance procedures and the international standards it promotes. Various government agencies and business associations have issued a number

---

[303] A.H. ZHANG, *The Promise and Perils of China's Regulation of Artificial Intelligence*, in «Columbia Journal of Transnational Law», 63, 2025, p. 1.

[304] H.A. ÜNVER, (2024). *Artificial Intelligence (AI) and Human Rights: Using AI as a weapon of repression and its impact on human rights*.

of guidelines and principles that provide light on its position on the moral and responsible application of Artificial Intelligence[305]:

1. The Beijing Academy of AI released the Beijing AI Principles in June 2019, outlining a set of guidelines for AI research, development, application, governance, and long-term planning that prioritize AI's positive effects on both people and the environment.
2. To prevent the abuse of algorithmic recommendation systems, the Chinese Cyberspace Administration published draft laws in 2021. The proposed regulations sought to curtail actions that might influence user behavior or disseminate false information.

3. Although not specifically addressing AI, the Personal Information Protection Law, which went into force in November 2021, is essential to AI ethics since it regulates the processing of personal data, which is essential to AI systems. It lays out standards that AI developers and operators must adhere to for data protection, user permission, and openness in data processing.
4. A regulatory foundation for data protection and management is provided by the Data protection Law, which also went into force in 2021 and has an impact on how AI uses and processes data[306].

In order to carry out AI-specific research and offer recommendations, the government has also formed an AI Strategy Advisory Committee, which is led by Pan Yunhe, a professor at the Chinese Academy of Engineering. China's New Generation AI Governance Expert Committee was formed by the Ministry of Science and Technology (MOST), and it subsequently defined the next-generation AI governance guidelines. (i) peace and friendliness; (ii) justice and fairness; (iii) inclusivity and sharing; (iv) privacy protection; (v) security and controllability; (vi) shared responsibility; (vii) open cooperation; and (viii) agile governance are the eight guiding principles. In actuality, the Chinese government even controls the AI Industry Development Alliance, which unites more than 200 businesses and organizations across the country. For China's AI industry to grow, the Alliance depends on a public service platform[307]. As previously said, the best method to

[305] *Ibidem.*

[306] *Ibidem.*

achieve China's goal of becoming a global leader in AI by 2030 is to give people access to the required hardware, data sources, and training while fostering Chinese national values. National investments in AI guarantee coherence and reliable financing and support sources[308]. The AI startup Yitu's [309]explosive growth serves as an example of this goal. Within six years of its founding in 2012 by two Chinese AI experts, Yitu achieved notable breakthroughs. Its "Dragonfly Eye" facial recognition technology currently has over 1.8 billion photos, and the company says its system can recognize people in three seconds. About 320 million photographs taken at China's borders are included in the database, along with pictures from the nation's official records. With locations in Shanghai, Singapore, and Silicon Valley, Yitu now employs over 500 people and was valued at $2.4 billion by 2018. Most significantly, the U.S. National Institute of Standards and Technology (NIST) and the Intelligence Advanced Research Projects Activity (IARPA) program inside the U.S. intelligence community have both awarded its facial recognition algorithms high honors[310]. China uses the Belt and Road Initiative (BRI) to spread its technology throughout the world as it develops a strong AI industry. Projects include giving Argentine authorities facial recognition and artificial intelligence tools for public monitoring and building "safe cities" in Pakistan, which are metropolitan regions with sophisticated surveillance systems. Beijing's assumption that other countries will be less of a danger to Chinese hegemony the more it can match their governance patterns with its own is reflected in this policy. Furthermore, other governments may feel pressured to align their policies with China's geopolitical objectives as they depend more and more on Chinese AI technologies to manage their populations. AI will provide "a new impetus for advancing supply-side structural reforms, a new opportunity for rejuvenating the real economy, and a new engine for building China into both a manufacturing and

---

[307] M.A. GEIST, *AI and International Regulation*, in *Artificial Intelligence and the Law in Canada*, LexisNexis Canada, Toronto, 2021.

[308] N.R. MANNURU, S. SHAHRIAR, Z.A. TEEL, T. WANG, B.D. LUND, S. TIJANI et al (*P. VAIDYA*), *Artificial Intelligence in Developing Countries: The Impact of Generative Artificial Intelligence (AI) Technologies for Development*, in «Information Development», 2023, codice articolo: 02666669231200628.

[309] S.FELDSTEIN, *The Road to Digital Unfreedom: How Artificial Intelligence is Reshaping Repression*, in «Journal of Democracy», 30(1), 2019, pp. 40-52.

[310] *Ibidem.*

cyber superpower", according to China's national AI policy, which is clear about these goals[311]. Algorithmic authoritarianism is one of the most difficult and well-researched applications of AI-based technologies in China. Because it targets the Uighur Muslim minority, this practice has become a major problem in Xinjiang. A sizable section of this population is being monitored, controlled, and detained by the Chinese government through extensive surveillance equipment that uses a variety of technologies, from facial recognition to predictive policing[312]. According to reports, [313]China is developing a video surveillance system that uses advanced technology like facial recognition. As of 2017, the system had twenty million cameras, many of which were capable of facial recognition, according to the U.S. Congressional Executive Commission on China's 2018 annual report. One of the system's key goals is to preserve social order, which includes stopping rallies and demonstrations, in addition to combating crime. By 2020, the nation hopes to have a fully functional statewide surveillance and facial recognition network, with "complete unification of its existing databases across the country and 100% surveillance and facial recognition coverage"[314]. In cooperation with a Shanghai-based security firm, the MPS purportedly developed a facial recognition database in 2018 that "had the power to identify any one of its 1.3 billion citizens within three seconds". The news source claims that the database will connect to data processing and storage facilities spread out across the nation via cloud services and can be linked to networks of surveillance cameras. Traffic cops in Guangdong Province's cities like Shenzhen have used LED screens and facial recognition technology to humiliate and discourage jaywalkers. The citizens are identified by face recognition software that compares their photos to a database after street cameras record footage of people crossing the street unlawfully. Screens show pictures of such individuals together with their family names and a portion of their ID numbers. Furthermore, it was reported in the beginning of 2018 that police officers in Zhengzhou, Henan Province, were searching for wanted offenders with the aid of glasses equipped

---

311 *Ibidem.*

312 H.A. ÜNVER, (2024). *Artificial Intelligence (AI) and Human Rights: Using AI as a weapon of repression and its impact on human rights*.

313 J. GESLEY, T. AHMAD, E. SOARES, R. LEVUSH, G. GUERRA, J. MARTIN ET AL (*H. Goitom*), *Regulation of Artificial Intelligence in Selected Jurisdictions*, 2019.

314 *Ibidem.*

with facial recognition software[315]. Beijing's approach[316] in the area has changed from containment to active information suppression with the goal of micromanaging Xinjiang residents' personal information and biometrics. This change includes a conscious choice to use some of the most cutting-edge AI applications to test and scale some of the benefits of automated systems for monitoring and surveillance. The synthesis of two main schools of thought inside the Chinese leadership is where this policy was conceived. First of all, the emergence of AI worldwide offered an alluring instrument that would provide unmatched surveillance powers. Second, Xinjiang's particular problems necessitated a widespread, covert, and proactive solution. The adoption of AI in this context was the result of careful preparation, supported by the conviction that technology should have a dominant role in governance. The proposed AI system would serve as the foundation for an advanced predictive policing program in addition to enhancing current surveillance. In order to support algorithms intended to identify possible dissidents before any overt acts of resistance could materialize, this anticipated the use of massive expenditures in data point collection infrastructure, ranging from biometrics to behavioral patterns. Thus, under the pretext of social stability and counterterrorism, the choice to use these cutting-edge instruments in Xinjiang was determined to be strategically necessary[317]. This was a turning point in the development of Chinese surveillance programs, an indication that traditional, human resources-based processes were starting to give way to algorithmic governance. This has led to the launch of numerous data collection programs. One well-known example is the 2015 debut of the Sharp Eyes program, which built upon the 2005 Skynet urban monitoring initiative. Surveillance cameras, license plate and car cameras, and virtual identities like MAC addresses and phone numbers are just a few of the data sources that Sharp Eyes uses. Geographic information systems are then used to integrate this data before being forwarded to "societal resource integration platforms", which exist in Xinjiang and other provinces. China's data-fusion initiatives target particular social groups, particularly those regarded to be "focus personnel", such as those who petition

---

[315] *Ibidem.*

[316] H.A. ÜNVER, (2024). *Artificial Intelligence (AI) and Human Rights: Using AI as a weapon of repression and its impact on human rights*.

[317] *Ibidem.*

the government, engage in terrorism, or otherwise threaten social order [318]. Under these programs, the Uyghur ethnic minority in Xinjiang is closely monitored. Government-issued identification cards are linked to physical attributes by tools like Xinjiang's Integrated Joint Operations Platform (IJOP), which also keeps an eye out for behaviors seen to be suggestive of possible social instability. Furthermore, collaboration between private companies and governmental security agencies is required by Chinese legislation. These include the national intelligence law from 2017, the cybersecurity law from 2016, and the data security law from 2021. Political stability is highly valued in such a setting of growing centralization and rigidity, which also calls for data exchange with government officials. The everyday movements of residents are now routinely monitored, with frequent verification at checkpoints or data gathering sites. These stations were put up to collect personal information, which usually included looking through personal communication devices, scanning identification documents, and using facial recognition software. These checkpoints highlight the ongoing state surveillance and gather the comprehensive data required for sophisticated predictive policing technologies[319].This massive data collection has led to the development of predictive police algorithms, which have made it easier to identify patterns that might point to dissension or non-conformity. Their goal has been to anticipate possible security concerns rather than to deal with current crimes. This represents a change from traditional policing techniques to a governance paradigm that is centered on anticipatory managing and reducing risk. Many Uighurs have been imprisoned in reeducation camps after falling into the predictive police system's web as a result of this data-centric security approach. Based on the unclear results of AI system evaluations, these detentions have been characterized by a lack of transparency and are frequently carried out without official charges or a formal judicial process. The wide-ranging monitoring system has made the Uighur minority feel constantly watched, which has led to a lot of self-censorship and behavioral adjustments. People have adjusted to the unwritten boundaries established by the surveillance system, stopping routine activities and having guarded talks. Citizens have been greatly impacted psychologically by this, as the very fact that they are being watched has changed the

[318] *Ibidem.*

[319] *Ibidem.*

dynamics of the society. This digital authoritarianism has led to the emergence of a growing surveillance technology sector. Chinese companies like Hikvision and Dahua Technology, which specialize in cutting-edge surveillance gear and software, have found themselves at the forefront of a developing local industry[320].These businesses have benefited greatly from government contracts, and their technological advancements are now evidence of the state's capacity to rule and control its populace. Despite international criticism and sanctions, the scope of installations in Xinjiang helped propel these companies to the forefront of the global surveillance technology industry. The internal narrative of the Chinese government has presented the Xinjiang monitoring and reeducation programs as essential to countering extremism and promoting economic growth. The government's strong hold on the domestic information landscape has contributed to the spread and acceptance of this viewpoint among the Han Chinese majority. The region's infrastructural development and employment creation have been emphasized by state media, which has increased public support for government programs. A distorted public perception exists in China as a result of the widespread suppression of discussions regarding the effects of these policies on the Uighur population and other ethnic minorities. The worldwide response has been characterized by harsh criticism, which contrasts sharply with the approval at home. Journalists' investigative reporting and human rights organizations' campaigns have exposed the circumstances in the reeducation centers and the vast surveillance system, sparking a wave of worldwide censure. The Chinese government's activities have been described as grave violations of human rights by a number of Western nations, international organizations, and advocacy groups[321]. A strong, if convoluted, international response was demonstrated by the sanctions that were placed on Chinese authorities and tech firms implicated in Xinjiang's repression and monitoring. The Chinese government has continuously denied claims of human rights abuses in response to foreign criticism. Officials contend that the surveillance procedures are necessary to preserve stability and fight terrorism, and they have frequently referred to the camps as vocational training facilities. This position has been backed by a concerted diplomatic effort to combat unfavorable representations, such

---

[320] *Ibidem.*

[321] *Ibidem.*

as inviting a small number of foreign guests to see facilities during meticulously planned visits meant to highlight the government's story. The advanced surveillance system in Xinjiang continues in spite of international pressure and scrutiny. The long-term effects and the fate of people who have been held continue to be of international concern, notwithstanding reports that indicate a decline in the population of the reeducation camps. Moreover, the technology that was created and refined in Xinjiang is being sold to other nations in addition to being used today. Concerns are raised over the export of these monitoring tools and the possibility that other governments may use comparable social control strategies[322]. Despite this major problem,[323] the general public's opinion and the Chinese scientific community's position on artificial intelligence are largely positive. According to an Ipsos survey conducted in 2021, 78% of Chinese respondents said that artificial intelligence (AI) goods and services were more helpful than dangerous. This is the highest number among the 28 nations surveyed and far higher than the global average of 52%. According to the same survey, Chinese participants also showed the greatest degree of confidence in businesses adopting artificial intelligence and the least amount of anxiety around the use of AI goods. Eighty-six percent of respondents to a 2023 study who are familiar with huge A.I. models believe that these models have a favorable impact on society. Seventy-two percent [324]of computer science specialists agree that powerful A.I. poses existential concerns, yet a larger percentage-69%-supports its advancement. Despite these hopeful sentiments, there are serious hidden risks associated with China's loose regulatory framework regarding artificial intelligence. As previously explained, the government is adopting a "whole of society" strategy to advance the development of artificial intelligence without necessarily implementing workable preventative measures. Although this command-and-control approach works well for large-scale mobilization, it may also impair the competence and authority of local government and the professional judgment of regulators. The Chinese government can respond to regulatory problems with force, but if it takes too long, it may be very difficult or expensive to turn things around.

---

[322] *Ibidem.*

[323] A.H. ZHANG, *The Promise and Perils of China's Regulation of Artificial Intelligence*, in «Columbia Journal of Transnational Law», 63, 2025, p. 1.

[324] A.H. ZHANG, *The Promise and Perils of China's Regulation of Artificial Intelligence*, in «Columbia Journal of Transnational Law», 63, 2025, p. 1.

Some of the biggest policy issues the Chinese government has encountered recently, such as the control of COVID-19, the energy crisis of 2021, the crackdown on real estate, and China's demographic catastrophe, all exhibit this pattern of crisis management. In the meantime, internal use and enterprise-facing AI apps are not subject to monitoring under the interim measures. This leaves a wide range of A.I. activities, such as research, tests, and industrial applications, mainly unregulated. As of January 2024, only roughly forty LLMs have been approved by the Chinese government, according to Robin Li, the creator of Baidu[325]. With the prevalence of fraud in the home market, this regulatory loophole is especially concerning. Indeed, there is a significant chance that artificial intelligence may be used for similar fraudulent ends in China, a country well-known for its vast underground economy that produces fake items ranging from shoes to internet evaluations. Furthermore, there is a worrying tendency of deprioritizing AI safety due to fierce competition among Chinese companies, which raises the possibility of A.I.-related disasters. Despite requiring security assessments for services that interact with the public, the Interim Measures primarily address information control while ignoring other important facets of A.I. safety. The National Information Security Standardization Technical Committee's Standard, for example, focuses mostly on content even if it provides comprehensive standards for training data and model safety[326]. This restricted focus ignores the wider uses of generative artificial intelligence, which span numerous industry sectors and go much beyond content creation. Although it is still in its infancy, China has made efforts in recent years to set up an ethics assessment framework for artificial intelligence. Enforcement is very dispersed and mainly depends on businesses, research institutes, academic institutions, and health organizations self-regulating. As a result, it is still difficult to monitor and evaluate how effective these reviews are, which begs the question of how they might affect developer behavior and reduce the hazards associated with artificial intelligence[327]. In fact, some top Chinese LLMs with capabilities similar to GPT-3.5 have not been thoroughly tested for harmful capabilities or put through alignment processes that go beyond RLHF. However, the necessity for increasingly

[325] *Ibidem.*

[326] *Ibidem.*

[327] *Ibidem.*

complex alignment methods-including testing for potentially dangerous skills like deceit, power-seeking behavior, and self-replication-is increasing as Chinese A.I. capabilities develop. The actual application and adherence to these principles are still very unclear, despite the fact that some Chinese labs have released non-binding declarations and some have even set up A.I. ethics committees to assist businesses in making moral decisions. In summary, it is imperative to confirm that the Chinese government has implemented a two-pronged strategy for regulating artificial intelligence technologies. It is actively exercising control over content produced by artificial intelligence. On the other hand, it is organizing different stakeholders to advance A.I. development while indicating to the market and regulatory agencies a lax and cautious approach to A.I. regulation. In reality, Chinese regulatory bodies have taken an industry-friendly posture that provides Chinese companies a competitive edge over their American and European rivals, prioritizing development above stringent information control[328]. Nevertheless, there are risks associated with this lax regulatory approach. Due to China's weak legal system, weak market conditions, and a persistent information gap in the hierarchical regulatory structure, a loose regulatory framework encourages mistakes and even tragedies caused by artificial intelligence. As a result, the global AI community should pay more attention to China's A.I. safety concerns, and international cooperation is urgently needed to overcome the shortcomings in domestic institutions.

