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Master's Thesis

Reliable Use of Generative Artificial Intelligence in Dispute Resolution

Patikimas Generatyvinio Dirbtinio Intelekto Naudojimas Ginčų Sprendimo Srityje

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ABSTRACT AND KEYWORDS

This work explores the potential application of generative artificial intelligence in conflict resolution, examining how it can be utilized reliably and safely. Generative artificial intelligence can provide promising solutions and prospects in conflict resolution by summarizing and analyzing long and complex legal texts that used to take a long time for lawyers. The first part provides a basic understanding of conflicts of all kinds, as well as artificial intelligence in general and generative intelligence in particular. The second part is dedicated to how to use generative artificial intelligence in conflict resolution in a reliable and safe way. In contrast, the third part is dedicated to the challenges, obstacles, and proposed solutions to overcome these challenges from the reliable use of generative artificial intelligence.

Keywords: Dispute Resolution, Generative Artificial Intelligence, EU AI Act, Reliability, OECD principles, UNESCO Ethics.

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LIST OF ABBREVIATIONS

ADR: Alternative dispute resolution

ODR: Online dispute resolution

BC: Before CHRIST

EU: European Union

CIETAC: China International Economic and Trade Arbitration Commission

AI: Artificial Intelligence

LLMs: Large language models

GPT: Generative pre-trained transformer

EU AI: European Union Artificial Intelligence

UAE: United Arab Emirates

B2B: Business to Business

B2C: Business-to-Consumer

AAA**:** American Arbitration Association

GENAI: Generative Artificial Intelligence

GANs: Generative Adversarial Networks

GDPR: General Data Protection Regulation

DSA: Digital Services Act

CRA: Cyber Resilience Act

MSAs: Market Surveillance Authorities

GPAI: General Symptoms AI models

CAC: Cyberspace Administration of China

IPR: Intellectual Property Rights

RLHF: Reinforcement Learning from Human Feedback

VLOPs: Very large Online Platforms

VLOSEs: Very Large Online Search Engines

INTRODUCTION

The rapid development of artificial intelligence (AI), particularly generative AI, has presented challenges that were unforeseen in the past. AI now influences almost every facet of daily life, and its inevitable impact on the legal and judicial sectors is becoming increasingly apparent. This thesis focuses on the integration of generative AI within the legal field, particularly in dispute resolution, and explores the associated challenges. The central issue addressed is how to incorporate and utilize generative AI reliably and securely, while examining the extent to which the law may be influenced by these emerging technologies, which remain unfamiliar and novel to many. Legal professionals, who are typically cautious about the adoption of new technologies, face a critical challenge when it comes to incorporating such innovations into the legal landscape. As a result, it is essential to approach the study and analysis of these systems in dispute resolution with caution, precision, and care. Generative AI, in particular, cannot be ignored in the current context; rather, it is crucial to keep pace with these advancements and establish appropriate frameworks for their use. Many jurisdictions are already moving to provide such frameworks. For instance, artificial intelligence systems are being developed and regulated in regions like the European Union, China, and the United States.

Generative AI offers various advantages in the legal field, including assistance with drafting legal documents, summarizing lengthy texts and laws, and generating conclusions based on these materials. However, despite these benefits, generative AI systems can also produce errors, generate biased results, or offer conclusions that seem reliable but are, in fact, flawed. This is particularly concerning in the judicial context, where individuals' rights and freedoms are at stake. Therefore, these systems must be impartial, accurate, transparent, and aligned with the rule of law.

The key question, therefore, is how to integrate generative AI into dispute resolution processes in a manner that ensures reliability and security. Several countries have already enacted or are in the process of enacting legislation to regulate the use of AI, particularly in the judicial context. For instance, the European Union introduced an AI law in 2024 that classifies AI systems involved in judicial decision-making as high-risk. This classification mandates strict regulations on their use, reflecting the EU's emphasis on democratic values and the protection of fundamental rights. In contrast, China’s approach focuses on fostering innovation and technological development while prioritizing national security.

International organizations such as the OECD and UNESCO have also established principles and recommendations regarding AI usage. These efforts aim to ensure the reliable and secure application of AI systems across all sectors. In certain jurisdictions, including Singapore, Canada, and the Netherlands, courts are beginning to experiment with AI tools to support judicial administration. These tools are being applied in areas such as triage, document review, and early case assessment to streamline procedural workflows and handle increasing caseloads more efficiently. As these pilot programs expand, the debate has shifted from questioning whether AI should be used in dispute resolution to how it can be integrated in a way that is reliable, transparent, and ethically grounded. This shift underscores the importance of establishing clear oversight structures and safeguards to maintain public trust in the judicial process. This thesis examines the legal frameworks surrounding AI in dispute resolution, with a focus on the European Union and China as case studies, and assess how these frameworks can be applied to ensure the ethical, transparent, and secure integration of generative AI into the judicial system.[1]

Relevance of the Topic

The relevance of this thesis lies in the rapid development of generative artificial intelligence in conflict resolution, at a time when the picture is still somewhat murky regarding the legal guarantees for artificial intelligence, we note that some courts and online dispute resolution platforms have already begun to gradually introduce artificial intelligence to achieve the best and fastest efficiency, there is a cost to this integration, which is the increased risk related to unreliable results and violations of human rights and democratic principles, this thesis also addresses the legal gap between the use of artificial intelligence and how to regulate it to achieve the best possible result, especially in conflict resolution, by integrating the necessary regulatory foundations and ethical assessment in this field.

Originality of the Research

The originality of this thesis lies in its focus on the reliability of generative artificial intelligence in resolving disputes and performing certain legal tasks. In fact, this is a somewhat new topic, although there are many articles on it, they remain insufficient. This thesis addresses the integration of EU law on artificial intelligence and non-binding laws such as OECD principles and UNESCO recommendations. It also touches on theoretical legal analysis and practical applications for judicial institutions that would integrate generative artificial

[1] Allen A. Shoikhetbrod, September 4, 2024, What to Know About the Stages of Litigation https://www.tullylegal.com/resources/articles/what-to-know-about-the-stages-of-litigation/

intelligence into the legal process. This thesis is a combination of legal and ethical theory and the necessary technological contribution for the governance of generative artificial intelligence.

The Aim, Object, and Tasks

This thesis aims to critically examine how generative artificial intelligence can be integrated into dispute resolution in a reliable, secure, and legal manner. The research seeks to identify the legal and governance foundations that would ensure that generative AI supports transparency, accountability, and fairness, while not forgetting human oversight in courtrooms, arbitration, and online dispute resolution systems. All of this is through the European Union's AI Act, along with a set of other laws, most notably GDPR, in addition to OECD principles and UNESCO recommendations, the thesis aims to provide a basic understanding of the concept of reliability in the context of AI and to identify the paths that judicial institutions can follow and adopt to integrate generative AI into dispute resolution.

Objectives

The objectives of the research are the following:

a) To analyze the concept of reliability in the integration of Generative Artificial Intelligence in dispute resolution
b) To examine the laws and soft law about Artificial Intelligence (EU AI ACT, OECD principles, and UNESCO ethics)
c) To identify the legal, technical, and ethical barriers to integrating Generative Artificial Intelligence in dispute resolution
d) To provide solutions and suggestions for the best way to integrate Generative Artificial Intelligence into dispute resolution.

Methods of the Research

This thesis utilizes a range of research methods to explore the integration and regulation of artificial intelligence (AI) within the legal field, specifically in the context of dispute resolution. The primary research methods employed include theoretical legal research, qualitative literature review, and analytical analysis. This method involves a detailed examination of relevant legal frameworks, including the European Union’s law on artificial intelligence, the General Data Protection Regulation (GDPR), and other related AI laws. Additionally, non-binding legal frameworks such as the OECD Principles and UNESCO Recommendations regarding AI are analyzed to provide a comprehensive understanding of the broader regulatory landscape. A qualitative review of academic studies has been conducted to identify the challenges and reliability standards associated with artificial intelligence. This

review aims to highlight the key concerns and emerging best practices related to the use of generative AI in dispute resolution, as well as to examine existing academic perspectives on the subject. The analytical method is employed to assess and identify the challenges and potential solutions related to the use of generative AI (GenAI) in dispute resolution. This method allows for an in-depth examination of the practical implications of integrating such technology into legal processes. In the course of writing this thesis, generative AI tools have been used in a limited and transparent manner. These tools were employed to draft initial versions of sections, refine the language, and summarize publicly available academic materials. Any AI-generated content has been critically reviewed for accuracy and verified, with proper citations provided where necessary. It is important to note that no automated tools were used to create analysis, arguments, or conclusions without human oversight. Full responsibility for the final content of the thesis rests solely with the author.

Important Sources

To achieve the established objectives, this thesis relies on regional regulatory legal acts and international recommendations (the EU AI Act, OECD principles, and UNESCO Ethics). These serve as potential models for globally recognized documents in the future. The most important sources, besides the binding and non-binding regulations, are Pablo Cortes, John Zeleznikow, Younas, Marco Almada, Tom Melham, Marta Beltrán, Yan Wang, Aura Esther Vilalta Nicuesa, Irina A. Filipova, Lu Zhang, and Mimi Zou.

PART I

Chapter I: Theoretical Background of Generative Artificial Intelligence and Dispute Resolution

.1. History and Definition of Dispute Resolution

The origins of the rule of law and modern judicial systems are often traced back to ancient Greek thought, particularly the philosophies of Plato, Aristotle, and other prominent thinkers. While this connection is undeniable, it is important to recognize that Greek ideas about the rule of law did not persist uninterrupted. During the Dark Ages, spanning several centuries, Greek philosophical traditions largely disappeared from the intellectual landscape. It was not until the late Middle Ages, when religious scholars began to revive and reinterpret these ancient ideas, that the concept of the rule of law was re-established, over a thousand years after the flourishing of the Athenian Renaissance. Despite this gap, the ideals put forth by Greek philosophers remain deeply influential and are often regarded as an ideal source of inspiration for modern legal and political systems. In the fifth century BC, Athens was at its zenith, and its legal and political structures offer a vivid example of the early application of the rule of law. In Athens, sovereignty resided directly with the citizens, who held ultimate power over the political processes. Unlike today, where political rights are often filtered through representatives, the Athenian system allowed all citizens, irrespective of social class or background, to actively participate in civic duties. By the age of thirty, all male citizens had the right to serve on juries or act as judges, determining legal outcomes and adjudicating disputes. This practice fostered a sense of direct involvement in the justice system. Judges, in turn, were bound by clear and transparent standards, and they were held accountable for the decisions they made. The Greek system was, in essence, a precursor to modern democratic governance, where the rule of law and the involvement of the citizenry were central to maintaining justice and order. From this point, the concepts of democracy and the rule of law began to take shape, influencing not only the Greek world but also many later legal systems. The idea that laws should be applied impartially, and that political authority derives from the people, remains a cornerstone of modern legal and political thought.[2]

[2] Brian Z. Tamanaha. On the Rule of Law: History, Politics, Theory. eBook Academic Collection(EBSCOhost).2004.p7.https://research.ebsco.com/c/vzvkqq/search/details/siettgnidv?db=e000xww

With the emergence of centralized states and written legal systems, dispute resolution underwent a significant transformation, marking a fundamental shift from informal or community-based methods to more formalized, institutionalized processes. This shift can be seen as a key development in the evolution of legal systems, as it introduced the need for specialized litigation institutions designed to handle disputes in a structured and regulated manner.