2.7 *Key challenges in regulating AI creativity: The ethical and legal dilemmas ahead*

Given the speed at which generative AI is developing, we are at the cusp of a new era that presents hitherto unheard-of ethical, legal, and social difficulties. It is not only desirable

[328] *Ibidem.*

but also essential to create a thorough and proactive legal strategy as generative AI becomes more ingrained in our daily lives[329].

Important facets of identity, human rights, and social structures are changing as a result of the quick development of Al technologies, especially generative Al[330].Through expanding information availability, elevating underrepresented voices, and creating new forums for individual expression, these technologies have enormous potential to further human rights action. Generative Al has the potential to strengthen social justice movements and draw attention to human rights issues that could otherwise go unnoticed by democratizing content creation and raising awareness. These advantages come with significant hazards, though. The protection of human rights is seriously threatened by Al's capacity to reinforce preexisting prejudices, its invasion of privacy, and the dissemination of false information. While the degradation of privacy through illicit data collecting challenges the fundamental right to personal autonomy, the inclusion of biased datasets in AI systems can encourage prejudice, especially against disadvantaged populations. Furthermore, Al runs the potential of being taken advantage of in ways that sway public opinion and widen social divides in the absence of adequate accountability and transparency[331]. Due mostly to the reactive nature of legal remedies, the quick development of AI technologies has exposed legal gaps[332]. The revolutionary effects of AI are frequently not foreseen by current legislation, which results in unclear responsibility, moral conundrums, and regulatory inconsistencies. For example, the intricacy of intellectual property rights in generative AI inventions is not adequately addressed by current regulation. AI-generated work challenges the idea of human authorship, which is central to traditional IP rules. This has resulted in contentious discussions about ownership, infringement, and compensation. There is also a lack of

---

[329] X.WANG, Y.C. WU, *Balancing Innovation and Regulation in the Age of Generative Artificial Intelligence*, in «Journal of Information Policy», 14, 2024.

[330] R. BANGUN, S. FIKIRI, *The Role of Generative AI in Shaping Human Rights and Gender Equity: A Critical Analysis*, in «Journal of Indonesian Legal Studies», 9(2), 2024.

[331] R. BANGUN, S. FIKIRI, *The Role of Generative AI in Shaping Human Rights and Gender Equity: A Critical Analysis*, in «Journal of Indonesian Legal Studies», 9(2), 2024.

[332] X.WANG, Y.C. WU, *Balancing Innovation and Regulation in the Age of Generative Artificial Intelligence*, in «Journal of Information Policy», 14, 2024.

accountability. Traditional legal frameworks struggle to assign accountability when AI systems make decisions on their own, particularly when those decisions have negative consequences. This ambiguity highlights the need for clear legal guidelines on AI accountability since it may protect people and organizations from being held accountable for the activities of AI. Laws protecting privacy are also being challenged. The boundaries between permission, identity rights, and data protection are blurred by generative AI's ability to create deepfakes and synthetic data. Stronger data governance laws are required since the privacy standards in place are insufficient to combat these new risks[333]. A comprehensive approach is necessary to move toward a harmonized legal framework for AI. The ethical and legal guidelines governing AI must first be agreed upon globally. Despite the global nature of AI innovation, rules are still mostly national or regional, which could result in conflicts and discrepancies. National laws can have a unified basis thanks to collaborative international frameworks that were created in cooperation with international AI professionals, ethicists, and legal scholars. Next, a proactive legislative strategy is necessary, where laws are frameworks created with foresight, anticipating future AI developments and their societal repercussions, rather than only responding to occurrences caused by technology. Furthermore, the governance process might be streamlined by establishing a specific regulatory agency for AI. This organization would supervise the development of AI, guarantee adherence to moral and legal requirements, enforce accountability protocols, and offer a formal forum for addressing complaints about AI. Finally, there is a need to improve public literacy and legal knowledge on AI. For the public to participate in AI governance in an educated manner, a deeper comprehension of AI's principles, constraints, and legal ramifications is essential as the technology becomes increasingly integrated into everyday life[334]. Civil society is also very important. Academic institutions, consumer rights organizations, and public advocacy groups can all offer insightful information about what society expects from AI, which can help shape laws and policies that serve the general public's interests. Additionally, they have the power to hold businesses and governments responsible, guaranteeing that AI advances society. In summary, closing the legal loopholes in AI

[333] *Ibidem.*

[334] X.WANG, Y.C. WU, *Balancing Innovation and Regulation in the Age of Generative Artificial Intelligence*, in «Journal of Information Policy», 14, 2024.

governance is a dynamic and challenging undertaking. It calls for an integrated strategy that harmonizes legal, ethical, and social norms with technological breakthroughs in addition to a revision of current legal frameworks to address the particular difficulties presented by AI. A unified, all-encompassing, and proactive legal system is becoming more and more necessary as generative AI continues to push the envelope. Making ensuring AI develops in a way that is compatible with democratic norms, human rights, and the concepts of justice and equity is not only a legal issue; it is also a social necessity[335].The incorporation of AI into societal frameworks poses ethical conundrums that go beyond legal technicalities. Fairness, justice, and equality are all at danger because algorithmic biases may result in discriminatory actions that reinforce social injustices while passing off automated impartiality. The solution calls for a reevaluation of the AI development process itself, not just legislation. The development and application of AI technology must take an interdisciplinary approach to ethics, taking into account the opinions of various stakeholders. Strong public debate, cooperation between technologists and legislators, and genuine adherence to social norms and values are all examples of this. Additionally, AI systems must be more transparent and explicable[336]. AI systems must be built to justify their choices as legal requirements change, particularly in high-stakes industries like healthcare, law enforcement, and finance. Verifying AI judgments against moral, legal, and societal standards requires this transparency[337]. The EU has recognized the potentially disastrous hazards posed by rapidly developing AI technology, as have several other major nations, including the USA, UK, and China. The Bletchley Declaration, the first worldwide announcement pledging to work together on AI safety research, was signed by 28 nations, including China, at the British government's AI safety summit in November 2023. The USA and the UK appear to be competing with one another over who should be in charge of creating new AI legislation, but this agreement still stands. For the UK, the meeting was a diplomatic triumph, especially for Prime Minister Sunak, who organized it in response to worries about the unchecked and swift development of AI models. During the meeting, Chinese Vice-Minister of Science

---

[335] *Ibidem.*

[336] *Ibidem.*

[337] *Ibidem.*

and Technology Wu Zhaohui and US Commerce Secretary Gina Raimondo shared the stage in a rare demonstration of international solidarity. With Wu highlighting the values of equality, respect, and reciprocal advantages in AI development and application, China's involvement in the proclamation was noteworthy[338]. Though their fragmentation presents difficulties for international interoperability, ethical coherence, and policy coordination, the disparate AI governance models that the US, EU, and China have developed reflect distinct regulatory philosophies [339]. The increasing significance of AI has led to requests for shared rules, standards, and legislation as well as national plans to create leadership positions in the area. However, it is becoming more and more evident that there are a number of obstacles to overcome when examining the governance approaches to AI policy. First, governance models differ greatly; the US established a market-led, self-regulated approach based mostly on unenforceable principles, whereas China adopted government-led programs with extensive market interference. The nations that have taken action on this matter are positioned in the middle of these two categories[340]. It will be challenging to reconcile the many governance models if the goal is to create shared principles and rules, even while there is undoubtedly space for policy innovation in the area of AI governance. Second, distinct governance models result in substantive disparities in AI policy. Rules that place restrictions on the use of AI and require regulatory supervision of its use are always included in nations that have embraced models based on AI regulation. From a substantive standpoint, this strategy directly affects new areas of AI application, including consumer goods, and has major ramifications for the application of AI in regulated industries, like banking and legal services. On the other side, industry-led approaches with legislative goals aimed at promoting AI development and economic opportunity are usually the result of the *laissez-faire*, self-regulated paradigm that is popular in the US. In this model, consumer protection and marketplace protections are, at most, a secondary concern. It will be very

---

[338] H.A. ÜNVER, (2024). *Artificial Intelligence (AI) and Human Rights: Using AI as a weapon of repression and its impact on human rights*.

[339] V. KULOTHUNGAN, D. GUPTA, *Towards Adaptive AI Governance: Comparative Insights from the US, EU, and Asia*, 2025.

[340] M.A. GEIST, *AI and International Regulation*, in *Artificial Intelligence and the Law in Canada*, LexisNexis Canada, Toronto, 2021.

challenging to reconcile these disparities in a global marketplace if the goal is to move beyond abstract ideals that are unlikely to be put into practice. Third, the developed world now dominates international regulation of AI[341]. Even while the work is commonly described as "global", the vast majority of it is really carried out without the active involvement of emerging economies in the Global South. This presents long-term policy concerns as well because it implies that viewpoints from numerous nations that will be directly touched by the ensuing policies will not be included, even if common principles and policies can be identified[342]. In addition to encouraging innovation, mechanisms like algorithmic impact bonds, ethics stress testing, and modular legislation offer adaptable protections against new hazards associated with AI. Facilitating cross-border collaboration requires international harmonization initiatives, such as mutual recognition agreements and common AI documentation processes. Predictive regulatory models, which use AI to foresee policy loopholes and maximize monitoring, must be a part of future AI governance. To make sure governance strategies are in line with industry demands and public ideals, more research should be done on the relationship between AI ethics, cultural trust dynamics, and economic trade-offs. This study establishes the foundation for a robust, internationally coordinated AI regulatory ecosystem that upholds moral standards while facilitating technological advancement by combining regional strengths into a single, adaptable governance strategy[343]. Even though the US may appear to be lagging behind its EU competitors, US businesses involved in AI nonetheless need to be mindful of certain pertinent regulations. Furthermore, as the GDPR demonstrates, international action on these issues frequently spurs comparable laws in the United States and other nations [344]. The upcoming AI Code of Conduct, which was recently discussed at the U.S.-EU Trade and Tech Council (TTC), represents some initial collaboration between the US and the EU. While waiting for more permanent, long-term legislation, the EU demanded at the TTC that an AI Code of Conduct be swiftly drafted for companies

[341] *Ibidem.*

[342] *Ibidem.*

[343] V. KULOTHUNGAN, D. GUPTA, *Towards Adaptive AI Governance: Comparative Insights from the US, EU, and Asia*, 2025.

[344] I. BENIZRI, A. EVERS, S. MERCER, A. JESSANI, *A Comparative Perspective on AI Regulation*, in «Lawfare», 2023.

to voluntarily abide with[345]. Given that he was "intensely focused on what [the U.S. and EU] can do together to address both the opportunities and challenges posed by emerging technology" it was evident that U.S. Secretary of State Antony Blinken was open to working with the TTC. Through the establishment of expert groups examining AI terminology and taxonomy, collaboration on AI standards, tools, and risk management, and the monitoring and measurement of AI risks, the TTC also enabled the continued implementation of the Joint Roadmap on Evaluation and Measurement Tools for Trustworthy AI and Risk Management. It's also important to note that the TTC no longer includes the UK following Brexit, which means Sunak's administration can only respond to policies set by the US and the EU rather than actively influencing them[346].

It's also critical to remember that the EU AI Act has extraterritorial reach, much as the GDPR. As a result, while searching for a pertinent legal framework, U.S. and foreign businesses may eventually have to turn to the EU AI Act by default (which may also help lessen their compliance risk). It's unclear if there will ever be a real international norm for regulating AI. However, in the lack of a clear legislative framework, organizations may discover that they squandered time if they decided to postpone developing AI risk mitigation techniques. Companies can effectively prioritize implementing standards that are relevant to their operations and likely to be a part of future regulatory regimes by keeping an eye on the quick creation of international codes of conduct and other interim standards[347]. Global politics[348] will be significantly impacted by AI in the years to come. There are a number of significant ramifications for democratic states, even while no one cohesive policy solution can fully handle a problem this intricate and multidimensional. Generally speaking, developed democracies ought to acknowledge more clearly the serious danger that artificial intelligence (AI) presents to free and fair political processes. There are significant long-term hazards associated with China's attempts to develop advanced AI capabilities and its transfer of such technology to other authoritarian

---

[345] *Ibidem.*

[346] *Ibidem.*

[347] *Ibidem.*

[348] S. FELDSTEIN, *The Road to Digital Unfreedom: How Artificial Intelligence is Reshaping Repression*, in «Journal of Democracy», 30(1), 2019, pp. 40-52.

governments. Opposition to these attempts, both domestically and internationally, should be given far more prominence by Western policymakers[349]. Authoritarian governments are not the only ones that abuse AI technology. Democratic governments must decide what constitutes a reasonable limit on the use of new technologies that significantly expand their monitoring and surveillance powers. Democracies need to examine themselves and take the initiative to create their own regulatory structures. Because technological advancements frequently outpace authorities' capacity to create sensible norms and procedures, such a process will be chaotic. However, developed democracies are best suited to think about ways to control private businesses and stop misuse[350]. International action should be supplemented by domestic initiatives to provide more transparent frameworks for the application of AI. A helpful model is provided by initiatives like the UN Guiding Principles on Business and Human Rights. A multi-stakeholder method that is inclusive, adaptable enough to take into account new technological developments, and impervious to capture by China or other authoritarian regimes will be necessary to develop international rules on AI technology. Additionally, a far more thorough normative discussion is required. Numerous problems pertaining to algorithmic bias, implicit discrimination, and privacy remain unresolved by the international community. Last but not least, democracies ought to think about how to improve civil society's ability to resist repression driven by AI and to influence rules for its application. More funding, training, and technology assistance will be needed for local civil society groups (CSOs) functioning in oppressive contexts. Although many of these groups have moved online, they are not making use of commonly accessible digital security solutions, such encryption services. They are therefore at serious risk from cyberattacks, intrusions, monitoring, and surveillance[351]. The main task for CSOs working in democracies is to keep a close eye on new rules, draw attention to infractions resulting from the improper use of AI, and act as a general watchdog. Governments' usage of AI technology is significantly changing as a result of investigations like ProPublica's

---

[349] *Ibidem.*

[350] S. FELDSTEIN, *The Road to Digital Unfreedom: How Artificial Intelligence is Reshaping Repression*, in «Journal of Democracy», 30(1), 2019, pp. 40-52.

[351] *Ibidem.*

discovery of algorithmic implicit bias in the US criminal justice system. The need for such work will grow as more and more governments use AI platforms. Civil society groups must have a significant voice in discussions about appropriate AI regulation on a global scale. As mentioned before, AI technology has "dual-use" capabilities, meaning it can be used for both constructive and oppressive objectives. However, this technology cannot be easily divided into "harmful" and "beneficial" categories. In the same way that democratic or commercial actors might use the services that benefit from automation for good, authoritarians can use them for evil. Building stronger ties between the policy community and engineers and researchers will be essential to ensuring that AI is used properly[352]. To put it another way, applying and respecting human rights standards should be a shared obligation among those in charge of creating, developing, and deploying AI systems. To ensure that everyone is aware of possible abuses of AI and can create suitable remedies early on, policy experts should have frequent, open discussions with engineers and technologists[353]. In conclusion, a paradigm shift in legal reasoning and regulatory methodology is required for the governance of AI in business settings. It calls for a careful balancing act between encouraging innovation and guaranteeing responsible development, as well as between utilizing AI's transformational potential and defending fundamental rights and social values. The legal system must develop to offer precise rules and strong safeguards, all the while being adaptable enough to take into account the rapidly changing landscape of AI technology. Creating a logical and practical legal framework that can handle the intricacies of AI-driven business decision-making will be the problem facing corporate law and governance in the ensuing decades. This will require a comprehensive rethinking of the relationship between corporations, technology, and society in addition to innovative legal and regulatory measures. The ultimate objective must be to use AI to boost business productivity and creativity while making sure that its creation and application are morally righteous and advance the general

[352] *Ibidem.*

[353] *Ibidem.*

welfare. In the era of artificial intelligence, striking this balance will be essential to determining how corporate law and governance develop in the future[354].

[354] S. MIRISHLI, *The Role of Legal Frameworks in Shaping Ethical Artificial Intelligence Use in Corporate Governance*, 2025.

CHAPTER THREE

NAVIGATING THE LEGAL SCENARIO OF AI-GENERATED MUSIC: CASE STUDY AND CHALLENGES

SUMMARY: **3.1** *Generative AI in the Music Industry: A new era of creativity?;* **3.2** *The legal landscape of AI-generated music: Challenges and Opportunities*; **3.3** *Authorship on Autopilot: How AI-Made Music Is Rewriting Copyright Rules*; **3.4** *Mic Drop or Job Drop? Music Labels Confront the Rise of AI-Generated Content;*

3.1 *Generative AI in the Music Industry: A new era of creativity?*

In the music business, generative AI complements human creativity rather than takes its place. Over the past few decades, technology has completely changed how music is composed, recorded, and produced. The application of artificial intelligence in music composition is one example of a long-standing technological and musical convergence[355].