What distinguishes this new system is its emphasis on adherence to specific procedures, measures, and deadlines. In contrast to earlier methods of dispute resolution, which may have been based on customary practices or the discretion of local leaders, formal legal systems required the development of clear rules and processes to ensure fairness and consistency. These procedures often outlined the steps involved in bringing a case to court, the timelines for filing claims or responses, and the formal roles of judges, lawyers, and other participants in the legal process. The introduction of written legal codes also played a key role in this transformation. With laws codified in writing, individuals and institutions could no longer rely on oral traditions or personal judgment. Instead, legal disputes were resolved according to fixed, standardized rules that applied uniformly to all parties. This brought a level of predictability and transparency to dispute resolution, which helped to establish trust in the system and reinforced the rule of law. Furthermore, the specialized institutions that emerged to handle legal disputes, such as courts and tribunals, played a central role in formalizing the process. These institutions not only provided a forum for resolving disputes but also helped to establish a clear distinction between legal matters and personal or political considerations. As a result, the modern concept of litigation, with its focus on procedure, fairness, and impartiality, took shape, laying the groundwork for the legal systems we recognize today.[3]

It is undeniable that while litigation has evolved into a cornerstone of modern legal systems, it is not without its significant challenges. These issues have become increasingly apparent as society's needs have changed, revealing fundamental shortcomings in the litigation process. One of the primary concerns is the societal need for legal unification. In many jurisdictions, the legal system may be fragmented or inconsistent, with variations in the application of laws depending on factors such as geographic location or specific courts. This lack of uniformity can lead to uncertainty and inequity, as citizens may face different outcomes for similar cases depending on where and how they are adjudicated. As society grows more

[3] Davide Carneiro · Paulo Novais · Francisco Andrade ·John Zeleznikow · José Neves. Online dispute resolution: an artificial intelligence perspective.3 January 2012. Springer Science+Business Media B.V. 2011.p212. https://research.ebsco.com/c/vzvkqq/viewer/pdf/bw6ejkm55j?route=details

interconnected, the demand for a more unified and standardized legal framework has become pressing. Additionally, the possibility of implementation remains a critical issue. Even when courts render judgments, the practical ability to enforce these decisions is often hindered by a range of factors. These can include insufficient resources, complex legal procedures, or a lack of effective enforcement mechanisms. In cases where enforcement is weak, the legal system can appear ineffective, undermining public trust and confidence in the courts. Another significant challenge in litigation is the protection of individual rights and ensuring that all citizens have equal access to the judiciary. While the right to access the courts is a fundamental principle of justice, there are barriers—both tangible and intangible—that prevent many individuals from exercising this right. For instance, marginalized or lower-income groups may face financial barriers due to high legal costs, which can be a substantial burden. In many cases, the cost of legal representation, court fees, and associated expenses becomes prohibitive, leading to unequal access to justice. Moreover, complex formalities often accompany the litigation process. Legal procedures can be intricate and difficult to navigate, especially for those who lack legal expertise. This complexity not only adds to the costs but also deters individuals from pursuing legal action, leaving them without a remedy or resolution for their disputes. As a result, litigation, which should ideally serve to resolve disputes efficiently and fairly, becomes increasingly distant from its original purpose of providing equitable access to justice. As these challenges mount, litigation risks becoming more disconnected from its foundational goal: to ensure that all individuals, regardless of status or means, have the right to resort to the courts and seek justice. The increasing difficulty and expense of litigation threaten to alienate large segments of society from the legal system, further deepening inequalities and hindering the broader aim of providing equal protection under the law. These issues have spurred ongoing discussions about the need for reform in the legal system, with some advocating for alternatives such as Alternative Dispute Resolution (ADR) or Online Dispute Resolution (ODR) as potential solutions. Such approaches aim to address these shortcomings by offering more accessible, efficient, and cost-effective means for resolving disputes, thereby ensuring that the principle of equal access to justice is upheld.[4]

In the mid-twentieth century, the growing challenges of traditional litigation, coupled with the rapid societal changes and advancements that took place during the late nineteenth and early twentieth centuries, made it increasingly necessary to seek alternatives to the

[4] John Zeleznikow. Can Artificial Intelligence and Online Dispute Resolution Enhance Efficiency And Effectiveness In Courts. International Journal for Court Administration Vol. 8 No. 2, May 2017.p30. https://heinonline.org/HOL/Page?handle=hein.journals/ijca8&id=105

conventional court-based dispute resolution systems. These traditional methods were often slow, costly, and complex, leading to a backlog of cases and limited access to justice for many individuals. In response, a new approach emerged, known as Alternative Dispute Resolution (ADR), which offers a range of flexible and organized mechanisms for resolving disputes outside the formal court system. ADR represents a shift in focus from the adversarial nature of litigation to more cooperative and negotiated approaches. Instead of parties engaging in prolonged court battles, which can take years to resolve, ADR emphasizes finding solutions through dialogue and mutual agreement. The underlying principle of ADR is to facilitate communication between disputing parties, allowing them to collaborate in finding solutions that are acceptable to all involved. Key mechanisms within ADR include negotiation, mediation, conciliation, and arbitration, each of which provides distinct advantages over traditional litigation:[5]

- Negotiation: This is a direct and informal process where parties attempt to reach a resolution through dialogue. It is often the first step in ADR and allows the parties to maintain control over the outcome without involving a third party.
- Mediation: In mediation, a neutral third party, known as the mediator, facilitates discussions between the parties and helps them identify mutually agreeable solutions. Unlike a judge, the mediator does not have the power to make binding decisions, but rather encourages communication and compromise.
- Conciliation: Similar to mediation, conciliation involves a third-party conciliator who works with the parties to improve communication and suggest solutions. However, conciliators may play a more active role in proposing settlements, providing a blend of mediation and arbitration processes.
- Arbitration: This process involves a neutral third party, known as the arbitrator, who listens to both sides of the dispute and makes a binding decision. Arbitration is more formal than mediation or conciliation but is typically faster and less costly than going to court.

These ADR processes are designed to address the main shortcomings of traditional litigation, such as high costs, lengthy timeframes, and complex procedures. By offering faster, more affordable, and often more flexible means of resolving disputes, ADR allows parties to

[5] JOSHUA IMMANUEL SAMUEL. The Extent of Integration ,ndividuals',persons ,,, of Artificial Intelligence in Alternative Dispute
Resolution. International Journal of Law Management & Humanities [Vol. 5 Iss 6; 333].p335. https://heinonline.org/HOL/Page?handle=hein.journals/ijlmhs20&id=333

find solutions that work for them while maintaining a focus on efficiency and mutual satisfaction. Moreover, ADR methods generally foster more cooperative relationships between the parties involved. As these processes are typically less formal and adversarial than litigation, they can lead to outcomes that are more creative and tailored to the specific needs of the individuals or entities involved. This, in turn, can help preserve business relationships, improve communication, and reduce the likelihood of ongoing disputes. Ultimately, the rise of ADR was a response to the growing need for more efficient, accessible, and cost-effective methods of dispute resolution. As the world continued to evolve rapidly, the development of ADR mechanisms helped the legal system adapt to new realities, providing an alternative that better matched the pace of modern life. Today, ADR is widely recognized as a valuable tool in resolving disputes across various fields, from family law to commercial contracts and beyond.

Looking back at ancient societies, it becomes clear that Alternative Dispute Resolution (ADR) mechanisms have deep historical roots, predating modern legal systems by centuries. In many early cultures, ADR was an integral part of the legal process, often managed by respected community figures such as elders, tribal leaders, or religious authorities known for their wisdom, integrity, and impartiality. These figures played a critical role in facilitating dialogue and reconciliation, helping to resolve disputes without resorting to formal court proceedings.

In Islamic jurisprudence, the concept of reconciliation and peaceful resolution of disputes was emphasized. Islamic law (Sharia) encourages the resolution of conflicts through negotiation and mediation, and these methods were widely used in the historical Islamic world. Religious leaders or qadis (judges) often served as mediators, guiding parties to amicable resolutions and encouraging forgiveness and compromise. Similarly, in ancient China, Confucian philosophy emphasized the importance of harmony and social order, and mediation was seen as the preferred means of resolving disputes. Confucian ideals focused on relationships and balance, and elders or respected individuals would often mediate disputes within families or communities to restore peace. In India, particularly in rural areas, village councils (known as panchayats) played a significant role in resolving disputes outside the formal court system. These councils, composed of respected community leaders, were tasked with maintaining order and resolving conflicts, often through consensus-building and mediation. The panchayat system is still prevalent in many parts of India today, highlighting its enduring influence. Even in ancient England, ADR practices existed, especially in the context of commercial disputes. Mercantile law, which governed business transactions, often relied on arbitration and mediation, enabling merchants to resolve their disagreements without

resorting to the slow and formal court processes of the time. As mentioned earlier, the legal framework for ADR began to formalize in the 20th century, particularly in the United States. Recognizing the need to alleviate the burden on overburdened traditional courts, U.S. courts began to actively encourage forms of ADR such as arbitration and mediation. This move helped reduce the growing backlog of cases, offering a quicker, more cost-effective means of resolving disputes. By promoting ADR, the legal system aimed to provide a more accessible form of justice, offering parties a means of resolving their conflicts efficiently and often more amicably than through the formal litigation process. As ADR evolved, it became recognized not only as a means of reducing court congestion but also as an approach that could provide more flexibility, confidentiality, and party autonomy in resolving disputes. Today, ADR is widely used across various legal systems globally, with its roots in these ancient practices still influencing modern methods of dispute resolution.[6]