AI tools have the ability to generate novel concepts, present novel viewpoints, and investigate imaginative avenues that people could not have thought of on their own. The results of this collaboration may be more inventive and varied. Additionally, it reduces entrance hurdles, enabling anybody to create excellent songs for the music industry even if they lack conventional artistic abilities. It also tackles the problem that bringing innovative ideas to life frequently necessitates funding, which is hard to obtain without access to resources and industry networks. A wider spectrum of people, including those with impairments or limited access to formal education in creative disciplines, can now access creativity thanks to AI's tools. By increasing the variety of voices in the creative business, this inclusivity is viewed as a societal good. Moreover, it fosters innovation by facilitating quick iterations, experimentation, and prototyping-all of which can lead to quicker discoveries. Artificial intelligence frees up human producers to concentrate on

[355] S. NICHOLLS ET AL (*S. Cunningham*, *R. Picking*), *Collaborative Artificial Intelligence in Music Production*, in *Proceedings of the Audio Mostly 2018 on Sound in Immersion and Emotion*, 2018, pp. 1-4, disponibile online al link: https://dl.acm.org/doi/pdf/10.1145/3243274.3243311 [ultimo accesso 5 febbraio 2025].

more complex conceptual work and experiment with new creative mediums by automating monotonous jobs[356]. It is unrealistic and unproductive to oppose AI's inevitable evolution and growing effect on the creative process. At the moment[357], there are two different approaches to the development of generative AI tools: one strives for fine-grained human creative control, while the other advances toward complete AI-driven content automation. AI democratizes creativity by making tools and resources more widely available, but it also runs the risk of commodifying creativity, turning artistic expression into a standardized, mass-produced good. Making sure that both results can coexist in the healthiest way possible while retaining accessibility and the distinctiveness of human-driven artistry is the difficult part of this situation[358]. Instead of reducing creativity to automated algorithmic outputs, we should support AI models that genuinely grant humans complete creative autonomy, improving personal expression. This is an ontological issue rather than merely a technological one: creating tools that give people complete creative control over AI-generated material is essential to satisfying basic human desires like connection and self-actualization. We run the risk of losing the pleasure of self-expression, the satisfaction that comes from creating something wholly original, and the capacity to engage with people in truly original and significant ways if creativity is reduced to simple automation[359]. As a result, it is imperative to promote generative AI tools that enhance and complement human creativity rather than supplant or replace it. These resources ought to enable people to experiment with novel ways of expressing themselves while maintaining the genuineness, passion, and uniqueness that characterize human creativity. Artists now have access to new generations of algorithmic technologies. These technical intermediaries, which are based on the most recent advancements in machine learning and depend on access to previously unheard-of levels of data and processing power, are paving the way for novel kinds of production. Generative methods can be automatically learned from a corpus of training samples,

---

[356] F. DONELLI, *Generative AI and the Creative Industry: Finding Balance Between Apologists and Critics*, in «Medium», 12 marzo 2024, disponibile online al link: https://medium.com/@fdonelli/generative-ai-and-the-creative-industry-finding-balance-between-apologists-and-critics-686f449862fc [ultimo accesso 27 marzo 2025].

[357] *Ibidem.*

[358] *Ibidem.*

[359] *Ibidem.*

rather than relying on a set of artificial rules to create original artwork. From jazz improvisations to baroque polyphony, musical elements can be identified and stored in a statistical model with little to no human input, and then utilized to create fresh compositions. Many basic issues about copyright protection are brought up by the introduction of such creative tools and the resulting disappearance of the human in the creative process[360]. Nowadays[361], recording music "in the box" using a computer has replaced the need of pricey commercial recording studios. This eliminates the need for a lot of outboard equipment and studio space. This pattern has followed a broader trend in the music industry where consumers now have access to a greater variety of music and high-quality recorded music is easier to duplicate and share thanks to the growth of the Internet. In certain situations, a commercial record produced at home would be identical to one produced in a professional studio due to the advancements in technology that can now be used to create records without the need for professional studio equipment. This implies that a musician might quickly and affordably develop a musical concept from its inception to its final form, all without consulting anybody else[362]. In recent years, there have been many discussions about artificial intelligence creating music that is on par with human compositions. The recently [363]released album by YouTube phenomenon Taryn Southern, appropriately named "I AM AI", was hailed as "the first of its kind to be fully composed with and totally produced by AI". A year prior, Sony's FlowMachine software produced the Beatles-inspired pop tune "Daddy's Car", which was played on radios and in concert halls. A deeper undercurrent may be concealed by what appears to be just another craze taking advantage of the present AI hoopla. Beyond the blatant sensationalist claims, the musical community is already embracing new technologies that are altering the creative palette that both professional and amateur musicians can use. Consequently,

---

[360] J.-M. DELTORN, F. MACREZ, *Authorship in the Age of Machine Learning and Artificial Intelligence*, disponibile online al link: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3261329 [ultimo accesso 5 febbraio 2025].

[361] S. NICHOLLS ET AL (*S. Cunningham*, *R. Picking*), *Collaborative Artificial Intelligence in Music Production*, in *Proceedings of the Audio Mostly 2018 on Sound in Immersion and Emotion*, 2018, pp. 1-4, disponibile online al link: https://dl.acm.org/doi/pdf/10.1145/3243274.3243311 [ultimo accesso 5 febbraio 2025].

[362] *Ibidem.*

[363] *Ibidem supra note 352.*

new types of algorithmic compositions are emerging that incorporate automation techniques based on the most recent advancements in computer science into the center of the creative process. It should not be surprising that music is adopting the newest technology advancements as soon as they are made available, more so than any other artistic discipline[364]. From Raymond Scott's Clavivox keyboard synthesizer and Robert Moog's Voltage-Controlled Electronic Music Modules in the 1950s and 1960s to Maurice Martenot and Leo Theremin's early electroacoustic experiments or Beauchamp and Rickenbacker's electronic guitar pick-ups in the 1930s that capitalized on the development of vacuum tube amplifiers, the incorporation of technological advancements has been the source of new sounds, new expressive forms, and has frequently paved the way for the creation of entirely new musical genres[365]. By incorporating methods from the emerging science of machine learning, composers tried to overcome the limits of these early generations of procedural works (where the computer followed a set of rules predetermined by the musician) in the 1980s. Without the need for an explicit and frequently laborious elicitation of the principles necessary to do so, these statistically grounded methodologies enable learning directly from data and solving particular issues. According [366]to Rebecca Fiebrink and Baptiste Caramiaux, these methods work best when «the desired application is too complex to be described by analytical formulations or manual brute force design ». This description is undoubtedly indicative of the creative process involved in music. As a result, neural network architectures—one of the first prominent contenders for machine learning techniques—were quickly employed to create musical compositions and to improvise melodies and beats in a jazz ensemble. Deep learning techniques can be used to mix and combine many materials from a variety of styles in innovative and frequently surprisingly believable syncretic compositions. They are not just confined to imitating the styles of pre-existing composers. The works of

---

[364] S. NICHOLLS ET AL (*S. Cunningham*, *R. Picking*), *Collaborative Artificial Intelligence in Music Production*, in *Proceedings of the Audio Mostly 2018 on Sound in Immersion and Emotion*, 2018, pp. 1-4, disponibile online al link: https://dl.acm.org/doi/pdf/10.1145/3243274.3243311 [ultimo accesso 5 febbraio 2025].

[365] *Ibidem.*

[366] J.-M. DELTORN, F. MACREZ, *Authorship in the Age of Machine Learning and Artificial Intelligence*, disponibile online al link: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3261329 [ultimo accesso 5 febbraio 2025].

Sony's FlowMachine are undoubtedly among the most noteworthy productions. The machine learning system can produce rich melodies that blend and match a number of musical genres since it is based on a large corpus of over 13,000 lead sheets from a variety of sources, including jazz, pop, and Brazilian music. Furthermore, an underlying artistic style that was learnt from a training corpus can now be applied to secondary work by several types of neural networks[367]. Then, these generative engines can investigate queries like "what would it sound like if a musical piece by ensemble/artist A was performed by ensemble artist B?" or of converting, for example, "a Mozart symphony performed by an orchestra to an audio in the style of a pianist playing Beethoven". Undoubtedly, these new methods allow both seasoned composers and inexperienced amateurs to explore creative possibilities in previously unexplored areas. Indeed, an increasing number of businesses, including Jukedeck, Amper, Orb, and Hexachord, already provide digital tools that enable anyone to compose music, even those with no prior musical training, to the extent that "AI music composers may inspire millions of music consumers to start creating their own songs"[368]. Beyond the capacity of the most prolific human composers, the automation of the creative process paves the door for the mass creation of artwork. The 50,000 folk pieces created by Bob Sturm's "The Endless Folk-Traditional Music Session" or the database of one billion original songs automatically generated by Melomics 109, the music generation program created by the University of Malaga in Spain, would dwarf J.-S. Bach's thousand cantatas. Furthermore, the same algorithmic platforms provide new modalities of musical production, not just by automating the creative process, but also by facilitating various forms of communication between the musician and the machine or by providing access to previously untapped sources of inspiration[369]. Deep neural network compositions[370] served as the basis for the Mark d'Inverno Quintet's performance at the Vortex Jazz Club in London on September 27, 2016. «Even if you don't think machines can be creative by themselves, they can potentially be creative friends» d'Inverno said,

---

[367] *Ibidem.*

[368] *Ibidem.*

[369] *Ibidem.*

[370] J.-M. DELTORN, F. MACREZ, *Authorship in the Age of Machine Learning and Artificial Intelligence*, disponibile online al link: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3261329 [ultimo accesso 5 febbraio 2025].

highlighting the possibility of novel interactions between algorithmic inventions and human interpretation. As a critical, creative collaborator, you can picture yourself conversing with a machine that provides prompts. Without a doubt, since AI developed quickly, many sectors began implementing it in their operations due to the advantages the technology provides. As previously stated, AI can help both professional and amateur artists be more creative in their musical endeavors[371]. Furthermore, because they express interest in learning more about AI's potential, musicians are open to incorporating technology into their work or production process. To create a piece of music, a variety of creative decisions must be made during the composing process. Harmony, melody and texture, as well as instrumentation and orchestration, are regarded as essential components in the creation of music. Some of the most popular neutral network [372]architectures are used to create and compose music, such as Transformers, Variational AutoEencoders (VAEs), and Generative Adversarial Networks (GANs). The latter can generate a wide range of musical melodies and harmonies for different genres because they are trained using a discriminator and a generator. A discriminator model's job is to determine whether or not the samples are generated by the generator, whereas a generator model's job is to transform the input data into samples that are simply indistinguishable from real melodies. These networks are frequently utilized in music creation because they may produce compositions that sound familiar to the audience by analyzing pre-existing musical structures and offering creative melodies that defy genre conventions. The encoder and decoder combination that makes up the VAE model transforms input data in a so-called latent space, while the decoder's job is to turn it into reconstruction data. Following this training phase, the model experiences a reconstruction loss; nonetheless, it enables the network to sample the data and subsequently generate new pieces that are comparable to the original data[373]. The VAE paradigm is more convenient because the beginning data can be anything from text to graphics or sound. Conversely, the network is constrained by the scope of the input data, but it can generate a vast array of musical compositions due to its training limitations. In the future, transformer networks are

[371] K. NOVIKOVA, *Future of Artificial Intelligence in Music Industry: The Connection Between Generative AI and Music Production*, 2024.

[372] *Ibidem.*

[373] *Ibidem.*

models that likewise use encoder and decoder combinations, but they generate multi-instrumental musical segments by using an attention mechanism. Allowing the network to concentrate on a piece of information that is more important to the issue it is now addressing is known as an attention mechanism[374]. Three components make up multi-head attention: encoder-decoder attention, encoder self-attention, and decoder self-attention. Transformer models are regarded as one of the greatest instruments for producing longer chains of musical compositions because of the attention process but training them requires a significant amount of data. Furthermore, artificial intelligence can create poetic writings in addition to melodies and chord progressions. In addition to being grammatically correct, the generated lyrics must also fit the specified tune and the selected musical style in order to be deemed good[375]. Additionally, the lyrics' originality and usefulness are assessed. For example, LyricJam Sonic is a music application that uses two neural networks to generate streams of lyric text and musical compositions. Furthermore, it may function both independently and in collaboration with actual musicians. Compared to basic text production, lyrics generation is a more complex and diverse process since it requires consideration of various elements, including rhythm, pitch value, syllabic base, and others. Lyrics can also be generated using language models like GPTs and its variants. Generative AI can be useful not just during the recording and production phases of music, but also during live performances by musicians. Indeed, in many generative AI systems, the neural network is in charge of controlling the controller interface, enabling it to replicate the performer's movements and carry on the live performance. Nonetheless, the lead musician has the ability to monitor the system's steps and control the network's activities[376]. Another tool that can be used to direct and enhance live performances is LyricJam Sonic, which is trained to create music flow in real time by analyzing an artist's melodies. By providing unique sound patterns, the device also facilitates the user's ability to discover inspiration during a live performance. We can conclude that AI music technologies are intended to improve music instruments,

---

[374] K. NOVIKOVA, *Future of Artificial Intelligence in Music Industry: The Connection Between Generative AI and Music Production*, 2024.

[375] *Ibidem.*

[376] *Ibidem.*

enhance interactive performance, facilitate real-time collaboration, and process sound while performing. Through contact with the artists, AI adapts to the dynamics of the performance and improves it; additionally, it can create live music and use digital effects to enhance the traditional sound of musical instruments. Last but not least, AI is frequently used in live performances to enhance the audience's experience by offering higher-quality sound processing and music mixing[377].

3.2 *The legal landscape of AI-generated music: Challenges and Opportunities*

The creator has the sole right to reproduce, distribute, perform, exhibit, and provide licenses for their work thanks to copyright. This implies that using, duplicating, or distributing the copyrighted content usually requires authorization from others. When a work is created, copyright protection is automatically granted and usually lasts for the lifetime of the creator plus a predetermined number of years. Although there are exceptions and variances, copyright protection in the majority of developed nations typically lasts for the author's lifetime plus an additional 70 years, however this varies by jurisdiction. Unauthorized music sharing and uploading are among the unique copyright protection issues brought on by the internet. Copyright protection does not need copyright registration, but it does offer some advantages, like allowing the owner to sue in federal court. If their work is violated, copyright holders may take legal action to protect their rights[378]. Original works are granted rights by the United States' 1976 Copyright Act. "[379]Original works of authorship fixed in any tangible medium of expression" are

[377] *Ibidem.*

[378] V. PUJARI, B. WILSON, *Copyright and Authorship in AI-Generated Music*, in «Journal of Emerging Technologies and Innovative Research», 10(12), 2023, pp. 351-354.

[379] H. JUZON, *Fake Drake? AI Music Generation Implicates Copyright and the Right of Publicity*, in «Washington Law Review», 99, 2024, p. 987.

protected by copyright. The work must be an independent invention with some degree of ingenuity in order to satisfy the originality requirement. Literary works, musical works, including any accompanying words, dramatic works, including any accompanying music, pantomimes and choreographic works, pictorial, graphic, and sculpture works, motion pictures and other audiovisual works, sound recordings, and architectural works are among the eight copyrightable subject matters listed in the Act. A work must be "sufficiently permanent or stable to permit it to be perceived, reproduced, or otherwise communicated for a period of more than transitory duration" in order to be fixed in a physical medium. In these concrete forms, copyrightable content must be an original expression rather than just a concept. Music is protected under the Copyright Act as "sound recordings" and "musical works". While sound recording rights pertain to recorded performances, the statute's protection for musical compositions include the underlying musical composition. Melody, harmony, rhythm, and any accompanying lyrics are all components of musical works. Composers and music publishers are usually the owners of musical works for copyright purposes[380].The violation of fixed sounds, which is a major burden for recording artists and performers, is prevented by copyright protection for sound recordings. "Works that result from the fixation of a series of musical, spoken, or other sounds" are what sound recordings are. Copyright protects the sound that a performer creates when they sing, play, or arrange a piece of music. Sound recording rights holders, who are frequently the record label that an artist signs a contract with, are granted protections for their creations, including the sole right to reproduce these recordings. Sound recordings and musical compositions are frequently owned independently. If a songwriter writes a song, for instance, they may be able to get a copyright for that piece of music. Another musician may be able to secure a copyright for their particular recorded performance as a sound recording if they decide to record the same song. Thus, several copyright holders are frequently involved in a single piece of music[381].Within the context of the music industry's ethical and legal framework, ownership of AI-generated music is a complicated and multidimensional issue. Questions of who owns the finished compositions have become more important as AI technologies

[380] *Ibidem.*

[381] H. JUZON, *Fake Drake? AI Music Generation Implicates Copyright and the Right of Publicity*, in «Washington Law Review», 99, 2024, p. 987.

are incorporated into music creation and production more and more[382]. These new algorithmic tools undoubtedly present important issues regarding the protection regime that these performances may come under because they provide new paths for the creation of musical works, whether they are performed live or in a studio. Since "emulating intelligent behavior in terms of computational processes" is a common denominator of "AI" systems, part of the natural person's cognitive and, in this case, creative decisions may have come from the algorithm. The individual contribution of the composer or musician to the finished piece may be directly impacted by this takeover by the automaton of the creative process[383]. Is copyright protection available for such automated creations? If the machine participates in the creative process, who is the author? What guidelines should be followed when defining the boundaries of ownership in deep-generative art? Then, what is the bare minimum needed to be granted authorship? Do all musical creations that are produced mechanically or partially automatically qualify for copyright protection? It will be necessary to first look at the requirements of protection, specifically the manifestation of an imprint of the authors' intent in the expressed musical form, before examining whether the author's presence prevents the generative algorithms from acting as an intermediary[384]. The subject is particularly difficult since it focuses on instances in which computers collaborate with people to create rather than just analyzing fully computer-generated works. In fact, it can be more challenging to determine "who created what" when the artwork is produced via a "algorithmic pipeline" since these new technological bridges make it harder to distinguish between the contributions of humans and machines. For copyright assignment, where authorship is the product of a natural person's original contribution, it is crucial to separate the inputs of the AI automaton from those of the human inventor[385]. Although AI control's ambiguity can foster creativity, it also begs the question of how much human interaction is necessary for a piece to qualify

---

[382] C. GREYSON, *Regulatory Challenges and Ethical Considerations of AI-Generated Content in the Music Industry*, disponibile online al link: https://ssrn.com/abstract=5125914 [ultimo accesso 5 febbraio 2025].

[383] J.-M. DELTORN, F. MACREZ, *Authorship in the Age of Machine Learning and Artificial Intelligence*, disponibile online al link: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3261329 [ultimo accesso 5 febbraio 2025].

[384] *Ibidem.*

[385] *Ibidem.*

as human-authored. Ownership issues may result from this ambiguity, especially if the AI makes a significant contribution. Since any funds attributed to ownership would go straight to the Developer, AI should be regarded as an AI Developer for the sake of clarity in this situation[386]. Furthermore, roughly 60% of musicians employ AI in some capacity during the creation of their music, demonstrating the pervasiveness of this practice. This broad adoption emphasizes the necessity of precise ownership regulations. The authors point out that knowledge of the nature of human-AI co-creation is essential for guiding interface design and ownership rights as AI systems are increasingly included into professional music ecosystems[387]. Several important tools within the European legal system handle these issues. Unauthorized use of protected works in the training or output stages of generative AI may affect the exclusive rights of reproduction and public communication granted to authors by Articles 2 and 3 of the InfoSoc Directive (Directive 2001/29/EC)[388]. The Copyright in the Digital Single Market Directive[389] (Directive (EU) 2019/790) has brought about other advancements. Article 17 in particular drastically changes the liability regime for online content-sharing service providers. Unless they obtain licenses from rights holders or show that they have taken reasonable steps to prevent unauthorized content from being uploaded, platforms like SoundCloud and YouTube are now directly liable for copyright violations committed by their users. Furthermore, the same directive's Articles 14 and 16 uphold authors' rights by ensuring that they receive fair compensation and have access to comprehensive information about how their works are being used. In the context of AI-generated music, where automated

---

[386] C. GREYSON, *Regulatory Challenges and Ethical Considerations of AI-Generated Content in the Music Industry*, disponibile online al link: https://ssrn.com/abstract=5125914 [ultimo accesso 5 febbraio 2025].
[387] *Ibidem.*

[388] EUROPEAN UNION. (2001) *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 (InfoSoc Directive)*. Official Journal of the European Communities, L 167, pp. 10–19.

[389] EUROPEAN UNION. (2019) *Directive (EU) 2019/790 of the European Parliament and of the Council of 17 April 2019 on copyright and related rights in the Digital Single Market and amending Directives 96/9/EC and 2001/29/EC (CDSM Directive)*. Official Journal of the European Union, L 130, pp. 92–125.

systems are progressively undermining the role of human writers, these provisions are especially pertinent as they seek to reestablish equilibrium in the digital environment[390].

Case studies offer insightful information about how musicians deal with ownership concerns while utilizing AI. In one study, for example, musicians composed music in a variety of genres using an AI plugin, recording their creative process and considering the use of AI. According to these observations, musicians frequently incorporate AI outputs into their compositions in ways that suit their artistic vision. It appears from this selective use of AI-generated content that musicians see AI as an additional tool and themselves as the main creators. Additionally, ownership is made more difficult by the collaborative nature of AI-generated music. The division of labor between human musicians and AI systems varied greatly in a study where several teams used AI in their creative process. Different perceptions of ownership resulted from teams having to choose which parts of the music to compose by hand and which to employ AI for. This cooperative relationship emphasizes the necessity of precise contracts and rules to guarantee equitable ownership rights distribution[391]. AI is not recognized as an author by current laws[392]. Originality is required by copyright, however AI music frequently uses pre-existing data sets and algorithms, making originality difficult to define. Limited unapproved use of copyrighted content is permitted under fair use. The application of this theory to AI-generated music is questionable, nevertheless, particularly when it comes to training data or new compositions[393]. The Berne Convention's Article 2 § 1 does not restrict the protection of artistic works and gives national jurisdictions the authority to define the minimal requirements that a work must fulfill in order to be protected by copyright[394]. A copyrightable work should be the result of an author's creative endeavors rather than a

---

[390] EUROPEAN UNION. (2019) *Directive (EU) 2019/790 of the European Parliament and of the Council of 17 April 2019 on copyright and related rights in the Digital Single Market and amending Directives 96/9/EC and 2001/29/EC (CDSM Directive)*. Official Journal of the European Union, L 130, pp. 92–125.

[391] *Ibidem.*

[392] V. PUJARI, B. WILSON, *Copyright and Authorship in AI-Generated Music*, in «Journal of Emerging Technologies and Innovative Research», 10(12), 2023, pp. 351-354.

[393] *Ibidem.*

[394] J.-M. DELTORN, F. MACREZ, *Authorship in the Age of Machine Learning and Artificial Intelligence*, disponibile online al link: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3261329 [ultimo accesso 5 febbraio 2025].

simple replication of an already-existing work, according to an accepted criterion. This idea serves as the foundation for the requirement of originality, which is a necessary condition for a work to be protected by copyright. The interpretation of this concept has been left to the courts since national laws lack a clear definition. More generally, it makes sense that a human author is meant when the Berne Convention uses the terms "author" or "authorship". The current view of intellectual property as a basic right is in line with this analysis. Because of this, it is clear that the creator must be a human. Therefore, when an algorithmic process that imitates or enhances some of the creative qualities of human artists participates in the creation of an artwork, the challenge will be identifying the putative author[395]. Music produced by artificial intelligence (AI) may be protected under UK law as "generated by computer in circumstances that there is no human involvement". It doesn't, however, indicate AI-generated music. However, according to the U.S. Copyright Office, "the terms 'author', used in both the Constitution and the Copyright Act, exclude non-humans", and thus "does not recognize AI as an author "under existing law[396].

Since there is no copyright holder for music produced by AI models, the tech and music industries would support these activities that exploit composers' unprotected originality. While their earnings would increase through the exploitation of music and lyrics created by unidentified creators, these entertainment companies might use the AI-generated music for free or at drastically reduced costs[397]. The protection gap may, in fact, lead AI developers to make poor business choices. An unaffiliated independent musician and an AI developer could sign a contract wherein the latter's songs are incorporated into the AI platform. The musician can feel unique and think that his real contributions will affect the composition. However, when things go awry, the musician feels as though his gift has been taken advantage of without compensation. Legislative action is required to properly shape the incentives for stakeholders, even though these are purely conjectural.

---

[395] *Ibidem.*

[396] V. PUJARI, B. WILSON, *Copyright and Authorship in AI-Generated Music*, in «Journal of Emerging Technologies and Innovative Research», 10(12), 2023, pp. 351-354.

[397] S. CANYAKAN, *The Role of AI in Creative Processes: Ethical and Legal Perspectives in the Music Industry*, in «Journal of Music Theory and Transcultural Music Studies», 2024, pp. 143-158.

Assignment and licensing issues have also generated a lot of discussion. If so, with whom and to what degree might an AI model have exclusive rights? Who is able to purchase and sell these rights? Can humans even agree on data produced by non-human entities that the parties are attempting to imitate but are utterly unsuccessful at doing so? Who would be bound by the terms of the contract when an AI system is one of the parties? Practical challenges also exist[398]. If the parties decide to develop the legal documents, they will have to deal with the difficulty of transferring ownership that is "secured to an individual" in the event that the AI produces thousands of musical compositions in a single day. Such contractual drafting may be ineffective and, more specifically, slow down the writing process, which may cause artists to miss out on commercial prospects. A piece of authorship is given privileges by copyright law, which communicates the author's ownership and provides legally protected incentives to produce it. This is initially problematic while listening to music produced by artificial intelligence. Usually a machine-learning algorithm, this digital music maker creates, performs, and distributes sounds automatically[399]. Based on the aforementioned analysis, AI violates fundamental requirements to be the object of copyright. AI cannot be an author because it is not a human. It is not creative, and it is not protected. As a result, generative music presents significant moral and legal issues. They address the standards by which AI-generated music can be recognized as a musical composition, establishing the upper bound at which primary, secondary, and associative authorship can be assigned to AI. Specifically, should AI be granted the rights to the music it creates if it learns to compose from a copyright corpus, so gaining creative autonomy? How will music produced by AI compare to that produced by humans? Will human music have a chance in the competition if it is effectively marketed to the general public? Regarding the first problem, the remedy should distinguish between significant elements of music creation and interests that are safeguarded by the same laws[400]. In light of this, legislators and judges must safeguard people's reasonable expectations should artificial intelligence undermine them commercially. This could also be accomplished by defining and discussing a typology of usage rights based on the genre of music that AI-conceived music falls into. In this way,

[398] *Ibidem.*

[399] *Ibidem.*

[400] *Ibidem.*

the reality of human-computer competition in the music industry appears to be better reflected by a descriptive approach to the problem. Because creators and tech businesses must acquire the requisite licenses, the use of AI in music production may need a review and rethink of traditional mechanisms for licensing music and related rights[401]. Regulation is required for the input, the creative work, and the financial compensation that come from this kind of cooperation. If not, shareholder conflicts could result from disputes over the creators' compensation and/or acknowledgement of their contributions. Given the resulting ethical and financial ramifications of AI in music, the identity of the author must be established. Editors anticipate precise instructions and definitions about the handling of AI-generated music. There are clearly specified standard terms that one side must accept because contract terms in free market economies are typically quite varied. If not, definitions must be developed to let the parties decide when and how to discuss the terms of transfer and the authors' compensation for works produced by AI. Each national law will determine this legal provision. There are already differences in how the Redistribution Right is used, the subject matter of the dispute, and the resolution of the disputes[402]. Depending on the country and sector, registration regulations will also need to be revisited because of the interdependence between an AI's outputs and the data that has been supplied into it. While updated standards and regulations regarding AI partnership with the music industry are beneficial, it is important to keep in mind how quickly technology is developing and how this is changing copyright laws around the world. Similar to the updated copyright framework, the AI Regulation Proposal should provide guidelines to guarantee the adaptability of the licensing system[403]. The majority of companies that currently issue and manage collective license rights have made investments in creating thorough policies and procedures as well as keeping an eye on their progress. Due to technological advancements in all sensory domains, copyright management organizations around the world should begin negotiating recently updated standard licensing contracts. Working together with stakeholders in the creative sector is

---

[401] S. CANYAKAN, *The Role of AI in Creative Processes: Ethical and Legal Perspectives in the Music Industry*, in «Journal of Music Theory and Transcultural Music Studies», 2024, pp. 143-158.

[402] *Ibidem.*

[403] *Ibidem.*

essential for developing technical requirements and exchanging data. Their economic and interest stance in license negotiations may be future-proofed by asking licensing questions, as demonstrated by actual history. In fact, it is anticipated that the emergence of a strong ecosystem would eventually make it feasible to use supercomputers to identify sounds and work with humans, complementing the methods and styles of music producers[404]. Although there are rules for determining authorship, opinions on where LLM training datasets come from are far less widely agreed upon. Large volumes of data, frequently from copyrighted sources, are also needed for LLM training[405]. The limits of what constitutes copyright infringement in AI training datasets are being tested by cases such as Concord Music Group v. Anthropic and Anderson v. Stability AI. These court cases highlight the mounting strain on AI firms to handle the murky waters of copyright law[406]. Song lyrics are at the heart of the controversy in Concord Music Group v. Anthropic PBC. According to several major music publishers, Anthropic inappropriately generated and utilized unapproved versions of copyrighted songs to teach an LLM named "Claude". Human-Centered Generative AI (HCAI) adds complexity to this larger perspective of creative generative AI. HCAI seeks to enhance and supplement human capabilities, in contrast to standard AI, which concentrates on task automation. IBM (International Business Machines Corporation) defines the new criteria for the human aspect of HCAI as:

"*human users being responsible for specification, goal-setting, steering, high-level creativity, low-level detail work, and the ability to design at scale*[407]".

This strategy is demonstrated by Suno AI, a firm that uses user-directed music creation to create music in seconds in response to text-based requests. Suno's platform, which has a community of over 12 million members as of May 2024, enables users to compose songs based on a straightforward 120-character suggestion[408]. However, organizations like

---

[404] *Ibidem.*

[405] V. NAYAR, *The Ethics of AI Generated Music: A Case Study on Suno AI*, in «GRACE: Global Review of AI Community Ethics», 3(1), 2025.

[406] *Ibidem.*

[407] *Ibidem.*

Universal Music Group and the Recording Industry Association of America (RIAA) have filed legal challenges against this innovation. Chief Legal Officer Ken Doroshow sees the litigation as crucial for "reinforcing responsible and lawful AI development", while others like RIAA Chairman Mitch Glazier contend that Suno "sets back the promise of genuinely innovative AI for everyone[409]". Suno's reliance on large language models (LLMs), which use vast datasets that frequently contain copyrighted content, is at the center of the dispute. The legality of training on copyrighted content and authorship rights, since machines cannot be considered "authors" under copyright law, are the two main areas in which generative AI models, such as Suno's, violate copyright law. Recent decisions, such Thaler v. Perlmutter, have rejected copyright protection for works made without direct human input, and the U.S. Copyright Office has reiterated that copyright only applies to works created with human creativity. Furthermore, prompts for material generation are like instructions to a commissioned artist: the prompter specifies what they want to be shown, but the computer determines how to incorporate those instructions into its output because users have no control over how the systems interpret the prompts[410]. Analyzing whether AI-generated soundalikes infringe upon the rights of copyright holders requires an understanding of infringement. Interfering with a copyright holder's rights without authorization is known as copyright infringement[411]. Plaintiffs must demonstrate "(A) ownership of a valid copyright; and (B) unauthorized copying of the copyrighted work" in order to establish an infringement claim. In order to determine if a work was "actually copied", a court will look at whether the copied section constitutes "improper or unlawful appropriation" and whether there is a "substantial similarity" between the new work and the copyrighted work. A number of criteria are used by courts to assess whether infringement took place. Either direct or indirect evidence can be used to prove copying. If the defendant has access to the copyrighted work and there are significant similarities between the works that suggest non-independent creation, copying can be assumed in the

[408] *Ibidem.*

[409] *Ibidem.*

[410] V. NAYAR, *The Ethics of AI Generated Music: A Case Study on Suno AI*, in «GRACE: Global Review of AI Community Ethics», 3(1), 2025.

[411] H. JUZON, *Fake Drake? AI Music Generation Implicates Copyright and the Right of Publicity*, in «Washington Law Review», 99, 2024, p. 987.

absence of direct evidence[412]. Courts consider if "improper or unlawful appropriation" took place and whether there is a considerable similarity when access has been shown, whether by direct or indirect evidence. An objective extrinsic test and a subjective intrinsic test are needed for this investigation. To ascertain whether protected portions of a work have been replicated, the objective extrinsic test analyzes and contrasts song parts. The work's everyday components are not likely to be copied. According to the subjective intrinsic test, there must be significant conceptual and emotional parallels between the two pieces for an average, reasonable individual to find them. The reproduction right for sound recordings is restricted to works "that recapture the actual sounds fixed in the recording, either directly or indirectly". The actual use of a sound recording that is protected by copyright is an infringement. The criteria used to assess whether a sound recording has been infringed upon vary[413]. The de minimis exception, for instance, is used by the Ninth Circuit to determine whether "the average audience would not recognize the appropriation". The Sixth Circuit, on the other hand, uses a bright-line approach that considers any sound recording copy, regardless of length, to be stealing something of value. Instead, the Sixth Circuit cautions people to "get a license or do not sample" rather than acknowledging an exception. The topic of copyright rights in light of AI-generated works that follows in this Comment requires a knowledge of infringement[414]. Many attorneys and insiders in the music business think that the right of publicity argument, which draws on laws that prohibit the unapproved use of someone's likeness, may be a stronger defense against AI-generated voices and a way to give artists legal safeguards. With the premise that persons have the right to control their public image and profit from their unique identity, the right of publicity is a state-based intellectual property right that guards against the infringement of a person's name, likeness, or personal identification. A strategy that relies more on resemblance than copyright has a number of advantages[415]. In the first place, it steers clear of open issues regarding the correct application of intellectual property law to AI-generated works. Second, the right of publicity argument

---

[412] *Ibidem.*

[413] *Ibidem.*

[414] *Ibidem.*

[415] G. JABOUR, *Drake or Fake? Perceptions, Concerns, and Business Implications of AI-Generated Vocals*, Tesi di Dottorato, 2024.

relies on state laws already in place. For instance, states like California have established precedents that clearly specify that musical mimicry is a violation of well-known musicians' right to publicity. Lastly, it directly tackles one of the biggest issues facing artists: uninvited imitation. After all, "an artist's likeness is based on their voice", according to Evan Dhillon, founder of the vocal cloning platform Kits.AI. Long before AI voice cloning technology was developed, attempts were made to mimic a well-known voice[416]. The rules typically deal with the use of identifiable features linked to a person or brand-like a person's face, name, or business logo-without getting their permission.