Modern Online Dispute Resolution (ODR) retains several key structural features that have long been central to traditional Alternative Dispute Resolution (ADR) practices. Both ODR and traditional ADR emphasize dialogue, trust-building, and consensual settlement as core components of the dispute resolution process. This commonality suggests that ODR does not replace traditional conciliatory practices but rather extends and adapts them through technological means. Rather than representing a radical shift, ODR can be seen as a technological evolution that preserves the relational and communicative values at the heart of earlier dispute settlement methods. Historically, ADR methods like mediation and arbitration were grounded in direct interpersonal interactions, where parties worked together to reach mutually agreeable solutions with the help of a neutral third party. Similarly, ODR platforms seek to maintain these foundational principles while utilizing technology to streamline communication and make the process more accessible. The continuity between ADR and ODR highlights the importance of designing digital platforms that not only address the logistical and procedural aspects of dispute resolution but also respect the qualitative dimensions of negotiation. The digital environment must facilitate meaningful communication, trust-building, and the potential for collaboration. For instance, ODR systems should provide opportunities for parties to interact in a way that encourages understanding and compromise, just as traditional face-to-face processes would. Moreover, ODR platforms can offer unique advantages, such as greater accessibility, cost-effectiveness, and the ability to handle disputes

[6] Faisal Younas. Alternative Dispute Resolution (ADR) Future of Justice System. International Journal of Law and Policy | Volume: 3, Issue: 9.2025.p34. https://doi.org/10.59022/ijlp.365-

across geographical boundaries. However, these benefits should not overshadow the need for platforms to preserve the core values of ADR—fairness, transparency, and the willingness to reach a mutually satisfactory outcome. Effective ODR designs should integrate features that support these values, such as clear communication channels, secure information exchanges, and tools that promote informed decision-making. In this sense, ODR serves as a modern extension of traditional ADR, rather than a replacement. It leverages technology to enhance the reach and efficiency of dispute resolution while still upholding the foundational principles of cooperation and consensus that have long characterized ADR practices. By prioritizing these qualitative aspects in the design of digital platforms, ODR can continue to foster collaborative dispute resolution, ensuring that the process remains not only effective but also human-centered and respectful of the parties' needs and concerns.[7]

With the rapid advancement of technology and science, litigation processes have evolved to become increasingly remote or semi-remote, giving rise to what is now known as Online Dispute Resolution (ODR). This shift has been driven by the integration of digital technologies, which allow parties to resolve disputes without the need for physical presence in a courtroom. As technological capabilities have grown, artificial intelligence (AI) has emerged as a key tool that can potentially transform ODR systems by facilitating and accelerating the litigation process. AI's ability to analyze large amounts of data, generate predictions, and assist in decision-making is particularly valuable in the context of dispute resolution, where speed and accuracy are crucial. However, as AI becomes more integrated into ODR systems, researchers and academics have highlighted the importance of framing and supervising this integration. It is essential to ensure that AI systems are implemented in a way that maximizes efficiency while minimizing the risk of errors. AI, if not properly monitored and regulated, could introduce biases, inaccuracies, or even undermine the integrity of the dispute resolution process. Therefore, ensuring effective oversight and accountability is necessary to achieve the best possible outcomes in ODR systems. The growth of ODR over the past twenty years has been largely fueled by technological advancements and the support these technologies offer to decision-makers. These developments have helped streamline processes, reduce costs, and make the legal system more accessible to people across geographical boundaries. Despite these benefits, the primary role of the judicial and legal system remains unchanged: to facilitate access to truth and justice. However, obstacles sometimes arise that hinder this process. For instance, a lack of awareness about individuals' rights or an inability to identify their needs can

[7] Ibid.

prevent people from effectively engaging with formal dispute resolution channels. This can create a significant barrier to justice, particularly for those who may lack the resources or knowledge to navigate the legal system. Given these challenges, it is crucial for any technology designed to offer alternative dispute resolution (ADR)—including ODR— to prioritize the communication process. Effective communication is vital for understanding the nature of a dispute, the needs of the parties involved, and the appropriate path toward resolution. In ODR systems, this means creating platforms that facilitate clear, transparent, and empathetic exchanges between parties, even in a digital environment. Technologies should not only streamline procedural steps but also ensure that individuals can fully articulate their concerns and understand the steps involved in resolving. By focusing on communication, ODR can contribute to achieving a resolution that does not just settle disputes but does so in a way that is fair, transparent, and just for all parties involved. This aligns with the broader goal of alternative dispute resolution: to make justice more accessible and effective while accommodating the realities of the digital age. The ongoing integration of AI and other technologies into ODR systems has the potential to revolutionize the way disputes are resolved, but this can only be successful if the technological tools are carefully designed and monitored to ensure they foster clear, meaningful communication and promote a just outcome for all.[8]

.2. Types of Dispute Resolution

Dispute resolution mechanisms encompass a variety of methods that disputing parties can use to address their conflicts, whether through the formal court system or outside it. These mechanisms can generally be categorized into judicial and consensual procedures, depending on whether the outcome is imposed by a third party, such as the state, or reached through mutual agreement between the parties involved.

.2.1. Litigation

Litigation is the formal process of resolving legal disputes through the court system. It typically progresses through several distinct stages that guide the case from its initiation to its final resolution. By understanding these stages, both plaintiffs and defendants can better prepare for the proceedings and understand their rights and obligations at each step. Below is a breakdown of the initial stages in the litigation process:"[9]

[8] Okwerede Emmanuel. Online Dispute Resolution: Communication Challenges and Opportunities. Eurasian Experiment Journal of Arts and Management. Volume 7 Issue 2 2025.p18. https://www.eejournals.org

[9] Allen A. Shoikhetbrod, September 4, 2024, What to Know About the Stages of Litigation https://www.tullylegal.com/resources/articles/what-to-know-about-the-stages-of-litigation/

- **Investigation:** At the outset, the disputing parties engage in investigation. This stage involves gathering relevant evidence, interviewing witnesses, and possibly hiring investigators to gather additional facts that might support the case. The objective is to understand the facts and legal issues surrounding the dispute. In this stage, both sides are preparing for the possibility of litigation and seeking evidence that can be used in court. The information collected during the investigation will inform the decisions made later in the process, including whether to file a lawsuit or attempt settlement.
- **Pleadings:** Once the decision to move forward with litigation is made, the pleadings stage follows. This is where the formal written documents outlining the parties' claims and defenses are filed with the court.
- **Plaintiff's Complaint**: The plaintiff initiates the process by filing a complaint, also known as a petition, in which they detail the allegations against the defendant. The complaint outlines the legal grounds for the case and specifies the relief or compensation sought. This may include monetary damages, injunctive relief, or other remedies.
- **Defendant's Response**: The defendant is then required to respond to the complaint. This may involve filing an answer where they admit or deny the allegations and may assert affirmative defenses or counterclaims. The defendant might also file a motion to dismiss, requesting the court to reject the case before proceeding further. This stage sets the framework for the case, as the pleadings outline the issues that the court will address. Once the pleadings are filed and exchanged, the case proceeds to the next phase, which often involves discovery and preparation for trial.

.2.2. Disclosure

After the pleadings are filed, the next stage in litigation is disclosure (also known as discovery in some jurisdictions). During this phase, both parties exchange information that is relevant to the case. This may include documents, statements, depositions, and interrogatories. The primary goal of disclosure is to enhance transparency by providing both sides with access to the evidence that will be used in the case, allowing for a fair and informed trial.

- **Statements**: Written or oral testimonies from parties involved in the dispute.
- **Depositions**: Sworn, out-of-court testimony taken from witnesses or parties.
- **Interrogatories**: Written questions sent by one party to the other, which must be answered in writing and under oath.

Disclosure ensures that both parties have a clear understanding of the evidence available, helping them prepare for trial and reducing surprises. This process can also encourage settlement before the case reaches the trial stage.

.2.3. Trial

If the case does not settle during the pre-trial stages, it proceeds to trial, where both parties present their arguments, evidence, and witness testimony before a judge or jury. The trial is the forum where each party has the opportunity to persuade the court of the merits of their case. The trial process includes:

1. **Opening Statements**: Each party presents an overview of their case and what they intend to prove.
2. **Presentation of Evidence**: Both sides present evidence, including documents, physical evidence, and witness testimony.
3. **Cross-Examination**: Each party has the opportunity to question the other party's witnesses to challenge their credibility or the facts presented.
4. **Closing Statements**: After all the evidence is presented, both parties make final arguments, summarizing the key points of their case.
5. **Judgment**: After deliberation, the judge or jury delivers a verdict, resolving the dispute and deciding on remedies or damages if applicable.

While traditional litigation remains an essential part of the legal process, it has increasingly become the last option for many litigants. Due to the high costs, long timeframes, and complexity, many parties now seek faster and more adaptable solutions. This trend has contributed to the growing use of Alternative Dispute Resolution (ADR) and Online Dispute Resolution (ODR), both of which are discuss in the next section.

.2.4. Alternative Dispute Resolution (ADR)

Alternative Dispute Resolution (ADR) is an umbrella term encompassing various methods, including negotiation, mediation, conciliation, and arbitration, designed to resolve disputes outside the traditional court system. These methods offer flexible, collaborative, and often quicker alternatives to litigation. ADR can be particularly beneficial in cases were preserving relationships or maintaining confidentiality is essential.

1. **Negotiation**: A direct discussion between parties to reach a mutual agreement without involving a third party.
2. **Mediation**: A neutral third party (mediator) helps facilitate communication between the parties to settle.

3. **Conciliation**: Similar to mediation, but the conciliator may suggest solutions or terms for the parties to consider.
4. **Arbitration**: A neutral third party (arbitrator) hears the dispute and makes a binding decision, much like a court judgment, but typically faster and more informal.

ADR can complement judicial arbitration by providing procedures tailored to the specific needs of the case. Unlike traditional litigation, ADR is often confidential and preserves commercial relationships, making it an attractive option for businesses or parties involved in ongoing relationships.

Theoretical demands in dispute resolution increasingly emphasize the need for timely decisions. ADR, by offering quicker resolutions and more adaptable processes, addresses this need, avoiding the delays often associated with traditional litigation. As a result, ADR has become a preferred choice for many parties seeking efficiency, confidentiality, and flexibility in resolving disputes.[10] Modern alternative dispute resolution began to gain prominence in the 1990s as systems were developed to eliminate the delays and expenses of traditional litigation his transformation has been facilitated by the increasing reliance on information technology and the move towards collaborative solutions to resolve disputes, especially in trade in general, as traders want to resolve the dispute as quickly as possible to avoid losing money, At the same time, alternative dispute resolution solutions have shifted from informal, party-based practices to institutionally supported programs and court-affiliated schemes, giving them a formal status in the delivery of justice.[11]

- **Negotiation**: Negotiation is a process in which parties communicate and attempt, directly or through their representatives, to reach an agreement without resorting to a third party. It is considered the simplest and most flexible form of alternative dispute resolution.[12]
- **Mediation**: Mediation is based on adding a neutral party that facilitates the dialogue process, this party tries to bring viewpoints closer together and can also suggest options and solutions, leaving the final decision to the parties, of course, because its nature is non-binding, however, it considers the preservation of relationships and reducing time and cost, without forgetting to emphasize the basic features of confidentiality, integrity,

[10] Ravinath Jayasinghe. How Alternative Dispute Resolution differs from Litigation. https://www.researchgate.net/publication/381637064
[11] Younas, F. (2025). Alternative Dispute Resolution (ADR) Future of Justice System. *International Journal of Law and Policy*, *3* (9), 33-49. https://doi.org/10.59022/ijlp.365
[12] Ravinath Jayasinghe. How Alternative Dispute Resolution differs from Litigation. https://www.researchgate.net/publication/381637064

and the competence of the mediator, in addition to organized steps that encourage problem-solving.[13]

Today, many national legislations aim to establish and encourage mediation, for example, UAE Law No. 40 of 2023 on Mediation and Conciliation. This law stipulates the qualifications of the mediator and the acceptance of the solutions proposed by him as enforceable after their approval by the courts.[14] Also, similar legislation efforts exist across the European Union, the EU directive 2013/11/EU, which urges Member States to devote their efforts to mediation in cross-border civil and commercial disputes. [15] Procedurally, mediation goes through several basic stages: initiation, preparation, joint discussion, private meetings if necessary, and finally, the final agreement, at each stage, the mediator must maintain integrity and confidentiality Mediation begins with the process of consent of the disputing parties and the selection of a highly qualified mediator who facilitates the communication process and leads to a solution based on the interests of all parties.[16]

- **Conciliation**: Conciliation means appointing a neutral third party; mediation is the same thing, but with more effective roles in providing possible solutions to resolve the dispute. One of the similarities between them is the focus on cooperation, trust, and compromise, which makes them effective and desirable methods for the parties without the need to resort to the courts.[17]
- **Arbitration**: "Arbitration is another prominent ADR mechanism, often considered a substitute for litigation in commercial and international disputes. In arbitration, parties agree to submit their conflict to an impartial arbitrator or a panel of arbitrators, whose decision, known as an "award," is legally binding.[18]

The integration of artificial intelligence (AI) into Alternative Dispute Resolution (ADR) presents both significant opportunities and critical challenges. While AI can enhance efficiency, speed, and cost-effectiveness by assisting in research, document drafting,

[13] Naser Sherman, Bashar Talal Momani. Alternative dispute resolution: Mediation as a model. F1000Research 2025.p3. https://doi.org/10.12688/f1000research.152362.2
[14] Naser Sherman, Bashar Talal Momani. Alternative dispute resolution: Mediation as a model. F1000Research 2025.p3
[15] GYURÁSZ, Z., KRKOŠKOVÁ, E. Artificial Intelligence Driven Alternative Dispute Resolution. *European Studies – the Review of European law, Economics and Politics*. 2024, vol. 11, no. 2, pp. 34, DOI: 10.2478/eustu-2024-0015
[16] Naser Sherman, Bashar Talal Momani. Alternative dispute resolution: Mediation as a model. F1000Research 2025.p4
[17] Younas, F. (2025). Alternative Dispute Resolution (ADR) Future of Justice System. *International Journal of Law and Policy, 3* (9), 37
[18] Younas, F. (2025). Alternative Dispute Resolution (ADR) Future of Justice System. *International Journal of Law and Policy, 3* (9), 36,37

scheduling, and even negotiations, its involvement raises profound concerns, particularly around data security and privacy. The use of AI systems to handle sensitive information in ADR processes heightens the risk of data breaches, especially if these systems are inadequately secured. Moreover, AI's potential to introduce bias due to flawed training data could compromise fairness, leading to unjust outcomes. This is compounded by the lack of transparency in how AI makes decisions or recommendations, which undermines trust in the system. Additionally, while AI can assist in routine tasks, it cannot replace the ethical judgment and nuanced understanding that human mediators or arbitrators bring, particularly in complex or high-stakes disputes. Consequently, the challenge lies in ensuring AI's role in ADR complements human decision-making without undermining fairness, privacy, or accountability.[19] Arbitration procedures are like court procedures in that the parties determine basic elements such as the applicable law, the number of arbitrators, the language, and procedural rules. Hearings enable the presentation of arguments, after which the arbitrators discuss them and issue an arbitration award. This award is considered final and is sometimes subject to limited judicial review to ensure legal procedures and public policy.[20]

However, arbitration has drawbacks and shortcomings that must be mentioned. In some cases, it may be costly, especially when several arbitrators or international institutions participate, and the limited appeal mechanisms may cause harm in the event of a serious error.[21] Arbitral institutions have begun to incorporate technology-assisted procedures in response to long-standing concerns about cost, delay, and administrative burden. Bodies such as the ICC and LCIA now encourage the use of remote hearings, electronic submissions, and AI-supported document review to streamline case management and reduce logistical constraints. These developments indicate that arbitration is gradually evolving into a hybrid system in which technological tools complement, rather than replace, human judgment. By integrating these innovations, institutions aim to enhance procedural efficiency while preserving the core principles of party autonomy, confidentiality, and neutrality that define arbitral practice.[22] The following subchapter addresses the resolution of disputes via the Internet, which has become

[19] Younas, F. (2025). Alternative Dispute Resolution (ADR) Future of Justice System. *International Journal of Law and Policy, 3* (9), 36,37

[20] Younas, F. (2025). Alternative Dispute Resolution (ADR) Future of Justice System. *International Journal of Law and Policy, 3* (9), 37

[21] Ravinath Jayasinghe. How Alternative Dispute Resolution differs from Litigation.

[22] Allen A. Shoikhetbrod, September 4, 2024, What to Know About the Stages of Litigation https://www.tullylegal.com/resources/articles/what-to-know-about-the-stages-of-litigation/>

increasingly important in the current environment due to digital development and cross-border transactions.

.2.5. Online Dispute Resolution

"In relation to the resolution of online consumer disputes, our legal system faces a crucial choice: either to adopt traditional dispute resolution methods that have served our legal systems well for hundreds of years or to find a new method that is better suited to a world not anchored in jurisdiction and identity. In the borderless online marketplace, parties located in different parts of the world make contracts with each other at the click of a mouse. In this virtual environment, where activities take place among strangers, the potential for misunderstanding, error, and fraud is heightened. However, litigation in e-commerce disputes is often inconvenient, time-consuming, and expensive, owing to the low value of the transactions and the physical distance between the parties. Furthermore, courts may lack the resources and the expertise to keep up with the growth in cross-border disputes arising out of an ever-emerging e-commerce."[23] While it is considered a digital extension of alternative dispute resolution, online dispute resolution adapts procedures to the online context, allowing for faster, less costly, and geographically unlimited interaction, features that have led it to take on a larger scope in e-commerce and cross-continental disputes.[24] In practice, online dispute resolution platforms support negotiation, mediation, and arbitration processes, often within the same framework as standard processes.[25] Historically, online dispute resolution began to gain traction in the mid-1990s through pilot projects at universities such as the Virtual Magistrate, the Online Mediation Project, and the CyberTribunal in Montreal, before the introduction of commercial services for B2B and B2C.[26] In the European Union, online dispute resolution has been formulated as a consumer redress strategy to bridge the implementation gap in low-value, cross-border disputes, with a focus on establishing precise standards to enhance trust and ensure due process.[27] The online dispute resolution system finds a broader scope. It is more

[23] Cortés, Pablo. Online Dispute Resolution for Consumers in the European Union, Taylor & Francis Group, 2010. ProQuest Ebook Central, p3 https://ebookcentral.proquest.com/lib/viluniv-ebooks/detail.action?docID=557277.

[24] Wang, Faye Fangfei. *Online Dispute Resolution : Technology, Management and Legal Practice from an International Perspective*. Oxford: Chandos, 2009. Web. P.23. https://www.sciencedirect.com/book/monograph/9781843345190/online-dispute-resolution#book-info

[25] Mishra, A., Kharat, M., Sonawane, A., Shukla, S., and Maurya, S. K. (2024). Online Dispute Resolution: A Modern Art of Adjudication. ShodhKosh: Journal of Visual and Performing Arts, 5(1), 2237. doi: 10.29121/shodhkosh.v5.i1.2024.2310

[26] Cortés, Pablo. Online Dispute Resolution for Consumers in the European Union, Taylor & Francis Group, 2010. ProQuest Ebook Central, p3

[27] Cortés, Pablo. Online Dispute Resolution for Consumers in the European Union, p23

widely applied in e-commerce, which has become an integral part of the contemporary Internet-based way of life. Additionally, the online dispute resolution system has restored hope to low-value disputes that their owners would not otherwise pursue due to the difficulty of litigation. Still, the matter is different now with this system that has restored a kind of life to low-value disputes.[28]

All of what is mentioned above has brought a new and very important player onto the stage, and it is the focus of the research on artificial intelligence and the added value this player can bring to any field, particularly in resolving Internet disputes. With its help, the time can be reduced and facilitate the entire process, while maintaining human judgment.[29] Empirical studies consistently show that user trust in online dispute resolution (ODR) systems depends on perceptions of procedural fairness, clarity of communication, and the overall quality of the platform interface. Users are more likely to accept outcomes when processes are transparent, explanations are accessible, and system behaviour is predictable. Research also highlights that the presence of meaningful human oversight—whether through review mechanisms or opportunities for human intervention—significantly increases confidence in digital decision-support tools. Together, these factors demonstrate that trust in ODR is shaped as much by design and governance choices as by technological capability.[30] For example, we take some platforms dedicated to online dispute resolution, including, the Regulation (EU) 2024/3228 of the European Parliament and of the Council of 19 December 2024 repealing Regulation (EU) No 524/2013 and amending Regulations (EU) 2017/2394 and (EU) 2018/1724 concerning the discontinuation of the European Online Dispute Resolution Platform**.** Also, Modria, a platform founded in collaboration between eBay and the American Arbitration Association (AAA), offers a platform for online mediation, negotiation, and arbitration, and going to the far east, specifically China, they also have an online platform called China International Economic and Trade Arbitration Commission (CIETAC). With the increasing adoption of digital technologies for dispute resolution, attention has shifted toward systems that could think and find solutions, we can consider generative AI a turning point that will change the equation in the present and the future, as this AI goes beyond simple operations such as data processing and generating texts and images to develop what can be considered a direct influence on legal outcomes, therefore, it has become necessary to understand the concept of generative AI, give it a legal character and frame it with legal texts, it is an inevitable matter Rather, it has become strongly

[28] Cortés, Pablo. Online Dispute Resolution for Consumers in the European Union, p24
[29] GYURÁSZ, Z., KRKOŠKOVÁ, E. Artificial Intelligence Driven Alternative Dispute Resolution. p.36
[30] Ibid. 56.

imposed so that we can evaluate its legitimacy, reliability and compatibility with existing legal frameworks or attempt to find a middle ground.