These days, developing a completely new legal structure that deals with AI-generated music is crucial. Determining authorship by acknowledging the AI and the human programmer as co-authors is one way to achieve this. This method recognizes both the AI's autonomous creative contributions and the programmer's part in setting the parameters and training the AI[417]. Determining copyright percentages is an additional factor to take into account. Depending on certain parameters, such the intricacy of the AI algorithm, the volume of human input, and the uniqueness of the produced music, a mechanism might be put in place to calculate the percentage of copyright ownership for each partner. Transparency and open data should also be prioritized, with AI developers being required to reveal the training data and methods that went into making their AI music products. This openness would encourage moral usage, guard against possible plagiarism, and facilitate knowledgeable conversations regarding uniqueness and copyright ownership[418]. Last but not least, clauses pertaining to innovation and public domain access ought to be put in place, guaranteeing that some AI-generated music would eventually become public domain. This would encourage experimentation, remix culture, and additional musical invention. For public domain access, some requirements might be implemented, like a mix of time passed, little human intervention, and an AI contribution that is clearly substantial. For instance, Google YouTube's "Dream Track for Shorts"

[416] *Ibidem.*

[417] V. PUJARI, B. WILSON, *Copyright and Authorship in AI-Generated Music*, in «Journal of Emerging Technologies and Innovative Research», 10(12), 2023, pp. 351-354.

[418] *Ibidem.*

project allows users to use AI to compose music for the platform's 60-second videos. Charlie Puth, T-Pain, SIA, and more artists have contributed to this collaboration[419].

3.3 *Authorship on Autopilot: How AI-Made Music Is Rewriting Copyright Rules*

Different players in the music industry, including artists, consumers, labels, and producers, must strike a balance between technological innovation and the preservation of artists' rights in the quickly changing music ecosystem of today, where artificial intelligence can create synthetic sounds that mimic those of real artists. The extent and complete ramifications of AI-generated vocals in music remain unknown, despite the fact that these technologies present fascinating new possibilities[420]. AI technology could seem like a danger to big artists. An artist's career may suffer from unapproved voice deepfakes since they might dilute the market, ruin their reputation, and confuse consumers. Furthermore, even though a person's voice is essential to their livelihood and individuality, it is not protected by copyright in the United States, which makes it challenging to stop unwanted vocal clones. AI may be embraced by smaller artists as a chance to reach a wider audience, generate new revenue, and interact with their audience. However, it can be argued that smaller artists will suffer more from AI voice clones since they lack the resources to defend themselves against infringement[421]. Copyright may be violated as an input-a copy of a protected work entered into an AI program-or as an output-the new work that is produced-when AI mimics a singer's voice using copyrighted materials[422]. The song "Heart on My Sleeve" became popular on TikTok, YouTube, and

---

[419] *Ibidem.*

[420] G. JABOUR, *Drake or Fake? Perceptions, Concerns, and Business Implications of AI-Generated Vocals*, Tesi di Dottorato, 2024.

[421] *Ibidem.*

[422] H. JUZON, *Fake Drake? AI Music Generation Implicates Copyright and the Right of Publicity*, in «Washington Law Review», 99, 2024, p. 987.

Spotify on April 4, 2023[423]. After snippets of "Heart on My Sleeve" were posted to Ghostwriter's TikTok account, ghostwriter977, the song went viral. The unidentified artist Ghostwriter was seen in the video clips standing in a white sheet and sunglasses. The captions read, "Drake leak or AI??!" and" I used AI to make a Drake song feat. The Weeknd."[424]. Its popularity raised questions about intellectual property rights and caused the music business to become concerned[425].

The song quickly became well-known, receiving over 625,000 Spotify plays, 275,000 YouTube views, and 15 million TikTok views until Universal Music Group (UMG) took it down less than two weeks later[426]. One of the first widely used AI-generated vocals in music, "Heart on My Sleeve" was a breakthrough that caught the interest of both industry leaders and consumers. However, Universal reacted with concern to the widely circulated "fake Drake "song, while listeners reacted with delight, enthusiasm, and disbelief towards the novel usage of technology. In a statement, Universal said: «The training of generative AI using our artists' music (which represents both a breach of our agreements and a violation of copyright law) as well as the availability of infringing content created with generative AI on DSPs [digital service providers], begs the question as to which side of history all stakeholders in the music ecosystem want to be on: the side of artists, fans and human creative expression, or on the side of deep fakes, fraud and denying artists their due compensation[427]». According to Joe Coscarelli, a prominent music reporter for the New York Times, if the song hadn't been taken off from streaming sites, it could have easily made the Billboard Hot 100[428]. Someone had crossed a line. Even if the song's

---

[423] G. JABOUR, *Drake or Fake? Perceptions, Concerns, and Business Implications of AI-Generated Vocals*, Tesi di Dottorato, 2024.

[424] *Ibidem.*

[425] H. JUZON, *Fake Drake? AI Music Generation Implicates Copyright and the Right of Publicity*, in «Washington Law Review», 99, 2024, p. 987.

[426] G. JABOUR, *Drake or Fake? Perceptions, Concerns, and Business Implications of AI-Generated Vocals*, Tesi di Dottorato, 2024.

[427] *Ibidem.*

[428] "*Ghostwriter, the Mastermind behind the Viral Drake AI Song, Speaks for the First Time."* BILLBOARD. October 11, 2023. https://www.billboard.com/music/pop/ghostwriter-heart-on-my-sleeve-drake-ai-grammy- exclusive-interview-1235434099/.

popularity waned, the music industry had to face the prospect that AI would draw in listeners and seriously jeopardize its operations. Ghostwriter's "Heart on My Sleeve" swiftly rose to prominence as one of the year's most significant and contentious music stories after it was uploaded on TikTok[429]. It wasn't the first song, though, to mimic well-known musicians using AI. When TikTok producers started creating their own DIY renditions of well-known songs sung by AI artists, such as AI Rihanna singing Beyoncés' "CUFF IT" or AI Kanye West singing "Hey There Delilah", AI-generated vocals were just a fun curiosity. Although the technology started out as a kind of meme, it hinted at the possible applications for it in the future. Because it seemed to be a brand-new song performed in the style of an established artist rather than a cover of an existing song performed by an established singer, "Heart on My Sleeve" attracted interest from all around the music business. With apparently no boundaries, new releases might be produced and credited to pop singers that are almost identical to their true voices[430]. Would this be the future of music, where anyone could create new music while cosplaying as others? Questions about the technology quickly arose. Who was the owner of the song, and who would be compensated for it? Was there a copyright violation? Were the artists treated fairly? Would anyone be interested in listening to AI music?

"Heart on My Sleeve"[431] exposed the legal ambiguities in the industry and brought attention to the business ramifications of AI in music, posing a risk to labels and artists. Even the chief executive of the Recording Academy, which hosts the Grammy Awards, Harvey Mason Jr., took notice of Ghostwriter. The song impressed Mason, who invited Ghostwriter to participate in a virtual roundtable discussion hosted by the Recording Academy throughout the summer. That song "was going to be something that we had to grapple with from an Academy standpoint, but also from a music community and industry standpoint", Mason stated in an interview. "When you start seeing AI involved in

---

[429] *Ibidem supra note 377.*

[430] G. JABOUR, *Drake or Fake? Perceptions, Concerns, and Business Implications of AI-Generated Vocals*, Tesi di Dottorato, 2024.

[431] RACHEL REED, *AI Created a Song Mimicking the Work of Drake and the Weeknd. What Does That Mean for Copyright Law?*, in «Harvard Law School», 2 maggio 2023, disponibile online al link: https://hls.harvard.edu/today/ai-created-a-song-mimicking-the-work-of-drake-and-the-weeknd-what-does-that-mean-for-copyright-law/ [ultimo accesso 5 febbraio 2025].

something so creative and so cool, relevant and of the moment, it immediately starts you thinking, 'OK, where is this going", he said, praising the creative use of technology. What impact will this have on creativity? What are the implications for monetization in terms of business? Since the writers of a song are awarded in both Song of the Year and Best Rap Song categories, the ghostwriter and his crew filed "Heart on My Sleeve" for the Grammy Awards in both categories[432]. The song may face issues because Mason had initially stated that it was "absolutely eligible because it was written by a human". However, in order for a song to be eligible for a Grammy, it must have "general distribution – the broad release of a recording, available nationwide via brick-and-mortar stores, third-party online retailers, and/or streaming services". However, Mason later claimed that the music was not really eligible for a Grammy because the vocals were not lawfully collected or approved by the label or performers, in addition to not being publicly available. Even though they were determined to be ineligible for a Grammy[433], it was still an accomplishment to be considered for such a prestigious prize. The "Heart on My Sleeve" Grammy incident demonstrated that the music business was paying notice and taking AI seriously; what had begun as novelty and goofy covers seemed to have changed. The focus was on "planting the seed, the idea that [AI-generated vocals are] a creative tool for songwriters", as Ghostwriter's management subsequently stated, rather than on whether the song would succeed or fail. "Ghostwriter really has played an important role here to bring awareness and attention", Mason said, citing the song's significance. He admitted that artificial intelligence (AI) would be used in the music industry and that the industry would be foolish to ignore AI and attempt to outlaw it. Mason stated that while he is not afraid about AI, he does think that measures should be taken to ensure that the creative community is safeguarded. As responses regarding the song's eligibility were changing, the Grammy dilemma also brought attention to the ambiguity surrounding the usage of AI-generated vocals. The Recording Academy announced its guidelines for the Grammys' use of AI in June, stating that it would accept AI-generated music and content from "human creators" and would even take into account tracks with AI vocals or

---

[432] *Ibidem.*

[433] EMMA ROTH, *AI Drake Song 'Not Eligible' for a Grammy, Academy CEO Says*, in «The Verge», 8 settembre 2023, disponibile online al link: https://www.theverge.com/2023/9/8/23864379/ghostwriter-ai-drake-song-grammy-not-eligible [ultimo accesso 5 febbraio 2025].

instrumentals. Mason explained that Ghostwriter's music was ineligible, saying that "the Academy is here to support and advocate and protect and represent human artists and human creators, period" and that things would unavoidably continue to develop and evolve. With a new song called "Whiplash",[434] which featured AI-generated vocals that imitated rappers Travis Scott and 21 Savage, Ghostwriter made a comeback to the public on September 6, 2023. This time, the music was only shared on social networking sites like X and TikTok and wasn't available on streaming services. Perhaps since some of the novelty and shock of the original release had worn off, the song did not create as much of a stir as "Heart on My Sleeve".

"We are not here to agitate or cause problems", stated Ghostwriter's manager, adding that the company would never release a song on streaming platforms again without the artists' consent. The initial purpose of the release was to demonstrate that there was a market for AI music[435]. Alongside the release of Whiplash, Ghostwriter released a statement urging 21 Savage and Travis Scott to work together. He wrote, "Music's future is here". "Without doing a thing, artists can now use their voice to further their goals. I'll properly identify the song as AI and give you the royalties if you're willing to release it. In any case, show respect"[436]. Despite the fact that neither Scott nor 21 Savage replied, the request left a lasting impression on the public, demonstrating how AI may lead to novel partnerships and chances for artists to generate new income. Later on, TikTok removed the song. The manager of Ghostwriter made a somewhat self-serving response when asked to defend the use of artists' voices without their permission to create AI vocals: "Everything has to start somewhere, just like Spotify would not have come to be without disruptions created by Napster (a famous music file-sharing service, launched in 1999)"[437]. Although it is frequently true that innovation involves upsetting established players, innovation should not occur in a vacuum; rather, it should occur within the institutional, legal, and regulatory frameworks that currently exist. These frameworks play a crucial role in

---

[434] G. JABOUR, *Drake or Fake? Perceptions, Concerns, and Business Implications of AI-Generated Vocals*, Tesi di Dottorato, 2024.

[435] *Ibidem.*

[436] *Ibidem.*

[437] *Ibidem.*

guiding and limiting the course of innovation. On the other hand, excessive regulation or restriction can also hinder innovation and hinder potentially game-changing discoveries. According to the management of Ghostwriter, new technologies aren't often flawless at first, but the intention behind the release of "Heart on My Sleeve" was to spark discussion and demonstrate the potential of AI in music rather than to produce a flawless song. Artists also worry about AI-generated vocals because they believe the law won't be able to keep up with the rapid advancements in AI technology and that AI would produce an excessive amount of subpar music. Brian Wayne Transeau, a software developer and Grammy-nominated electronic musician who goes by the initials BT, thinks it is "completely broken logic that legislation or litigation is going to protect the arts"[438]. Even while he thinks AI has a lot of potential as a tool and resource for artists, he thinks that artists, not lawyers, should be the ones developing rules for its application. One risk of artificial intelligence, according to singer-songwriter and voice actor Dan Navarro, is the "lowering of artistic standards to a point where fake becomes real and mediocrity rules", making "commercial music like brown-food-product; able to sustain life, but never truly satisfy"[439]. David Guetta, who drew artificial intelligence to the public's attention after demonstrating how perfectly the new technology mimics pop musicians' voices, provides another significant example of its application[440]. The French DJ and producer posted a video of himself performing a song during one of his sets last week, adding Eminem's "voice" to it using artificial intelligence technology. Guetta captioned the tweet, saying, "Let me introduce you to… Emin-AI-em". As an unreleased song with a voiceover of Eminem echoes, Guetta can be seen energizing a sizable crowd in the linked video: "This is the future rave sound / I'm getting awesome and underground"[441]. An interview with Guetta was also included in the video, during which he discussed how the remix was created using websites that generate artificial intelligence. "It's so amazing that something I made as a joke works so well, Eminem bro!" he exclaimed. I entered, 'make a verse in

---

[438] *Ibidem.*

[439] *Ibidem.*

[440] T. GARCIA, *David Guetta Replicated Eminem's Voice in a Song Using Artificial Intelligence*, in «Variety», 8 febbraio 2023, disponibile online al link: https://variety.com/2023/music/news/david-guetta-eminem-artificial-intelligence-1235516924/ [ultimo accesso 26 aprile 2025].

[441] *Ibidem.*

the manner of Eminem about future rave', and was directed to another AI website that can mimic the voice. Basically, you can write lyrics in the style of any artist you desire. When I played the album and added the text, everyone went crazy". Guetta made sure to make it clear in the video's comments that he would "obviously" not be commercially distributing the music, a point of contention that was almost immediately raised in the original video's comments[442]. More AI-generated material has gone viral on sites like TikTok in recent months. The voices of some of the most well-known singers, like Bad Bunny, Ariana Grande, and Billie Eilish, have been mimicked by fans using artificial intelligence (AI) software to make already-existing tracks sound as though they are being sung by another artist[443]. It's crucial to remember that most popular "AI songs" are not totally computer-generated. Most of the time, just the voices are produced by AI, and even then, human input is needed. When "Heart on My Sleeve" first came out, a lot of people thought that AI was responsible for the song's beat, lyrics, and/or melodies[444]. This misconception was probably made worse by the excitement surrounding the launch of the generative AI tool ChatGPT in late 2022, ignorance of artificial intelligence, and false information propagated by prominent news organizations. At first, the ghostwriter refused to discuss how the song was written. Nevertheless, he subsequently verified that it was, in fact, his voice, production, and songwriting; the only AI-generated component was his audio recording, which was fed into an AI model to mimic Drake and The Weeknd. Because Ghostwriter took the time to meticulously design the song to match Drake and The Weeknds 'lyrical substance, delivery, tone, and phrasing, "Heart on My Sleeve" earnered a lot of attention as a convincing "fake". Given its current state, it is unlikely that AI technology could perform such a thorough task[445]. Practically speaking, making music with AI-generated voices usually involves the same processes, however the precise procedure may differ based on the model-creation software. For instance, speech AI models can be trained using Google Colab, a free web-based interactive computing

[442] *Ibidem.*

[443] *Ibidem.*

[444] G. JABOUR, *Drake or Fake? Perceptions, Concerns, and Business Implications of AI-Generated Vocals*, Tesi di Dottorato, 2024.

[445] *Ibidem.*

platform; however, all phases must be completed from scratch, requiring users to enter their own code. kits. Contrarily, AI is a website with an easy-to-use interface that doesn't require any coding knowledge and comes with voice presets. However, unlike Colab, it charges for more sophisticated models[446]. In order for the vocal clone to work, users must first prepare their dataset and submit audio files that will serve as training data. At least 15 minutes of dry (i.e., unprocessed) vocals are usually needed for the training dataset, but the more data, the better. High-quality audio must be supplied into the model in order to provide a more realistic vocal clone output; with AI models, you get what you put in. Sophisticated audio preprocessing is usually needed to achieve high-quality audio, where users separate vocals from instrumentals, perform tiny pitch corrections, alter EQ and compression, and more. Vocal ad libs should be run independently from the main voice, and effects, reverb, harmonies, and layering should all be eliminated. Training data should also be as varied as possible, encompassing a wide range of vowels and pitches and an artist's whole vocal range, in order to provide a more accurate result. It can be more difficult to mimic some vocal and musical styles than others. For different voice styles, such rapping and singing, it is preferable to develop independent models[447].The reference audio files will subsequently be used to train the model. After training is complete, users can utilize their trained voice model to convert the input audio files to the desired (trained) vocal style by dropping in input data, which can be any audio they choose to apply the vocal clone to. The model tends to perform better on vocals with comparable ranges and accents, using all of the previously uploaded data to produce an accurate conversion. Users can edit the resultant audio file and apply processing effects once the conversion is finished, making it a believable replica[448].

---

[446] *Ibidem.*

[447] *Ibidem.*

[448] *Ibidem.*

The observations in this part are based on an in-person interview with Luigi Brescia, Head of Copyright Affairs at the Saifam Group, who provided a practitioner's viewpoint on the specific legal and financial difficulties brought about by the spread of generative AI in the music industry. His observations were particularly helpful in comprehending how organizations that oversee collective rights, like SIAE, are actively organizing to protect the interests of their members from the dangers of using generative tools without proper regulation. This article provides the analytical foundation for a more comprehensive investigation of the ways in which music labels are responding to the proliferation of AI-generated content and the potential implications for the future of professional authorship and human creativity.

Is it just that, despite being a fantastic tool, generative AI undermines human creativity to the extent that it violates copyright? According to the first-ever worldwide study on the economic effects of artificial intelligence (AI) on the music and video industries, published by the International Confederation of Societies of Authors and Composers (CISAC), music and video authors may lose €22 billion over the course of the next five years[449]. Björn Ulvaeus, president of CISAC, has praised the study as a reference for policymakers in global legislative discussions. He stated[450]: «For creators of all kinds, from songwriters to film directors, screenwriters to film composers, AI has the power to unlock new and exciting opportunities – but we have to accept that, if badly regulated, generative AI also has the power to cause great damage to human creators, to their careers and livelihoods. Which of these two scenarios will be the outcome? This will be determined in large part by the choices made policy makers, in legislative reviews that are going on across the world right now. It's critical that we get these regulations right, protect creators' rights and help develop an AI environment that safeguards human

[449] SOCIETÀ ITALIANA DEGLI AUTORI ED EDITORI (SIAE), *GEN AI: in cinque anni a rischio 22 miliardi di raccolta di diritto d'autore*, 5 dicembre 2024, disponibile online al link: https://www.siae.it/it/notizie/GEN-AI-CISAC/ [ultimo accesso 30 aprile 2025].

[450] CISAC, *Global Economic Study Shows Human Creators' Future at Risk from Generative AI*, 2024, disponibile online al link: https://www.cisac.org/Newsroom/news-releases/global-economic-study-shows-human-creators-future-risk-generative-ai [ultimo accesso 30 aprile 2025].

creativity and culture»[451]. By 2028, the present €3 billion market for AI-generated music and audiovisual material is expected to reach €64 billion. Meanwhile, generative AI services in the audiovisual and music industries are predicted to generate €9 billion in 2028, up from the present €0.3 billion. Because of the substitutive influence of AI-generated works, creators run the risk of losing a significant amount of their present income, even if the revenues of generative AI providers are expected to expand tenfold over the next five years. Despite serving as the creative "fuel" for the market for AI-generated content, producers of music and video run the risk of losing 24% and 21% of their revenue, respectively, by 2028[452]. The recent phenomenon of "Ghiblization" of images[453], which follows the release of the new generation model in ChatGPT that permits the creation of drawings highly reminiscent in style of Studio Ghibli, has highlighted how hazy the line between inspiration and copying has become in today's world, according to SIAE, the Italian Society of Authors and Publishers, a non-profit collective management organization that protects intellectual property and manages copyright in Italy[454]. SIAE contends that in the absence of explicit regulations, AI runs the risk of being mistaken for human innovation, hence diminishing the significance of personal inventiveness. The music label sent numerous emails to AI businesses seeking clarifications on the use of authors' work for training AI computers, but no one replied, according to Chief Operations Officer Nicola Mignardi[455]. Italian authors sent in recent months a survey to SIAE expressing their fears about how AI will affect their work. They also strongly urged SIAE to engage with the State to safeguard copyright. SIAE has requested - and still does - that the future law explicitly give its authors the power to forewarn third parties about the use of their creative works to train AI systems and to increase openness regarding the methods used to train this AI[456].

---

[451] *Ibidem.*

[452] *Ibidem supra note 402.*

[453] S. DONATO, *Estendere la protezione del diritto d'autore nell'era dell'IA: verso un nuovo ruolo per la SIAE?*, in «DDAY.it», 28 aprile 2025, disponibile online al link: https://www.dday.it/redazione/52810/estendere-la-protezione-del-diritto-dautore-nellera-dellia-verso-un-nuovo-ruolo-per-la-siae#disqus_thread [ultimo accesso 30 aprile 2025].

[454] *Ibidem.*

[455] Interview with Luigi Brescia, Head of Copyright Affairs at the Saifam Group, 12 April 2025.

The Law runs the risk of equating an AI-generated work with one created by a human being in every way unless there is a significant shift in direction. On World Book and Copyright Day and the 143rd anniversary of its establishment, SIAE begins a communication campaign and call to action to encourage lawmakers to take action to protect copyright, a vital cornerstone of our cultural sector.

Salvatore Nastasi, President of SIAE affirmed:

«[457]We cannot accept that human creativity is pushed aside by technologies that, without rules, feed on the work of our authors. Behind every song, every film, every work, there is a person, an emotion, and a human intelligence. Creativity is not an algorithm; it is a unique and unrepeatable act that must be decisively protected. Artificial Intelligence cannot and must not erase all this. Authors have the right to be respected, heard, and protected. SIAE has always stood by them and now strongly demands that lawmakers intervene before it is too late: the future of Italian culture is at stake».

In addition to raising public awareness, through its campaign SIAE also aims to influence the development of Italian legislation on the matter, starting with the recent Draft Law No. 1146 of 2024 entitled *"Provisions and delegation to the Government on artificial intelligence"*, on which it has already had an impact through a discussion held in September last year[458]. The Senate did pass the draft law on March 21st, and the Chamber of Deputies is currently debating it. It also contains rules and norms related to AI and copyright. Article 23 specifically states that works produced with AI support are copyright protected as long as they are "the result of the author's intellect". This excludes content produced entirely by autonomous AI systems without any discernible human creative input, as well as content produced automatically by generative models with little to no human elaboration. Furthermore, text and data mining (TDM) for AI training purposes is legitimized by the proposed law, but without specifically mentioning copyright, provided

---

[456]. SOCIETÀ ITALIANA DEGLI AUTORI ED EDITORI (SIAE), *GEN AI: in cinque anni a rischio 22 miliardi di raccolta di diritto d'autore*, 5 dicembre 2024, disponibile online al link: https://www.siae.it/it/notizie/GEN-AI-CISAC/ [ultimo accesso 30 aprile 2025].

[457] *Ibidem.*

[458] S. DONATO, *Estendere la protezione del diritto d'autore nell'era dell'IA: verso un nuovo ruolo per la SIAE?*, in «DDAY.it», 28 aprile 2025, disponibile online al link: https://www.dday.it/redazione/52810/estendere-la-protezione-del-diritto-dautore-nellera-dellia-verso-un-nuovo-ruolo-per-la-siae#disqus_thread [ultimo accesso 30 aprile 2025].

that the works and resources gathered for this purpose are legitimately accessible. As previously stated, since any move toward restrictive legislation will inevitably require the use of other regulatory tools, these are concepts rather than instantly binding articles. The Italian proposed law is also linked to the EU's AI Act, which relates to Directive (EU) 2019/790 on copyright and related rights in the Digital Single Market and is the first law in the world to largely regulate modern AI. As a result of this instruction, the 1941 Italian copyright law was modified[459]. Similar to numerous other European regulations, the AI Act is activated gradually. It is true that it went into force on August 1, 2024, but the basic terms and the bans on inappropriate AI behaviors weren't legally obligatory until February 2, 2025. The next stage will be the implementation of GPAI responsibilities on August 2, 2025. These responsibilities include the following:

1. Technical documentation: GPAIs are required to keep up-to-date and make available upon request comprehensive technical documentation pertaining to the models, including the training data and the techniques utilized.
2. Copyright compliance policy: They must put policies in place to guarantee adherence to European copyright laws, especially when it comes to using protected data when training models. A sufficiently thorough synopsis of the material utilized for model training, including the primary data sources, must be made publicly available.

3. Collaboration with downstream providers: In order for them to meet their regulatory requirements, they must give the information required to AI system providers integrating GPAI models[460].

4. Systemic risk assessment and mitigation (for models with systemic risk, which are those that are deemed particularly large and powerful): They need to carry out risk assessments related to the models and put safety tests and post-market

---

[459] *Ibidem.*

[460] S. DONATO, *Estendere la protezione del diritto d'autore nell'era dell'IA: verso un nuovo ruolo per la SIAE?*, in «DDAY.it», 28 aprile 2025, disponibile online al link: https://www.dday.it/redazione/52810/estendere-la-protezione-del-diritto-dautore-nellera-dellia-verso-un-nuovo-ruolo-per-la-siae#disqus_thread [ultimo accesso 30 aprile 2025].

> monitoring in place to reduce these risks. Unless deemed to pose a systemic risk, there are still exceptions for open-source models with publicly available parameters (such as weights and architecture) and TDM exemption for data extraction for scientific research by clearly designated institutions. In essence, AI companies will have to let European agencies examine the data of the models they have created and will create starting on August 2 of this year (the European AI Office is presently working on its third draft of the implementation). And by assuming a new position - more precisely, managing Extended Collective Licensing, or ECL - SIAE might fill this need.

A legal mechanism known as Extended Collective Licensing [461](ECL) enables a collective management organization, like SIAE in Italy, to grant licenses that are legally binding even on non-member rights holders, so long as they are given the option to opt out of the system. It was first developed in the Nordic nations, especially Denmark, Norway, and Finland, as a mechanism to make protected works easier to access in situations like digitizing archives, internet broadcasting, or even AI training, when getting individual licenses would be too difficult or expensive. Indeed, ECL might be used to approve the use of massive collections of protected works in training datasets for AI, saving developers from having to deal with millions of separate licenses. AI firms would pay one-time fees in return, which collecting organizations like SIAE would then re-distribute to the owners of the rights. But as of yet, Italy lacks clear ECL legislation. Furthermore, while though SIAE already oversees collective agreements and has extended representation responsibilities for a number of repertoires (music, audiovisual, and literature), it is now limited to managing these agreements for its own members or those who have given it a mandate[462]. A legislative amendment that permits a collecting society, like SIAE or possibly other approved organizations, to enter into agreements that are valid also for non-members, provided that a clear opt-out procedure is in place, would be required in order to implement a full-fledged ECL system. In an aggressive move to safeguard their intellectual property against technology that makes it simple for anyone to create music based on pre-existing tunes, the largest record labels in the world are suing

---

[461] *Ibidem.*

[462] *Ibidem.*

two artificial intelligence startups[463]. On behalf of Universal Music Group NV, Warner Music Group Corp., and Sony Music Entertainment, the Recording Industry Association of America announced that it filed two lawsuits against Suno AI and Uncharted Labs Inc., the company that developed Udio AI, on Monday. According to the accusations, the businesses are using vast quantities of copyrighted sound recordings to illegally train their AI models. As previously stated, the record companies' trade association, the RIAA, is requesting penalties of up to $150,000 "per work infringed." That might even reach the billion-dollar mark.

"The music community has embraced AI, and we are already partnering and collaborating with responsible developers to build sustainable AI tools centered on human creativity that put artists and songwriters in charge," Mitch Glazier, chief executive officer of the RIAA, said in a statement[464]. "But we can only succeed if developers are willing to work together with us. Unlicensed services like Suno and Udio that claim it's 'fair' to copy an artist's life's work and exploit it for their own profit without consent or pay set back the promise of genuinely innovative AI for us all." Co-founder and CEO Mikey Shulman said in a statement that Suno's technology is "designed to generate completely new outputs, not to memorize and regurgitate pre-existing content"[465] . He clarified that this is the reason the company forbids users from using the names of musicians in their written prompts when they are writing songs. "We would have been happy to explain this to the corporate record labels that filed this lawsuit, but instead of entertaining a good faith discussion, they've reverted to their old lawyer-led playbook," he said. Udio instead, didn't respond to a request for comment. Established in 2022 and headquartered in Cambridge, Massachusetts In May of last year, Suno funded $125 million and released its music-making software for the first time. Udio, a New York-based company founded by former Google DeepMind researchers and engineers, unveiled a "beta" version of its

[463] A. CARMAN, R. METZ, *Major Record Labels Sue AI Music Generators*, in «Bloomberg», 24 giugno 2024, disponibile online al link: https://www.bloomberg.com [ultimo accesso 28 aprile 2025].

[464] *Ibidem.*

[465] *Ibidem.*

software in April and raised $10 million. Both provide monthly memberships to people who wish to create more music in addition to letting users create some tracks for free[466].

The music industrys' legal case is just the most recent instance of technology and creative industries colliding, as generative AI is being utilized more and more to produce a wide range of content. Businesses such as Midjourney, OpenAI, and Stability AI used datasets that pull images from the internet to build their AI models for creating media. They contend that the technique is protected under U.S. copyright law's fair use theory, but it has sparked criticism and legal action. As said several times, AI is viewed as a possible existential danger by labels and musicians in the music business[467]. Through the organization Artist Rights Alliance, hundreds of musicians, including Billie Eilish, Miranda Lambert, and Aerosmith, signed an open letter in April calling on tech corporations, AI developers, and others to stop using AI "to infringe upon and devalue the rights of human artists". Record labels are rushing to strike a balance between safeguarding artists' rights and their own financial interests and utilizing the creative possibilities of rapidly evolving technologies.

"There is both promise and peril with AI," according to the complaint against Udio. "As more powerful and sophisticated AI tools emerge, the ability for AI to weave itself into the processes of music creation, production, and distribution grows. If developed with the permission and participation of copyright owners, generative AI tools will be able to assist humans in creating and producing new and innovative music"[468]. However, those same tools run the risk of causing "irreparable harm" to musicians, record labels, and the industry if they are not used properly, "inevitably reducing the quality of new music available to consumers and diminishing our shared culture". When questioned by Bloomberg News in April, neither Suno nor Udio would specify what exactly their AI systems are trained on. According to David Ding, co-founder and CEO of Udio, the business made use of online data that was accessible to the general public. In April, Shulman stated that "we're pretty closely guarding that secret " because the training data

---

[466] *Ibidem.*

[467] A. CARMAN, R. METZ, *Major Record Labels Sue AI Music Generators*, in «Bloomberg», 24 giugno 2024, disponibile online al link: https://www.bloomberg.com [ultimo accesso 28 aprile 2025].

[468] *Ibidem.*

is, in some respects, even more significant than the way the business builds its AI software. Additionally, Suno's actions are "legal" and "fairly in line with what other people are doing", according to Shulman[469]. More than 700 AI businesses and streaming services received a letter from Sony Music in May cautioning them against using the label's copyrighted content without express consent and licensing. It claimed to have grounds to suspect that its material has already been exploited for the purpose of developing, training, or marketing AI systems without its consent. According to the RIAA, Suno and Udio have virtually acknowledged using copyrighted content to create their models, whether through an investor or internal management. According to the complaint, one of Suno's original investors stated that he most likely would not have contributed to the firm if it had agreements with labels at the outset. He argued it was a necessary risk to defend against claims[470]. According to Pamela Samuelson, a professor of law and expert in digital copyright at the University of California, Berkeley, generative AI firms have strong fair use arguments for employing works as training material. However, she noted that courts might view music differently than they would other types of works, such text, photographs, or computer code. According to Samuelson, "the data type might actually matter". "I could see courts making distinctions on that basis". The U.S. District Court for the Southern District of New York received the lawsuit against Uncharted Labs, while the U.S. District Court for the District of Massachusetts received the case against Suno[471]. In order to protect artists from deception and misattribution, Universal Music Group (UMG) also strengthened its collaboration with Amazon in December 2024 to fight "illegal "AI-generated content[472]. The enlarged deal between Amazon and UMG covers a number of important topics that represent the changing opportunities and difficulties facing the music business in the age of artificial intelligence. Fighting the proliferation of illegal AI-generated content is one

---

[469] *Ibidem.*

[470] A. CARMAN, R. METZ, *Major Record Labels Sue AI Music Generators*, in «Bloomberg», 24 giugno 2024, disponibile online al link: https://www.bloomberg.com [ultimo accesso 28 aprile 2025].