.3. Concept and Legal Recognition of Generative Artificial Intelligence

The history of generative artificial intelligence is not recent, it has a long history dating back to the 1950s, with the advent of the new century and the advancement of technological techniques such as deep learning using neural networks, which significantly contributed to the development of highly capable generative AI systems capable of producing numerous intellectual outputs, in addition to images, videos, and programming code, the invention of transformers further accelerated the development of AI in natural language processing tasks (English), the release of the "Generative Pre-trained Transformer 3" (GPT-3) model by OpenAI in the spring of 2020 marked a significant milestone, and we now have the advanced fifth generation, the first model was trained on approximately 500 billion tokens, which were collected by computers from the internet.[31]

Generative AI relies on machine learning systems that are capable of generating new content, such as text, images, video, and coding, by relying on the process of integrating statistical regularities into large groups and taking samples from those learned distributions .[32]The commercial release of generative AI models in late 2022 has expanded the scope and importance of it, prompting legislative and legal experts to raise questions about the legal impact of this generative AI[33]. We have the European Union is always a pioneer in framing new phenomena. The law adopted in 2024 calls for a risk-based regulatory structure that addresses general and generative models, which represents a major step towards full legal recognition.[34]

Now moving to the technical foundation of GENAI, Generative AI differs from traditional discriminative systems that rely on classification or predictive labeling, Generative AI relies on providing results based on underlying stimuli or variables, this ability comes from advances in deep learning and training systems that learn data distributions, After a quick defining feature for GENAI now we are moving to explain what the core model families are 3

[31] (Tom Melham. The Cambridge Handbook of Generative AI and the Law , pp. 3 – 10. Cambridge University Press. 08 August 2025. https://doi.org/10.1017/9781009492553.004)
[32] Hatice Kübra KILINÇ, Ö. Fatih KEÇECİOĞLU. Generative Artificial Intelligence: A Historical and Future Perspective. Academic Platform Journal of Engineering and Smart Systems · February 2024DOI:10.21541/apjess.1398155. p48. https://doi.org/10.21541/apjess.1398155
[33] Niklas Humble, Peter Mozelius. Generative Artificial Intelligence and the Impact on Sustainability. Conference: International Conference on AI Research (ICAIR 2024) At: Lisbon, Portugal. DOI: 10.34190/icair.4.1.3024. p4
[34] Marco Almada. Will the EU Al Act Shape Global Regulation? .2025 NETWORK L. REV. 30.p30. https://heinonline.org/HOL/Page?handle=hein.journals/ntwklwrvw2025&id=30

types of core model families Generative Adversarial Networks (GANs), Transformer-based Large Language Models (LLMs)and Multimodal and diffusion-style systems.[35]

Generative Adversarial Networks (GANs): "GANs are one of the most popular techniques in generative artificial intelligence. They consist of two main components: the generator and the discriminator. While the generator aims to produce new data samples, the discriminator tries to distinguish between these samples as real or fake. This involves a continuous competition based on game theory, ultimately resulting in the generation of more realistic data."[36] LLMs are the most influential and widely used in several fields. Transformer-based Large Language Models (LLMs): Large language models (LLMs) like GPT-5 and their applications rely on a vast array of deep neural network components. As previously mentioned, GPT is a type of large language model that utilises the transformer architecture introduced by the Google Brain team in 2017. Transformers are somewhat complex, which has puzzled many researchers trying to understand why these systems are so effective. The inevitable conclusion they reached is that this system relies on a technology and methodology more suitable for large-scale parallel computing on modern computers used in machine learning, compared to previous generative AI based on recurrent neural networks. Another reason for the success of these language models is that the learning algorithms used to build them belong to the category of self-supervised learning methods. This means that these models do not require labeled or categorized training data, which simplifies the training process. However, it is important to remember that these systems can make mistakes; therefore, human review is necessary to ensure their compliance with applicable regulations and laws.[37]

A key distinction in current scholarship on large language models (LLMs) is between functional autonomy and decisional autonomy. Functional autonomy refers to an AI system's capacity to operate without continuous human input, such as generating text or summarising documents. Decisional independence, by contrast, involves the formation of legal intent, interpretive judgment, or independent reasoning—capacities that LLMs do not possess. Although LLMs can produce sophisticated outputs, they do not understand legal norms or assume responsibility for their implications. This distinction underscores the need to treat

[35] Hatice Kübra KILINÇ, Ö. Fatih KEÇECİOĞLU. Generative Artificial Intelligence: A Historical and Future Perspective.p50
[36] Hatice Kübra KILINÇ, Ö. Fatih KEÇECİOĞLU. Generative Artificial Intelligence: A Historical and Future Perspective.p50
[37] Tom Melham. The Cambridge Handbook of Generative AI and the Law , pp. 3 – 10. Cambridge University Press. 08 August 2025.https://doi.org/10.1017/9781009492553.004).

LLMs as assistive tools whose outputs require human evaluation and validation within any legal context.[38]

Generative AI is distinguished from other systems in that it speeds up the process of formulating, analysing, and producing content, but it is not without shortcomings, such as bias and the amplification of errors, which are limitations with legal consequences when the results lead to raising rights or obligations.[39] As a result, many researchers, academics, and legal experts are sounding the alarm about the need to frame this intelligence as a support tool rather than an independent decision-making process, and what raise many questions about social and ethical dimensions, sustainability literature is emerging as an essential factor in the field, as generative AI's ability to manage resources is challenged by increased energy consumption resulting from training and reasoning, as well as the risks of bias and over-reliance, [40]Concerning cultural Impacts, Recent studies on the cultural impacts of AI raise alarm bells about the excessive and intensive use of algorithmic content, which is associated with cognitive overload and impaired attentional control. This raise concerns that generative content may negatively impact reflective thinking and diminish human creativity if used uncritically.[41]

Now moving to the legal recognition in the European Union. The AI Act's risk-based approach. Regulation (EU) 2024/1689 (the AI Act) adopts a multi-tiered framework that blends technical product-safety logics with fundamental-rights protection a multi-level framework that integrates the logic of technical product safety and the protection of fundamental rights, this law classifies systems according to risk, prohibits specific practices that imposed strict compliance with systems classified as high-risk, and adopts obligations specifically designed for general-purpose AI and foundation models.[42] The EU AI act cannot interpolate alone he needs another mechanisms who already in force (GDPR, DSA, CRA), As they work in cooperation and coordination, it can be said that they complement each other, as the General Data Protection Regulation (GDPR) establishes the foundations for legal processing, data

[38] Ian Goodfellow, Jean Pouget-Abadie, Mehdi Mirza, et al. *Generative Adversarial Networks (GANs)*. Conference: Neural Information Processing Systems (NeurIPS 2014), Montreal, Canada. DOI: 10.1109/NeurIPS.2014.1. p55.
[39] Niklas Humble, Peter Mozelius. Generative Artificial Intelligence and the Impact on Sustainability. Conference: International Conference on AI Research (ICAIR 2024) At: Lisbon, Portugal. DOI: 10.34190/icair.4.1.3024. p175
[40] Niklas Humble, Peter Mozelius. Generative Artificial Intelligence and the Impact on Sustainability. Conference: International Conference on AI Research (ICAIR 2024) At: Lisbon, Portugal. DOI: 10.34190/icair.4.1.3024. p176
[41] Burak ÇEBER. *GENERATIVE ARTIFICIAL INTELLIGENCE AND BRAIN ROT FROM AN ADVERTISING PERSPECTIVE\. The Turkish Online Journal of Design, Art and Communication – TOJDAC July 2025 Volume 15 Issue 3.p1164. https://doi.org/10.7456/tojdac.1674327*
[42] Marco Almada. Will the EU AI Act Shape Global Regulation? p31

minimization data protection and security impact assessments, and restrictions on automated decisions only with significant effects (Article 22), in addition to the right to human intervention and objection.[43] The (DSA) covers and frames the transparency and systemic risks of large platforms and search engines that increasingly integrate generative models into their ranking, recommendation, and content tools[44] The Cyber Resilience Act (CRA) emphasizes product security standards, complementing and enhancing the safety and authentication framework of the AI Act. These laws form a semi-integrated, multi-layered governance framework for algorithmic security, privacy, and trust that can serve as a model for other legislation to emulate.[45]

The application of artificial intelligence (AI), particularly generative AI, in Alternative Dispute Resolution (ADR) procedures has become increasingly necessary due to technological advancements and the evolving needs of legal systems. As AI continues to develop, it is not surprising that ADR procedures may eventually be fully automated through AI technologies. This transition will inevitably require AI systems to operate within established legal frameworks, which will need to evolve to keep pace with these rapid advancements. What is particularly intriguing is the potential for AI to transform dispute resolution in countries struggling with corruption, as AI systems can assist in decision-making without human intervention, reducing the risk of external influences that may distort the fairness of judicial outcomes. In these environments, AI could offer citizens a more reliable path to justice, bypassing the biases and pressures that often plague human decision-makers. However, despite the promise AI holds in enhancing fairness and efficiency, significant challenges remain in its implementation, especially given the internal and external factors that influence its deployment, such as political resistance, lack of infrastructure, and concerns about data security. As explored in the 2.1 section, AI has already been used in online dispute resolution (ODR) for tasks like triage, summarisation, and process management, albeit with human oversight. The integration of generative AI into these processes must be approached carefully, with a focus on transparency, bias elimination, and privacy protection to ensure that AI's involvement upholds the core values of fairness and accountability. The following section will shift from theoretical

[43] Marta Beltrán. AI algorithms under scrutiny: GDPR, DSA, AI Act and CRA as pillars for algorithmic security and privacy in the European Union. *Agencia Española de Protección de Datos (AEPD), Scientific Area, Innovation and Technology Division, C/Jorge Juan 6, 28001 Madrid, Spain.pp2,3.* *https://doi.org/10.1016/j.cose.2025.104628*

[44] Marta Beltrán. AI algorithms under scrutiny: GDPR, DSA, AI Act and CRA as pillars for algorithmic security and privacy in the European Union.p3

[45] Marta Beltrán. AI algorithms under scrutiny: GDPR, DSA, AI Act and CRA as pillars for algorithmic security and privacy in the European Union.p4

exploration to practical applications, analysing the mechanisms necessary to ensure AI's reliability and accountability in dispute resolution. A comparative study of AI's use in Europe and China will highlight the differences in policies and identify the most promising approaches for the future of AI in legal systems.