[471] *Ibidem.*

[472] A.M. DE FRANCESCO, *The AI Music Revolution: How Recording Labels Are Fighting to Protect Copyright Law in the Era of Deepfakes*, in «LawTalkToday», 7 marzo 2024, disponibile online al link: https://www.lawtalktoday.co.uk/post/the-ai-music-revolution-how-recording-labels-are-fighting-to-protect-copyright-law-in-the-era-of-de [ultimo accesso 30 aprile 2025].

of the partnership's main goals[473]. In response to a growing worry about the misuse of generative technologies, both firms have committed to creating cutting-edge tools and techniques intended to identify and control AI-generated music that mimics artists' voices without the required consent. The partnership also prioritizes preventing misattribution and safeguarding against fraud. Together, UMG and Amazon hope to put in place measures that shield artists from deceptive tactics and ensure that creators receive credit and acknowledgment for their contributions. Finally, a common vision for innovation in audiovisual programming is included in the agreement. As a symbol of a larger dedication to creative innovation and audience engagement across many platforms, UMG will work with Amazon Music to venture into new markets including audiobooks and livestreamed content[474]. The partnership between the two represents a major advancement in tackling the increasing difficulties presented by artificial intelligence in the music sector. The protection of artists is a primary goal of the partnership, and both businesses are collaborating to create cutting-edge algorithms that can recognize and flag fake content that appears on Amazon's platform. The goal of this program is to protect the integrity of original artistic work and stop illegal imitations[475]. Additionally, the collaboration aims to carefully balance protecting copyright with promoting technical innovation. The partnership demonstrates an attempt to balance advancement with moral and legal obligations by attempting to utilize AI's creative potential while upholding intellectual property rights. This agreement's ability to establish more extensive industry standards is another important aspect. By working together, Amazon and UMG could have an impact on how AI-generated content is incorporated into online shopping platforms, which could result in stricter regulations for the commercial usage of these technologies. Partnerships like this one between significant industry players like Amazon and UMG are probably going to be very important in determining the direction of digital music in the future and defending artists' rights in the AI era as the music industry continues to negotiate the

[473] THEOUTPOST, *Amazon and Universal Music Group Expand Partnership to Combat AI-Generated Content and Protect Artists*, 23 dicembre 2023, disponibile online al link: https://www.theoutpost.com [ultimo accesso 28 aprile 2025].

[474] *Ibidem.*

[475] *Ibidem.*

challenges of AI-generated material[476]. While other collecting societies, such as SIAE, are attempting to look into the matter and seek clarifications without yet pursuing significant legal action, in Europe, other labels, such as GEMA, have accelerated their efforts. GEMA was the first collecting society in the world to bring legal action against two significant suppliers of generative AI systems for training their systems without obtaining licenses using copyright-protected music. On January 21, 2025, it filed a lawsuit against both OPENAI and Suno AI[477]. The lawsuit's subject is the chatbot's unlicensed reproduction of song lyrics. When simple prompts are entered, the chatbot reproduces the original song lyrics with which the system has obviously been trained. With just a few simple commands, Suno AI can produce playable audio material. The technology produces content that clearly violates copyrights, as GEMA was able to show[478]. This content mostly relates to well-known pieces whose creators GEMA reflects in terms of melody, harmony, and rhythm. Alphaville's "Forever Young", Kristina Bach's "Atemlos", Lou Bega's "Mambo No. 5", Frank Farian's "Daddy Cool", and Modern Talking's "Cheri Cheri Lady" are among the tracks impacted. The findings unequivocally demonstrate how Suno Inc. has routinely utilized GEMA's repertoire to train its music tool and is currently making commercial use of it without paying the authors a portion of the profits[479]. In conclusion, the claim that generative AI is here to stay is valid. Like most disruptive technology, its influence on the music industry is only going to grow and change. But some people's current wild-west behaviors, such as using copyrighted music without permission and making deepfakes without permission, won't[480]. Its quick development creates two realities: on the one hand, it creates enormous opportunity for innovation, but on the other hand, it also brings significant ethical and legal difficulties.

---

[476] *Ibidem.*

[477] Interview with Luigi Brescia, Head of Copyright Affairs at the Saifam Group, 12 April 2025.

[478] GEMA, *AI and Music: Generative AI and Copyright – US Authors File Lawsuit Against AI Companies*, 2024, disponibile online al link: https://www.gema.de/en/news/ai-and-music/ai-lawsuit [ultimo accesso 30 aprile 2025].

[479] *Ibidem.*

[480] A. VAUGHN GENDRON, *A New Frontier: The Music Industry's Struggle Against Generative AI*, in «University of Miami Business Law Review», 33(1), 2024, pp. 161 ss., disponibile online al link: https://repository.law.miami.edu/umblr/vol33/iss1/8 [ultimo accesso 30 aprile 2025].

It is clear that the growing use of AI in music production necessitates a thorough review of current legal theories, especially those pertaining to authorship, intellectual property, and performers' rights[481]. The way that recording companies, legislators, and artists negotiate this complicated terrain will determine how the music industry develops in the future, striking a balance between innovation and the defense of creative rights. In conclusion, the claim that generative AI is here to stay is valid. Like most disruptive technology, its influence on the music industry is only going to grow and change. In this situation, copyright protection and the acknowledgment of individual characteristics, like voice, become crucial cornerstones of an active regulatory system. AI will continue to be a potent instrument for musical advancement rather than a danger to artistic authenticity, therefore cooperation between tech firms and record labels as well as changing legislative frameworks will be essential[482].

[481] A.M. DE FRANCESCO, *The AI Music Revolution: How Recording Labels Are Fighting to Protect Copyright Law in the Era of Deepfakes*, in «LawTalkToday», 7 marzo 2024, disponibile online al link: https://www.lawtalktoday.co.uk/post/the-ai-music-revolution-how-recording-labels-are-fighting-to-protect-copyright-law-in-the-era-of-de [ultimo accesso 30 aprile 2025].

[482] *Ibidem.*

CONCLUSION

The emergence of generative artificial intelligence has caused a fundamental change in the way society views authorship, creativity, and the use of free speech. As this thesis explains, generative AI is not just a passive tool; rather, it is a dynamic entity that can create material on its own, participate in cultural discussions, and occasionally change the structure of the public domain. In light of machines that can create, learn, and "express", this breakthrough in technology calls for a thorough reconsideration of fundamental legal categories and democratic values. Freedom of expression, which has its roots in liberal democratic traditions, has always been a dynamic right that has continuously adjusted to shifts in power dynamics and communication technology, according to the legal-philosophical viewpoint offered in Chapter One. But a new set of problems has emerged with the advent of generative AI: who communicates when robots produce expressive content? Whose rights are being used - or even restricted? These issues become particularly pertinent when artificial intelligence (AI) systems function not just as voice channels but also as censors, curators, and moderators of material, with little accountability and unclear algorithmic rationale. This thesis contends that in order to handle the rise of these non-human "expressive agents" and the possible stifling effects of automated censorship or undetectable bias ingrained in generative systems, conventional conceptions of free speech need to be reviewed. As seen in Chapter Two, regulatory reactions to generative AI differ greatly between nations, reflecting varying legal cultures and political agendas. The risk-based AI Act of the European Union provides a strong, rights-based framework to reduce harm and promote innovation, but it still has loopholes in the protection of free speech, particularly when it comes to generative and general-purpose models. Meanwhile, the United States risks solidifying private power over public discourse by continuing to rely mostly on self-regulation and market-based procedures. Further worries regarding the use of generative AI as a weapon for ideological control and surveillance are raised by China's highly centralized, state-driven approach. When combined, these divergent legislative frameworks highlight the pressing need for global cooperation and the creation of common normative standards to guarantee that the advancement of AI respects fundamental rights, such as the right to free speech. Using the music industry as a particularly representative and quickly

changing case study, Chapter Three illustrates the conflicts between generative AI, creativity, and copyright law. Unresolved legal issues remain, especially those pertaining to originality, ownership, and the right to just recompense, as generative models increasingly create music that imitates human artistry. These problems are made worse by unclear authorship, hazy lines between inspiration and replication, and unauthorized usage of copyrighted datasets. The chapter demonstrates how AI-generated music can violate intellectual property frameworks, challenge the cultural value of creativity, and violate the moral and financial rights of human creators through the examination of specific case studies. Some business voices caution against the rising devaluation of human labor, exploitation, and opaque data extraction. Conversely, some contend that AI presents a previously unheard-of chance to democratize creativity by reducing obstacles to entry and increasing involvement in the creation of cultural output. A direct conversation with Luigi Brescia, Head of Copyright Affairs at the Saifam Group, provided crucial insights into the tangible risks that artists confront today, enabling a clearer knowledge of these dynamics. Special attention was paid to how SIAE, the Italian copyright collecting society, is modifying its institutional and legal strategies to shield its members from the effects of generative AI technologies. This includes making sure that outputs are transparent and attributed and prohibiting the unlicensed use of musical compositions for AI training. The need for copyright law reform to acknowledge hybrid authorship models and guarantee viable creative ecosystems is shown by the fragmentation of legal responses between countries and the challenge of assigning authorship in algorithmic creations. The idea that generative AI should be viewed as a creative partner - a collaborator that enhances rather than replaces human expression - is ultimately supported by this thesis. However, this collaboration necessitates both normative direction and critical examination. The main obstacle is creating a morally and legally sound atmosphere that allows AI-enhanced expression to thrive without eroding free speech's democratic purposes, reducing cultural variety, or sacrificing human dignity. In doing so, we have to face unresolved conflicts between freedom and control, automation and agency, and innovation and regulation. Going on, a few avenues merit more investigation. First, to guarantee that generative AI respects free speech and stays clear of algorithmic censorship, open and responsible governance structures must be established in both the public and commercial sectors. Second, legal frameworks must be

updated to make it simpler to determine what AI-generated works are and how they are protected, particularly with regard to copyright and moral rights. Third, rather than just passively consuming AI's outputs, educational and cultural policies should encourage people, especially young creators, to use AI critically and creatively. To conclude, generative AI forces all of us to reconsider the limits of 21st-century expression, creativity, and regulation. It has enormous transformational potential, but it also has risks to consider. However, the diverse, creative, and unrestricted human voice must continue to be at the core of our legal, cultural, and technical ecosystems as we traverse this new frontier.

BIBLIOGRAPHY

1. J.-M. DELTORN, F. MACREZ, *Authorship in the Age of Machine Learning and Artificial Intelligence*, disponibile online al link: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3261329 [ultimo accesso 5 febbraio 2025].

2. G. FROSIO, *Should We Ban Generative AI, Incentivise it or Make it a Medium for Inclusive Creativity?*, in E. Bonadio, C. Sganga (a cura di), *A Research Agenda for EU Copyright Law*, Edward Elgar, Cheltenham, 2025 (forthcoming), disponibile online al link: https://ssrn.com/abstract=4527461 [ultimo accesso 5 febbraio 2025].

3. *Generative AI Copyright Disclosure Act of 2024*, disponibile online al link: https://www.congress.gov/bill/118th-congress/house-bill/7913/text [ultimo accesso 5 febbraio 2025].

4. P.B. HUGENHOLTZ, J.P. QUINTAIS, *Copyright and Artificial Creation: Does EU Copyright Law Protect AI-Assisted Output?*, in «IIC - International Review of Intellectual Property and Competition Law», 52, 2021, pp. 1190–1216, disponibile online al link: https://doi.org/10.1007/s40319-021-01115-0 [ultimo accesso 5 febbraio 2025].

5. IL POST, *Causa delle case discografiche contro l'intelligenza artificiale*, in «Il Post», 25 giugno 2024, disponibile online al link: https://www.ilpost.it/2024/06/25/causa-case-discografiche-intelligenza-artificiale [ultimo accesso 5 febbraio 2025].

6. PHILIPPE JOUGLEUX, *Freedom of Expression and the Rise of AI*, in *Facebook and the (EU) Law: How the Social Network Reshaped the Legal Framework*, Springer International Publishing, Cham, 2022, pp. 213-245.

7. P. KELLER, *Protecting Creatives or Impeding Progress? Machine Learning and the EU Copyright Framework*, in «Kluwer Copyright Blog», 20 febbraio 2023, disponibile online al link: https://copyrightblog.kluweriplaw.com/2023/02/20/protecting-creatives-or-impeding-progress-machine-learning-and-the-eu-copyright-framework [ultimo accesso 5 febbraio 2025].

8. F. MAZZI, *Authorship in Artificial Intelligence-Generated Works: Exploring Originality in Text Prompts and Artificial Intelligence Outputs through Philosophical Foundations of Copyright and Collage Protection*, in «The Journal of World Intellectual Property», 27(3), 2024, pp. 410-427.

9. S.K. MIZRAHI, *Following Generative AI Down the Rabbit Hole: Redefining Copyright's Boundaries in the Age of Human-Machine Collaborations*, Tesi di Dottorato, Université d'Ottawa/University of Ottawa, 2024.

10. S. NICHOLLS et al (*S. Cunningham*, *R. Picking*), *Collaborative Artificial Intelligence in Music Production*, in *Proceedings of the Audio Mostly 2018 on Sound in Immersion and Emotion*, 2018, pp. 1-4, disponibile online al link: https://dl.acm.org/doi/pdf/10.1145/3243274.3243311 [ultimo accesso 5 febbraio 2025].

11. G. PIGNATARO, *La produzione intellettuale dell'IA generativa tra etica e diritto*, in «Diritto Pubblico Europeo - Rassegna online», 22(2), 2024.

12. E. PLEVRAKIS, *Can AI be a Subject Like Us? A Hegelian Speculative-Philosophical Approach*, in «Discover Computing», 27(1), 2024.

13. O. POLLICINO, *La prospettiva costituzionale sulla libertà di espressione nell'era di Internet*, in «Media Laws», 1, 2017.

14. J.P. QUINTAIS, N. DIAKOPOULOS, *A Primer and FAQ on Copyright Law and Generative AI for News Media*, in «Generative AI Newsroom», 26 aprile 2023, disponibile online al link: https://generative-ai-newsroom.com/a-primer-and-faq-on-copyright-law-and-generative-ai-for-news-media-f1349f514883 [ultimo accesso 5 febbraio 2025].

15. S. RODOTÀ, *Il diritto di avere diritti*, Laterza, Roma-Bari, 2012.

16. S. RODOTÀ, *Una costituzione per Internet?*, in «Politica del diritto», 41(3), 2010, pp. 337-352.

17. M. SENFTLEBEN, *Generative AI and Author Remuneration*, in «IIC - International Review of Intellectual Property and Competition Law», 54(10), 2023, pp. 1535-1560.

18. N.A. SMUHA (a cura di), *The Cambridge Handbook of the Law, Ethics and Policy of Artificial Intelligence*, Cambridge University Press, Cambridge, 2025.

19. A. SIMONCINI, *L'algoritmo incostituzionale: intelligenza artificiale e il futuro delle libertà*, in «BioLaw Journal», 2019, pp. 63-89.

20. B. VAN DER SLOOT, *Regulating the Synthetic Society: Generative AI, Legal Questions, and Societal Challenges*, Bloomsbury Academic, Londra, 2024.

21. X. WANG, Y.C. WU, *Balancing Innovation and Regulation in the Age of Generative Artificial Intelligence*, in «Journal of Information Policy», 14, 2024.

22. S. RAPACCINI, *Libertà di espressione, fino a che punto? La lezione di Mill*, in «IlPensieroStorico.com», 2022, disponibile online al link: https://ilpensierostorico.com/liberta-di-espressione-fino-a-che-punto-la-lezione-di-mill/ [ultimo accesso 13 marzo 2025].

23. S. MENDIS, *Copyright, the Freedom of Expression and the Right to Information: Exploring a Potential Public Interest Exception to Copyright in Europe*, Nomos Verlagsgesellschaft mbH & Co. KG, 2011.

24. *Freedom of Expression – History* (in corsivo), disponibile online al link: https://www.democracyweb.org/study-guide/freedom-of-expression/history [ultimo accesso 13 marzo 2025].

25. ULLA CARLSSON, *Freedom of Expression Revisited: Citizenship and Journalism in the Digital Era*, Nordicom, University of Gothenburg, 2013.

26. J. COCCOLI, *The Challenges of New Technologies in the Implementation of Human Rights: An Analysis of Some Critical Issues in the Digital Era*, in «Peace Human Rights Governance», 1(2), 2017, pp. 223-250.

27. STEFFEN HINDELANG, ANDREAS MOBERG, *YSEC Yearbook of Socio-Economic Constitutions 2021*, Springer, 2022.

28. ESA VÄLIVERRONEN, SAMPSA SAIKKONEN, *Freedom of Expression Challenged: Scientists' Perspectives on Hidden Forms of Suppression and Self-Censorship*, in «Science, Technology, & Human Values», 46(6), 2021, pp. 1172-1200.

29. A. TOLEDO, S. SHERIDAN, *User-Generated Content: Tensions Between Freedom of Expression and Copyright*, in J. Coates, V. Owen, S. Reilly (a cura di), *Navigating Copyright for Libraries: Purpose and Scope*, De Gruyter Saur, Berlin-Boston, 2022, pp. 467-496, disponibile online al link: https://doi.org/10.1515/9783110732009-021 [ultimo accesso 5 febbraio 2025].

30. L. ALEXANDER, *Is There a Right of Freedom of Expression?*, Cambridge University Press, Cambridge, 2005 (Cambridge Studies in Philosophy and Law).

31. R. O'CONNELL, *Freedom of Expression*, in *Law, Democracy and the European Court of Human Rights*, Cambridge University Press, Cambridge, 2020, pp. 84–119.

32. N. JAYAWICKRAMA, *The Right to Freedom of Expression*, in *The Judicial Application of Human Rights Law: National, Regional and International Jurisprudence*, Cambridge University Press, Cambridge, 2002, pp. 663–720.

33. M. GOSWAMI (Veenu), *Algorithms and Freedom of Expression*, in W. Barfield (a cura di), *The Cambridge Handbook of the Law of Algorithms*, Cambridge University Press, Cambridge, 2020 (Cambridge Law Handbooks), pp. 558–578.