Part II

INTEGRATION OF GENERATIVE ARTIFICIAL INTELLIGENCE IN DISPUTE RESOLUTION

2.1. Reliability and Governance of Generative Artificial Intelligence in Dispute Resolution

The European Artificial Intelligence Act (EU AI ACT) did not use the term LLMs. It only made a weak reference to the term Gen AI, which was criticised by many researchers and stakeholders in this field. It was defined as follows in Article 3(63) of the regulation:" an AI model, including where such an AI model is trained with a large amount of data using self-supervision at scale, that displays significant generality and is capable of competently performing a wide range of distinct tasks regardless of the way the model is placed on the market and that can be integrated into a variety of downstream systems or applications, except AI models that are used for research, development or prototyping activities before they are placed on the market."[46]

The Artificial Intelligence Act sets out specific provisions for large language models, which fall within the broader category of general-purpose AI models, this category is further refined by the concept of high-impact capabilities, referring to models that mimic or surpass the capabilities of the most advanced general-purpose AI models (Article 3(64)), and which, in turn pose a systemic risk due to their impact on the internal market and the potential effects they could have on public health, public safety and other strategic areas.[47]

2.2. Reliability Through the EU AI Act: Architecture, Duties, and Enforcement

Reliability is a fundamental and essential condition for the legitimate use of generative AI in dispute resolution. In the European Union legal system, reliability is taken seriously. It is even regulated and framed through the risk obligations in the AI law, imposed on service providers and users throughout the system cycle, regarding dispute resolution (courts, tribunals, arbitration, mediation). Reliability is explained through these foundations, including ex ante risk management, documented data governance, the need for human framing and oversight, transparency, accuracy and cybersecurity.[48]

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[46] Tom Melham. The Cambridge Handbook of Generative AI and the Law , pp. 3 – 10. Cambridge University Press. 08 August 2025.https://doi.org/10.1017/9781009492553.004).

[47] Tom Melham. The Cambridge Handbook of Generative AI and the Law , pp. 3 – 10.

[48] Marta Beltrán. AI algorithms under scrutiny: GDPR, DSA, AI Act and CRA as pillars for algorithmic security and privacy in the European Union.p1

2.2. Scope, Definitions, and Structure of Obligation

The European Union Artificial Intelligence Act (EU AI Act) applies to a broad range of stakeholders involved in the development, deployment, and use of AI systems within the Union. It sets out specific provisions for providers who place AI systems or general-purpose AI models on the market or into service in the Union, regardless of whether these providers are established within the Union or in a third country. It also applies to deployers of AI systems that are established in the Union or where the output produced by the AI system is used within the Union. Additionally, importers and distributors of AI systems, as well as product manufacturers that incorporate AI systems into their products and offer them under their own name or trademark, fall under the scope of this Act. The Act also applies to authorized representatives of providers established outside the Union and to affected persons located within the Union who are impacted by the deployment of AI systems. For high-risk AI systems as classified under Article 6(1), which are related to products covered by Union harmonization legislation listed in Section B of Annex I, only specific provisions apply. These provisions include Article 6(1), Articles 102 to 109, and Article 112. Article 57 applies only if the requirements for high-risk AI systems under this Regulation have been integrated into the relevant Union harmonization legislation. The EU AI Act does not apply to areas outside the scope of Union law and does not affect the competences of Member States concerning national security. It excludes military, defense, or national security purposes, meaning the Regulation does not apply to AI systems used exclusively for these purposes, whether placed on the market or used with or without modification within the Union. Furthermore, the Act does not apply to public authorities in third countries or international organizations using AI systems for international cooperation in law enforcement or judicial cooperation with the Union or Member States, as long as these third parties provide adequate safeguards to protect the fundamental rights and freedoms of individuals. This regulatory framework ensures that the deployment of AI within the Union is managed in a way that balances technological advancement with the protection of individual rights. The exclusions related to national security and military use reflect a careful approach to respecting the sovereignty of Member States in sensitive areas. The inclusion of fundamental rights safeguards further highlights the need for responsible AI governance, emphasising the importance of ensuring AI systems do not undermine privacy, fairness, and other fundamental rights.[49]

[49] REGULATION (EU) 2024/1689 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 13 June 2024.art 2. http://data.europa.eu/eli/reg/2024/1689/oj

2.2.1. Definition: According to Regulation (EU) 2024/1689, Article 3, an AI system is defined as a machine-based system designed to operate with varying levels of autonomy, which may exhibit adaptiveness after deployment. The system is intended to infer from the input it receives how to generate outputs such as predictions, content, recommendations, or decisions that can influence physical or virtual environments. This broad definition underscores the potential applications of AI systems across various sectors, including those that impact decision-making processes and user interactions in both the physical and digital realms. Moving on to prohibited practices under the EU AI Act, Article 5 outlines specific actions that are banned due to their potential for harm. The article prohibits the placement on the market, putting into service, or use of an AI system that employs subliminal techniques beyond an individual's conscious awareness or uses purposefully manipulative or deceptive techniques. The objective or effect of these practices is to materially distort the behaviour of individuals or groups by impairing their ability to make informed decisions. This distortion can lead individuals to take decisions they otherwise would not have made, potentially causing significant harm to themselves or others. This provision aims to protect individuals' autonomy and ensure that AI systems are not used in ways that exploit or manipulate their decision-making processes.

Additionally, the EU AI Act requires that the European Commission publish annual reports on the use of real-time remote biometric identification systems in publicly accessible spaces for law enforcement purposes. These reports are to be based on aggregated data from Member States and should not include sensitive operational data related to law enforcement activities. This measure highlights the concern over privacy and transparency, ensuring that the use of AI in sensitive areas such as law enforcement is subject to oversight and accountability. These provisions are critical in ensuring that AI systems are deployed ethically, respecting individuals' rights to make informed decisions free from manipulation. By prohibiting certain harmful practices and mandating transparency in specific applications, the EU AI Act seeks to create a regulatory framework that promotes responsible AI usage while safeguarding fundamental rights.[50] This article prohibits unconscious manipulation and exploitation of the other party's weaknesses, and some biometric surveillance/identification in public places, with some exceptions, and subject to oversight and supervision. The logic followed here is structural. These practices cannot be made reliable and approved only by mitigating their effects because they pose a threat to the principle of independence, equality, dignity, and

[50] REGULATION (EU) 2024/1689 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 13 June 2024.art 2

privacy.[51] This decisive approach reflects the shared view between the Council and Parliament that some artificial intelligence systems pose a significant threat to fundamental rights, regardless of other criteria such as accuracy, reliability, or level of oversight.[52]

Prohibitions on manipulative AI practices play a critical role in safeguarding the integrity of adjudicative processes. When algorithmic systems influence parties' decisions through covert persuasion or behavioural steering, they risk undermining equality of arms and diminishing the voluntariness that underpins party autonomy. By restricting such practices, regulators aim to ensure that digital tools support rather than distort fair participation in dispute resolution. These safeguards help maintain a balanced procedural environment in which parties can present and contest claims on an equal footing, thereby preserving the legitimacy and credibility of both traditional and technology-enhanced adjudicative mechanisms.[53] Artificial intelligence systems that employ manipulative tactics that exceed the awareness and knowledge of the other party to distort behaviour, cause material, and are suspected of causing physical harm.[54] The second category of prohibited AI practices concerns those that exploit 'any of the vulnerabilities of a specific group of persons due to their age, physical or mental disability, to materially distort the behaviour of a person about that group in a manner that causes psychological harm'. The principal motive behind this provision is 'vulnerability', which is not exhaustively defined but is merely illustrated by the examples of specific vulnerable groups, such as children or persons with disabilities.[55]

2.2.2. Social Scoring: Systems that evaluate natural persons based on their expected social behaviour, temperament, and characteristics are prohibited when they lead to mistreatment or discrimination. Social assessment mechanisms rely heavily on the large-scale collection of information and data. These mechanisms are very similar to other behavioural influence techniques, such as motivation, which aim to redirect the human decision-making process. Moreover, these techniques are applied to companies and other influential areas such as environmental sustainability, social responsibility, and corporate governance (ESG) performance. Generative artificial intelligence and other technologies expand the prospects of

[51] Rostam J. Neuwirth. Prohibited artificial intelligence practices in the proposed EU artificial intelligence act (AIA). computer law & security review 48 (2023) 105798.p2. https://doi.org/10.1016/j.clsr.2023.105798
[52] Marta Beltrán. AI algorithms under scrutiny: GDPR, DSA, AI Act and CRA as pillars for algorithmic security and privacy in the European Union.p1
[53] Allen A. Shoikhetbrod, September 4, 2024, What to Know About the Stages of Litigation https://www.tullylegal.com/resources/articles/what-to-know-about-the-stages-of-litigation/.
[54] Marta Beltrán. AI algorithms under scrutiny: GDPR, DSA, AI Act and CRA as pillars for algorithmic security and privacy in the European Union.p1
[55] Marta Beltrán. AI algorithms under scrutiny: GDPR, DSA, AI Act and CRA as pillars for algorithmic security and privacy in the European Union.p2

new applications, enabling officials to assess and monitor data in various economic and social fields.[56]

2.2.3. Real-time Remote Biometric Identification in Publicly Accessible Spaces: Biometry generally refers to different methods of identifying people using physiological features. Probably the best-known system that uses biometric data is facial recognition technology (FRT), which has already raised concerns under the GDPR, the EU Charter of Fundamental Rights, and the Law Enforcement Directive. However, there exist many more biometric systems, including systems that use other features, such as fingerprints, irises, retinas, hand geometry, voices, signatures, palm-print features, and ears. As illustrated by the case of FRT, there are doubts about their accuracy and security. There are various forms of the digital manipulation of faces, such as deepfakes, that can be used to mislead identification systems, and which consequently, 'may lead to false decisions and thus decrease the reliability of the decision system[57]

2.3. High-Risk Systems: Engineering Reliability into Design and Use

The AI Act establishes several crucial requirements for high-risk AI systems directly relevant to algorithmic security and privacy (Articles 8 to 15). These include:

- Planning and running a continuous iterative risk management process throughout the entire lifecycle of the high-risk AI system (including cybersecurity risks), requiring regular, systematic review and updating.
- Ensuring that training, validation, and testing data sets are relevant, representative, and as free of errors and complete as possible.
- Requiring the creation and maintenance of detailed documentation that allows for the assessment of the AI system's compliance with the Act. This contributes to the transparency and auditability of algorithms.
- Mandating that deployers are provided with sufficient information to understand and use the AI system correctly, including its capabilities and limitations. For AI systems intended to interact with natural persons individuals should be informed that they are interacting with an AI system.
- Establishing the need for human oversight mechanisms to ensure that high-risk AI systems are used appropriately and that interventions can be made when necessary.

[56] Rostam J. Neuwirth. Prohibited artificial intelligence practices in the proposed EU artificial intelligence act (AIA). p9

[57] Marta Beltrán. AI algorithms under scrutiny: GDPR, DSA, AI Act and CRA as pillars for algorithmic security and privacy in the European Union.p1

- Requiring high-risk AI systems to achieve an appropriate level of accuracy and to be robust against manipulation, ensuring they perform consistently and reliably throughout their lifecycle.
- Obligating providers to implement measures to ensure adequate cybersecurity protection for high-risk AI systems, safeguarding them against threats.[58]

The Artificial Intelligence Law also imposes obligations on the various actors involved in the development, distribution, and use of high-risk AI systems (Articles 16 to 27). This may include conducting a fundamental rights impact assessment before deploying a high-risk AI system, the law also stipulates conformity assessment procedures to ensure compliance (Article 43), providers of high-risk AI systems are required to follow these procedures before bringing their systems to market, Finally the Artificial Intelligence Law sets out the requirements and obligations related to concerning general-purpose AI (GPAI) in Articles 51 to 55.[59]

2.4. Relationship with the GDPR/DSA/CRA: The Reliability Stack with the EU AI ACT

There are direct synergies where compliance with one regulation can facilitate compliance with others. These direct synergies can be clearly identified in pairs, between the GDPR and the DSA (with a strong focus on protecting the rights and freedoms of natural persons) and between the AI Act and the CRA (with a strong emphasis on product quality and conformity assessments).[60] The DSA aims to create a reliable, secure, and predictable internet environment, in line with the objectives of the General Data Protection Regulation (GDPR), which aims to protect individuals' about the processing of personal data. Article 26(3) of the DSA explicitly and directly prohibits the display of profiling-based advertisements using specific categories of personal data as stipulated in Article 9(1) of the GDPR, this provision of the DSA explicitly and directly reinforces the protections of the GDPR Sensitive personal data in the context of online advertising. Furthermore, the Digital Data Protection Act (DSA) mandates content management and immediate reporting for online platforms, implementing systems to support these processes may require a thorough understanding of the data being processed, as stipulated in the General Data Protection Regulation (GDPR), this ensures data accuracy and the protection of data subjects' rights, as an example, the DSA's focus on fairness

[58] Marta Beltrán. AI algorithms under scrutiny: GDPR, DSA, AI Act and CRA as pillars for algorithmic security and privacy in the European Union.p5
[59] Marta Beltrán. AI algorithms under scrutiny: GDPR, DSA, AI Act and CRA as pillars for algorithmic security and privacy in the European Union.p5
[60] Marta Beltrán. AI algorithms under scrutiny: GDPR, DSA, AI Act and CRA as pillars for algorithmic security and privacy in the European Union.p6

and transparency supports GDPR compliance by encouraging organizations to be more aware of their data processing activities and the rights of individuals.[61] On the contrary, complying with the GDPR's principles and requirements, providers are better equipped to meet DSA's expectations for protecting minors from content conduct contact, consumer or cross-cutting risks under Article 28, for example, OECD (2021).

There is a significant synergy where high-risk AI systems falling under both the AI Act and the scope of the CRA can demonstrate compliance with the AI Act's cybersecurity requirements by fulfilling the essential cybersecurity requirements of the CRA. When a high-risk AI system meets the CRA's requirements (Annex I), it is deemed compliant with the cybersecurity requirements of the AI Act. The EU declaration of conformity under the CRA can serve as evidence of this compliance. For products with digital elements classified as high-risk AI systems, the relevant conformity assessment procedure required by Article 43 of the AI Act applies. Notified bodies entitled to control the conformity of high-risk AI systems under the AI Act are also entitled to control their conformity with the CRA's requirements. This indicates a streamlined approach to conformity assessment for systems that fall under both regulations. [62]

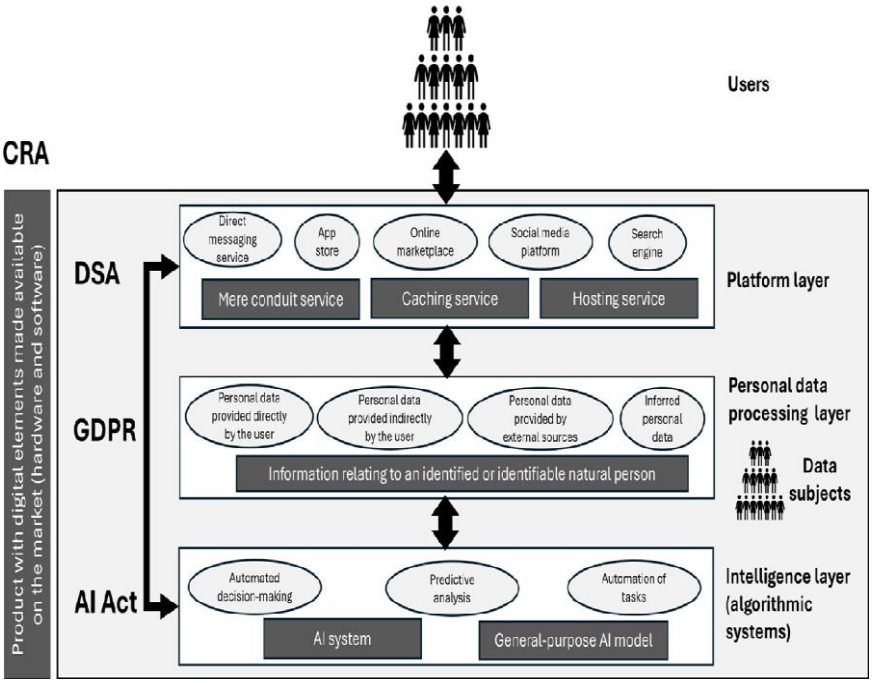

Figure 1: Four fundamental EU laws

[61] Marta Beltrán. AI algorithms under scrutiny: GDPR, DSA, AI Act and CRA as pillars for algorithmic security and privacy in the European Union.pp5,6

[62] Marta Beltrán. AI algorithms under scrutiny: GDPR, DSA, AI Act and CRA as pillars for algorithmic security and privacy in the European Union.p6,7

These four fundamental EU laws are connected to a transparent and risk-based regulatory approach aimed at protecting individual rights, promoting well-being, enhancing institutional security, and supporting national security in Europe. They focus on creating a flexible digital environment that can adapt to modernisation and digitisation. The main goal is to prevent harm or, at the very least, reduce it.[63] These are the four most essential risks according to the laws:

- **Organisational Risks:** The CRA directly addresses cybersecurity risks in products with digital elements, mandating essential cybersecurity requirements that organisations placing these products on the EU market must adhere to. This reduces the risk of vulnerabilities that could be exploited to harm organisations and their customers. The GDPR mandates strong data protection measures, including security of processing. Compliance with GDPR can reduce the risk of data breaches and associated organizational costs, although it is not the objective of this regulation. The DSA imposes obligations on online platforms, especially very large ones (VLOPs and VLOSEs), to manage systemic risks, including those that can affect the platform's integrity and operation, such as the spread of illegal content and disinformation. This can protect organisations that rely on these platforms. Finally, the AI Act establishes requirements for high-risk AI systems, including cybersecurity aspects, which may reduce the risk of these systems malfunctioning or being exploited, potentially leading to organisational harm.[64] In the process of achieving harmonisation, there may be differences in regulatory requirements, and this may cause some confusion for organisations that provide digital services, for example, the definition of a product with digital elements may be similar under the Telecommunications Act. Still, it may not be the same under the Artificial Intelligence Systems Act; this difference in the application of regulations between local authorities may cause inconsistencies in how regulatory risks are assessed and framed.[65]
- **Risks to Rights and Freedom**: Protecting individuals' rights, freedoms, and personal data is a pivotal and fundamental aspect of the GDPR we also find similar provisions in the Data Services Act (DSA), such as protecting freedom of expression and

[63] Marta Beltrán. AI algorithms under scrutiny: GDPR, DSA, AI Act and CRA as pillars for algorithmic security and privacy in the European Union.p7
[64] Marta Beltrán. AI algorithms under scrutiny: GDPR, DSA, AI Act and CRA as pillars for algorithmic security and privacy in the European Union.p,7
[65] Marta Beltrán. AI algorithms under scrutiny: GDPR, DSA, AI Act and CRA as pillars for algorithmic security and privacy in the European Union.p7

information, while simultaneously focusing on combating illegal and misleading content that harms individuals. In addition, it stipulates transparency in content moderation. The Artificial Intelligence Act strongly emphasises protecting fundamental rights from the potential harms of high-risk AI systems, and also stipulates transparency, human oversight, and non-discrimination. The CRA indirectly protects individuals by reducing the risk of their devices and data being compromised, which helps protect their privacy and fundamental rights.[66]

- **Risks to Society (Systemic Risks):** The Digital Services Act (DSA) explicitly addresses the systemic risks posed by high-risk AI platforms (VLOPs) and high-risk AI systems (VLOSEs) including illegal content, disinformation manipulation of public opinion and impacts on democracy and public health, the Act mandates risk assessments and mitigation measures, the AI Act aims to prevent related risks that may arise in areas such as critical infrastructure, education employment, and access to essential services which could significantly and broadly affect the functioning and balance of society, Furthermore the concept of systemic risk is explicitly mentioned in the AI Act in the section on general symptoms AI models (GPAI).[67]
- **Risks to National Security:** All four laws indirectly contribute to national security by enhancing public safety and the resilience of the digital environment. The Communications Regulatory Authority (CRA) places significant emphasis on the cybersecurity of products with digital components, which helps reduce vulnerabilities in critical infrastructure and other systems vital to national security, the integration of artificial intelligence systems into the digital activities of governments and institutions, there is a significant threat of serious cyberattacks jeopardizing intelligence and diplomatic negotiations, which can pose a significant risk to national security, furthermore, these attacks can harm institutional interests, such as the electoral process the section of the artificial intelligence law related to cybersecurity for national security applications (law enforcement, border control, terrorist threats, etc.) is of paramount importance. The GDPR's contribution in this regard lies in protecting sensitive personal

[66] Marta Beltrán. AI algorithms under scrutiny: GDPR, DSA, AI Act and CRA as pillars for algorithmic security and privacy in the European Union.p7
[67] Marta Beltrán. AI algorithms under scrutiny: GDPR, DSA, AI Act and CRA as pillars for algorithmic security and privacy in the European Union.p7

information that may be directly or indirectly linked to national security, while also providing certain exceptions for national security concerns.[68]

2.5. The AI Act's Enforcement System

The enforcement of the AI Act mainly relies on self-assessment by providers. There is no prior authorisation or licensing required. Instead, providers must declare that their high-risk AI systems meet the Act's essential requirements to access the EU market. Providers can use external experts to help with this declaration, such as through third-party certification or by following official standards. This declaration must be recorded in a database. The AI Act allows for limited post-market monitoring. Two types of authorities are involved in enforcement. Notifying authorities check whether third-party certification bodies follow the correct procedures. Market surveillance authorities (MSAs), designated by each EU Member State, monitor AI systems after they are placed on the market to ensure compliance with the AI Act. MSAs can request information from providers, impose penalties, order fixes, or even restrict market access if issues are not addressed. For general-purpose AI models, the AI Office in the European Commission is the responsible authority.[69]