34. J. GERARDS, *The Right to Freedom of Expression and of Information*, in J. Gerards (a cura di), *Fundamental Rights: The European and International Dimension*, Cambridge University Press, Cambridge, 2023, pp. 81–115.

35. R. SAMPERI, *Brevi riflessioni in merito al possibile impatto dell'intelligenza artificiale sui diritti umani*, in «IUS/08 - Diritto Costituzionale», 29 luglio 2021. ISSN 2421-7123.

36. S. FEUERRIEGEL, J. HARTMANN, C. JANIESCH, P. ZSCHECH, *Generative AI*, in «Business & Information Systems Engineering», 66(1), 2024, pp. 111-126.

37. C.M. REALE, M. TOMASI, *Libertà d'espressione, nuovi media e intelligenza artificiale: la ricerca di un nuovo equilibrio nell'ecosistema costituzionale*, in «DPCE online», 51(1), 2022, pp. 325-336.

38. F. DONELLI, *Generative AI and the Creative Industry: Finding Balance Between Apologists and Critics*, in «Medium», 12 marzo 2024, disponibile online al link:

https://medium.com/@fdonelli/generative-ai-and-the-creative-industry-finding-balance-between-apologists-and-critics-686f449862fc [ultimo accesso 27 marzo 2025].

39. R. BANGUN, S. FIKRI, *The Role of Generative AI in Shaping Human Rights and Gender Equity: A Critical Analysis*, in «Journal of Indonesian Legal Studies», 9(2), 2024.

40. C.K.Y. CHAN, W. HU, *Students' Voices on Generative AI: Perceptions, Benefits, and Challenges in Higher Education*, in «International Journal of Educational Technology in Higher Education», 20(1), 2023, p. 43, disponibile online al link: https://doi.org/10.1186/s41239-023-00399-2 [ultimo accesso 27 marzo 2025].

41. N.R. MANNURU, S. SHAHRIAR, Z.A. TEEL, T. WANG, B.D. LUND, S. TIJANI et al (*P. VAIDYA*), *Artificial Intelligence in Developing Countries: The Impact of Generative Artificial Intelligence (AI) Technologies for Development*, in «Information Development», 2023, codice articolo: 02666669231200628.

42. K. GOWRILAKSSMI, D.H. PRASAD, S. SHYLAJA, *The Role of Generative AI in Artistic Expression*, in «Advances in Future Trends and Technology», 146.

43. Z. EPSTEIN, A. HERTZMANN, *Investigators of Human Creativity*, M. Akten, H. Farid, J. Fjeld et al (*A. Smith*), *Art and the Science of Generative AI*, in «Science», 380(6650), 2023, pp. 1110-1111.

44. K. CHADHA, *Imagine Yourself: Explorations in Fostering Personal Expression With Generative AI*, Tesi di Master, Massachusetts Institute of Technology, 2024.

45. WILL JACKSON, *Generative AI as a Democratizing Force in Fine Arts: Navigating the New Landscape of Creation and Consumption*, Tesi di Dottorato, 2024.

46. NEIL POSTMAN, *Technopoly: The Surrender of Culture to Technology*, Alfred A. Knopf, New York, 1993, pp. 4-5.

47. VIKTOR BEZIC, *Algorithmic Beauty: 10 Artists Pushing the Boundaries of Code*, in «Medium.com», 2018, disponibile online al link: https://medium.com/feed-fatigue/algorithmic-beauty-10-artists-pushing-the-boundaries-of-code-2d55b58aedea [ultimo accesso 5 febbraio 2025].

48. P. MOHANTY, A. ANWESHA, *Censorship vs. Freedom: The Digital Age Debate on Speech and Expression*, in «International Journal of Law Management & Humanities», 7(4), 2024, pp. 1656-1665, disponibile online al link: https://doij.org/10.10000/IJLMH.118182 [ultimo accesso 1 aprile 2025].

49. O. PARKER, *Navigating the Privacy-Freedom Dilemma: The Impact of AI on Content Moderation and Free Speech*, 2024.

50. E. LLANSÓ, J. VAN HOBOKEN, P. LEERSSEN, J. HARAMBAM, *Artificial Intelligence, Content Moderation, and Freedom of Expression*, 2020.

51. H.A. ÜNVER, *Artificial Intelligence (AI) and Human Rights: Using AI as a Weapon of Repression and Its Impact on Human Rights*, 2024.

52. B. OTTMAN et al (*M.D. Davis*, *R. Reconciliator*, *J. Ottman*, *N. Lewis*), *The Censorship Effect*, s.d.

53. L. CHOLI, P. RICO, *Balancing Free Speech and Algorithmic Control: Navigating Privacy and Expression in the AI Era*, 2024.

54. D.C. YOUVAN, *Freedom of Speech and World Peace: The Role of AI in Facilitating Unmanipulated Global Dialogue*, 2024.

55. J., T. AHMAD, E. SOARES, R. LEVUSH, G. GUERRA, J. MARTIN et al (*H. Goitom*), *Regulation of Artificial Intelligence in Selected Jurisdictions*, 2019.

56. I. SANDIUMENGE, *Copyright Implications of the Use of Generative AI*, disponibile online al link: https://ssrn.com/abstract=4531912 [ultimo accesso 5 febbraio 2025].

57. A. ADEDOKUN, *Global AI Regulatory Landscape: Challenges, Trends, and Future Outlook*, 29 febbraio 2024.

58. G.O. MBAH, *The Role of Artificial Intelligence in Shaping Future Intellectual Property Law and Policy: Regulatory Challenges and Ethical Considerations*, in «Journal of Emerging Technologies and Innovative Research», 10(12), 2024, pp. 351-354.

59. V. KULOTHUNGAN, D. GUPTA, *Towards Adaptive AI Governance: Comparative Insights from the US, EU, and Asia*, 2025.

60. G.K. HADFIELD, J. CLARK, *Regulatory Markets: The Future of AI Governance*, 2023.

61. S. MIRISHLI, *The Role of Legal Frameworks in Shaping Ethical Artificial Intelligence Use in Corporate Governance*, 2025.

62. M.A. GEIST, *AI and International Regulation*, in *Artificial Intelligence and the Law in Canada*, LexisNexis Canada, Toronto, 2021.

63. I. BENIZRI, A. EVERS, S. MERCER, A. JESSANI, *A Comparative Perspective on AI Regulation*, in «Lawfare», 2023.

64. S. FELDSTEIN, *The Road to Digital Unfreedom: How Artificial Intelligence is Reshaping Repression*, in «Journal of Democracy», 30(1), 2019, pp. 40-52.

65. Z. YU, Z. LIANG, L. XUE, *A Data-Driven Global Innovation System Approach and the Rise of China's Artificial Intelligence Industry*, in «Regional Studies», 56(4), 2022, pp. 619-629.

66. A.H. ZHANG, *The Promise and Perils of China's Regulation of Artificial Intelligence*, in «Columbia Journal of Transnational Law», 63, 2025, p. 1.

67. N. STAMILE, *Brevi note sulla libertà di espressione nell'ordinamento giuridico italiano*, in «Derecom», 7, 2011, p. 1.

68. J. SHEPHERD, *What is the Digital Era?*, in G. Doukidis, N. Mylonopoulos, N. Pouloudi (a cura di), *Social and Economic Transformation in the Digital Era*, IGI Global Scientific Publishing, 2004, pp. 1-18, disponibile online al link: https://doi.org/10.4018/978-1-59140-158-2.ch001 [ultimo accesso 5 febbraio 2025].

69. F.A. PK, *What is Artificial Intelligence?*, in *Success is No Accident. It is Hard Work, Perseverance, Learning, Studying, Sacrifice and Most of All, Love of What You Are Doing or Learning to Do*, 1984, p. 65.

70. K. NOVIKOVA, *Future of Artificial Intelligence in Music Industry: The Connection Between Generative AI and Music Production*, 2024.

71. S. CANYAKAN, *The Role of AI in Creative Processes: Ethical and Legal Perspectives in the Music Industry*, in «Journal of Music Theory and Transcultural Music Studies», 2024, pp. 143-158.

72. V. PUJARI, B. WILSON, *Copyright and Authorship in AI-Generated Music*, in «Journal of Emerging Technologies and Innovative Research», 10(12), 2023, pp. 351-354.

73. H. JUZON, *Fake Drake? AI Music Generation Implicates Copyright and the Right of Publicity*, in «Washington Law Review», 99, 2024, p. 987.

74. C. GREYSON, *Regulatory Challenges and Ethical Considerations of AI-Generated Content in the Music Industry*, disponibile online al link: https://ssrn.com/abstract=5125914 [ultimo accesso 5 febbraio 2025].

75. V. NAYAR, *The Ethics of AI Generated Music: A Case Study on Suno AI*, in «GRACE: Global Review of AI Community Ethics», 3(1), 2025.

76. G. JABOUR, *Drake or Fake? Perceptions, Concerns, and Business Implications of AI-Generated Vocals*, Tesi di Dottorato, 2024.

77. *Ghostwriter, the Mastermind behind the Viral Drake AI Song, Speaks for the First Time*, in «Billboard», 11 ottobre 2023, disponibile online al link: https://www.billboard.com/music/pop/ghostwriter-heart-on-my-sleeve-drake-ai-grammy-exclusive-interview-1235434099/ [ultimo accesso 5 febbraio 2025].

78. EMMA ROTH, *AI Drake Song 'Not Eligible' for a Grammy, Academy CEO Says*, in «The Verge», 8 settembre 2023, disponibile online al link: https://www.theverge.com/2023/9/8/23864379/ghostwriter-ai-drake-song-grammy-not-eligible [ultimo accesso 5 febbraio 2025].

79. RACHEL REED, *AI Created a Song Mimicking the Work of Drake and the Weeknd. What Does That Mean for Copyright Law?*, in «Harvard Law School», 2 maggio 2023, disponibile online al link: https://hls.harvard.edu/today/ai-created-a-song-mimicking-the-work-of-drake-and-the-weeknd-what-does-that-mean-for-copyright-law/ [ultimo accesso 5 febbraio 2025].

80. JOE COSCARELLI, *An A.I. Hit of Fake 'Drake' and 'The Weeknd' Rattles the Music World*, in «The New York Times», 19 aprile 2023, sezione Arts, disponibile online al link: https://www.nytimes.com/2023/04/19/arts/music/ai-drake-the-weeknd-fake.html [ultimo accesso 5 febbraio 2025].

81. T. GARCIA, *David Guetta Replicated Eminem's Voice in a Song Using Artificial Intelligence*, in «Variety», 8 febbraio 2023, disponibile online al link: https://variety.com/2023/music/news/david-guetta-eminem-artificial-intelligence-1235516924/ [ultimo accesso 26 aprile 2025].

82. SOCIETÀ ITALIANA DEGLI AUTORI ED EDITORI (SIAE), *GEN AI: in cinque anni a rischio 22 miliardi di raccolta di diritto d'autore*, 5 dicembre 2024, disponibile online al link: https://www.siae.it/it/notizie/GEN-AI-CISAC/ [ultimo accesso 30 aprile 2025].

83. CISAC, *Global Economic Study Shows Human Creators' Future at Risk from Generative AI*, 2024, disponibile online al link: https://www.cisac.org/Newsroom/news-releases/global-economic-study-shows-human-creators-future-risk-generative-ai [ultimo accesso 30 aprile 2025].

84. S. DONATO, *Estendere la protezione del diritto d'autore nell'era dell'IA: verso un nuovo ruolo per la SIAE?*, in «DDAY.it», 28 aprile 2025, disponibile online al link: https://www.dday.it/redazione/52810/estendere-la-protezione-del-diritto-dautore-nellera-dellia-verso-un-nuovo-ruolo-per-la-siae#disqus_thread [ultimo accesso 30 aprile 2025].

85. A. CARMAN, R. METZ, *Major Record Labels Sue AI Music Generators*, in «Bloomberg», 24 giugno 2024, disponibile online al link: https://www.bloomberg.com [ultimo accesso 28 aprile 2025].

86. A.M. DE FRANCESCO, *The AI Music Revolution: How Recording Labels Are Fighting to Protect Copyright Law in the Era of Deepfakes*, in «LawTalkToday», 7 marzo 2024, disponibile online al link: https://www.lawtalktoday.co.uk/post/the-ai-music-revolution-how-recording-labels-are-fighting-to-protect-copyright-law-in-the-era-of-de [ultimo accesso 30 aprile 2025].

87. THEOUTPOST, *Amazon and Universal Music Group Expand Partnership to Combat AI-Generated Content and Protect Artists*, 23 dicembre 2023, disponibile online al link: https://www.theoutpost.com [ultimo accesso 28 aprile 2025].

88. GEMA, *AI and Music: Generative AI and Copyright – US Authors File Lawsuit Against AI Companies*, 2024, disponibile online al link: https://www.gema.de/en/news/ai-and-music/ai-lawsuit [ultimo accesso 30 aprile 2025].

89. A. VAUGHN GENDRON, *A New Frontier: The Music Industry's Struggle Against Generative AI*, in «University of Miami Business Law Review», 33(1), 2025, pp. 161 ss., disponibile online al link: https://repository.law.miami.edu/umblr/vol33/iss1/8 [ultimo accesso 30 aprile 2025].

90. EUROPEAN UNION. (2012) *Charter of Fundamental Rights of the European Union*, 2012/C 326/02. Official Journal of the European Union, C 326, pp. 391–407.

91. ORGANIZATION OF AMERICAN STATES (OAS). (1969) *American Convention on Human Rights "Pact of San José, Costa Rica"*. San José, 22 November 1969.

91. *Charter of Fundamental Rights of the European Union 2007, art. 11; European Convention on Human Rights 1950, art. 10*

92. *International Covenant on Civil and Political Rights 1966, art. 19*

93. EUROPEAN UNION. (2000) *Directive 2000/31/EC of the European Parliament and of the Council of 8 June 2000 on certain legal aspects of information society services, in particular electronic commerce, in the Internal Market (E-Commerce Directive)*. Official Journal of the European Communities, L 178, pp. 1–16.

94. ARTIFICIAL INTELLIGENCE ACT, *Proposal for a Regulation of the European Parliament and of the Council laying down harmonised rules on artificial intelligence* (COM/2021/206 final), Art. 3(1).

95. EUROPEAN COMMISSION, *Regulatory Framework Proposal on Artificial Intelligence*, in «Digital-strategy.ec.europa.eu», 2021, disponibile online al link: https://digital-strategy.ec.europa.eu/en/policies/regulatory-framework-ai [ultimo accesso 6 maggio 2025].

96. ARTIFICIAL INTELLIGENCE ACT, *Proposal for a Regulation of the European Parliament and of the Council laying down harmonised rules on artificial intelligence* (COM/2021/206 final), Art. 3(1).

97. ARTIFICIAL INTELLIGENCE ACT, *Recital 60,* disponibile online al link: https://artificialintelligenceact.eu/recital/60/ [ultimo accesso 6 maggio 2025].

98. OECD, *Framework for the Classification of AI Systems*, in «OECD.org», 2021, disponibile online al link: https://www.oecd.org/en/publications/oecd-framework-for-the-classification-of-ai-systems_cb6d9eca-en.html [ultimo accesso 6 maggio 2025].

99. UNESCO, *Recommendation on the Ethics of Artificial Intelligence*, in «Unesco.org», 2021, disponibile online al link: https://www.unesco.org/en/articles/recommendation-ethics-artificial-intelligence [ultimo accesso 6 maggio 2025].

100. R.U. PASOPATI et al (*C.P. Bethari, D.S.F. Nurdin, M.S. Camila, S.A. Hidayat*), *Ethical Consequentialism in Values and Principles of UNESCO's Recommendation on the Ethics of Artificial Intelligence*, in «Proceeding International Conference on Religion, Science and Education», 3, 2024, pp. 567-579.

101. NIST, *Artificial Intelligence – Frequently Asked Questions*, U.S. Department of Commerce, 2022.

102. NIST, *AI Risk Management Framework*, in «Nist.gov», 2023, disponibile online al link: https://www.nist.gov/itl/ai-risk-management-framework [ultimo accesso 6 maggio 2025].

103. A&O SHEARMAN, *Ownership of AI-generated content in the UK*, in «Aoshearman.com», 2024, disponibile online al link: https://www.aoshearman.com/en/insights/ownership-of-ai-generated-content-in-the-uk [ultimo accesso 6 maggio 2025].

104. ARTIFICIAL INTELLIGENCE ACT (Regulation (EU) 2024/1689), Official Journal version of 13 June 2024'. *Interinstitutional File: 2021/0106(COD)*

105. AA. VV., *Artificial Intelligence Act: come garantire la trasparenza*, in «Ai4business.it», 2023. disponibile online al link: https://www.ai4business.it/intelligenza-artificiale/artificial-intelligence-act-come-garantire-la-trasparenza/ [ultimo accesso 6 maggio 2025].

106. EUROPEAN UNION. (2001) *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 (InfoSoc Directive)*. Official Journal of the European Communities, L 167, pp. 10–19.

107. EUROPEAN UNION. (2019) *Directive (EU) 2019/790 of the European Parliament and of the Council of 17 April 2019 on copyright and related rights in the Digital Single Market and amending Directives 96/9/EC and 2001/29/EC (CDSM Directive)*. Official Journal of the European Union, L 130, pp. 92–125.