2.5.1. Automating Legal Tasks

The process of searching for and retrieving relevant documents from a collection of text is called whole-text information retrieval. This approach goes beyond simply finding descriptive information; it involves a set of analysis and comparison processes applied to the entire content of the text to meet the user's specific requirements and needs. Given the vast number of legal precedents, decisions, and information available, these techniques are particularly useful for lawyers. Information search models, including those using generative artificial intelligence, can assist lawyers by performing advanced semantic analysis, integrating relevant information, and providing more detailed and comprehensive answers, leading to better results. Search models typically use two methods: the first involves improving the query based on prior knowledge of the document's content. In contrast, the second focuses on conversational search, similar to the functionality seen in applications like ChatGPT.[70]

[68]Marta Beltrán. AI algorithms under scrutiny: GDPR, DSA, AI Act and CRA as pillars for algorithmic security and privacy in the European Union.p,8

[69] Marco Almada, Nicolas Petit, 'The EU AI Act: Between the rock of product safety and the hard place of fundamental rights', (2025), 62, Common Market Law Review, Issue 1, pp. 85-120, https://kluwerlawonline.com/journalarticle/Common+Market+Law+Review/62.1/COLA2025004

[70] Liepiņa R, Lagioia F, Lippi M, Pałka P, Micklitz H-W, Sartor G. Automating Legal Tasks: LLMs, Legal Documents, and the AI Act. In: Zou M, Poncibò C, Ebers M, Calo R, eds. The Cambridge Handbook of Generative AI and the Law.pp:407-424.

LLM's technology is distinguished by its ability to significantly improve the quality and informational value of summaries, due to its ability to understand the semantic meaning of words, not just their literal sense, and to extract the relationship between them.[71] LLMs have become very popular among all circles, even among those not interested in technology because of what this technology offers, it refer to the feature of summarizing legal texts which at first glance seems like salvation for lawyers who used to spend hours and hours on this process, which is considered the cornerstone for the lawyer, this feature has been applied in many aspects, such as summarizing code using GPT zero capabilities, in addition to summarizing books in innovative and new ways for example, dividing the entire book into parts and then using a hierarchical strategy to divide a large group of books, LLMs have also been used to summarize videos, lectures and long meetings using programs like Chatgpt.[72]

2.6. Ethics and International Soft-Law Frameworks for Reliable Generative Artificial Intelligence in Dispute Resolution

Legislation such as the EU Artificial Intelligence Act 2024 provides a clear and strong legal basis. Still, non-binding laws such as the OECD Principles and UNESCO Recommendations also have an essential place in the reliable and safe use of artificial intelligence, as they too have the same orientations, focusing on the values of justice and democracy. OECD principles were the first among international governmental organisations to come up with the work and adopt an international soft law for AI.

2.6.1. Inclusive Growth, Sustainable Development, and Well-Being

This principle emphasises that artificial intelligence (AI) should be developed and used in ways that bring prosperity and positive outcomes for both people and the planet. Reliable AI can play a vital role in promoting inclusive growth, sustainable development, and achieving global goals, such as those in education, health, the economy, justice, agriculture, and other sectors. However, the principle also acknowledges that AI systems can reinforce existing biases and may have unequal impacts on marginalised groups, including women, the elderly, and less educated populations. This issue is particularly noticeable in middle- and low-income countries. The core objective of this principle is to ensure that AI is used reliably to reach all segments of society and reduce biases. It also calls on AI stakeholders to promote the

[71] (Liepiņa R, Lagioia F, Lippi M, Pałka P, Micklitz H-W, Sartor G. Automating Legal Tasks: LLMs, Legal Documents, and the AI Act. In: Zou M, Poncibò C, Ebers M, Calo R, eds. The Cambridge Handbook of Generative AI and the Law.pp:407-424

[72] Aniket Deroy, Kripabandhu Ghosh and Saptarshi Ghosh. Applicability of Large Language Models and Generative Models for Legal Case Judgement Summarization. arXiv:2407.12848v2 [cs.CL] 20 Jul 2024 https://arxiv.org/abs/2407.12848

continuous development of AI technologies to deliver optimal results consistently. This can only be achieved through collaboration and coordination among all involved parties.[73]

2.6.2. Human Rights and Democratic Values (Fairness and Privacy)

Those involved in the field of artificial intelligence must develop it in line with values that place humanity at the heart of their concerns, such as focusing on fundamental freedoms, equality fairness, the rule of law, social justice, and the protection of personal data, in addition to consumer rights and commercial fairness, some researchers and those interested in this field have noted that artificial intelligence, and in particular some of its applications, infringe upon human rights as defined in the Universal Declaration of Human Rights and human-centered values, either intentionally or unintentionally, therefore, it is essential to design these systems with safeguards that are compatible with values, i.e., enabling human intervention and supervision in line with the context, this compatibility can help ensure that the behaviors of artificial intelligence systems promote human rights, furthermore, adherence to democratic values greatly helps to enhance public trust in artificial intelligence, because this cannot be hidden, people are still apprehensive about some of these systems because the limits of artificial intelligence and what can be achieved cannot be predicted.[74]

2.6.3. Transparency and Explainability

In this context, transparency means clearly disclosing when artificial intelligence (AI) is used for predictions, recommendations, decision-making, or direct interaction with an AI-powered agent. In some cases, revealing the use of AI is essential to the interactive process. Transparency also involves enabling individuals to understand how an AI system is developed, providing them with a general understanding of its structure and operation. This helps people make more informed and rational decisions. Additionally, transparency means providing useful information about how the system works, but it should not extend to sharing personal data with others without consent. Explanatory transparency means that individuals affected by AI outcomes have the right to understand how those results were reached. This requires offering clear, simplified information about the AI system's decisions, especially regarding the factors and logic behind them. The explanation should be simple and aligned with the main factors in the decision-making process, such as the data used and the logic or algorithm that led to the outcome. Developers must ensure that this explanation is presented in an understandable way,

[73] https://oecd.ai/en/dashboards/ai-principles/P5
[74] https://oecd.ai/en/dashboards/ai-principles/P6

allowing individuals to have a good grasp of the result and the ability to question it. This should be done while ensuring the protection of personal data.[75]

Transparency obligations have been shown to play a central role in strengthening institutional trust, particularly when AI systems are used to support decision-making in dispute resolution. Clear information about how data is processed, what factors influence system outputs, and how individuals may challenge or review those outputs enables users to assess the fairness of the process. This openness reduces perceptions of arbitrariness and facilitates meaningful accountability. As a result, transparency functions not only as an ethical expectation but as a practical requirement for ensuring that AI-supported dispute resolution mechanisms are perceived as credible, reliable, and procedurally just.[76]

2.6.4. Robustness, Security, and Safety

The safety and security challenges in artificial intelligence (AI) systems are critical for building trust in these technologies. In this context, robustness refers to an AI system's ability to perform reliably under adverse conditions, including risks related to national security and compliance with relevant laws and regulations, such as consumer protection. These risks can sometimes be unreasonable, making it essential for governments, in collaboration with appropriate authorities, to establish standards for AI systems. Additionally, AI stakeholders can adopt a risk management approach to identify and address potential misuse, including the use of AI systems for unintended purposes. By considering the risks of misuse, the importance of safety, and the need for robust and secure systems, it becomes clear how robustness, security, and safety are interconnected. Addressing these issues together ensures that AI systems are not only practical but also trustworthy and resilient to potential threats or malfunctions.[77] There are two methods for maintaining robust and secure AI systems:

The ability to track, analyze, and investigate the results of AI systems is crucial for enhancing accountability and improving the overall reliability of these systems. Tracking AI outcomes allows for a more accurate understanding of their performance, helps prevent future errors, and ensures that AI systems are functioning as intended. This process also contributes to continuous improvement by identifying any issues that need to be addressed. In addition to tracking, the application of a risk management approach is essential to mitigate potential harms. This approach focuses on identifying and addressing the risks that AI systems pose to human

[75] https://oecd.ai/en/dashboards/ai-principles/P7
[76] Allen A. Shoikhetbrod, September 4, 2024, What to Know About the Stages of Litigation https://www.tullylegal.com/resources/articles/what-to-know-about-the-stages-of-litigation/
[77] https://oecd.ai/en/dashboards/ai-principles/P8

rights, privacy, and equality. The recommendation emphasizes the importance of robustness, providing guidelines to protect against these risks by promoting key principles such as transparency, accountability, safety, and security. These measures ensure that AI systems operate in a responsible manner, safeguarding both individuals and society from potential harm.[78] Accountability in this context means that organisations and actors in artificial intelligence systems will ensure correct and reliable performance throughout their use of these systems, whether in the design, development, operation, and deployment phases, in accordance with applicable regulations and legal frameworks, and ensuring that this is clear and explicit in the decision-making process.[79]

2.7. UNESCO Recommendation on the Ethics of AI (2021)

The United Nations also issued recommendations regarding artificial intelligence in 2021, which were adopted by all 193 member states of the United Nations. These recommendations stipulate guidelines for a systematic, normative approach based on a comprehensive, integrated, and multicultural framework of evolving values, principles, and interconnected procedures that would govern the use of artificial intelligence in a trustworthy and secure manner.[80] This approach aims to establish a global framework of values, principles, and procedures to assist states in developing laws, regulations, and other artificial intelligence tools in accordance with international law, to achieve these objectives, this United Nations recommendation dedicates several guiding sections to political measures and legal standards, including respect for human rights; the protection and promotion of fundamental freedoms, the preservation and flourishing of the environment and ecosystems, the promotion of diversity and inclusion, and the establishment of peaceful and interconnected societies.[81] These recommendations are distinguished by a guiding framework for assessing the ethical impact of using artificial intelligence, in cases where there is a conflict between these principles, such as transparency and interpretability versus the right to data protection or privacy, the principle of proportionality intervenes and plays a crucial role in reconciling these contradictions, regarding the principle of not harm, this recommendation stipulates that artificial intelligence should not be used if the impact is irreversible and irreparable or to be more precise, in situations where

[78] https://oecd.ai/en/dashboards/ai-principles/P8,.
[79] https://oecd.ai/en/dashboards/ai-principles/P9
[80] Aura Esther Vilalta Nicuesa. Marian Gili Saldana. AI-driven alternative and online dispute resolution in the European Union: An analysis of the legal framework and a proposed categorization. Computer Law & Security Review 57 (2025) 106145.p3. https://doi.org/10.1016/j.clsr.2025.106145
[81] Aura Esther Vilalta Nicuesa. Marian Gili Saldana. AI-driven alternative and online dispute resolution in the European Union: An analysis of the legal framework and a proposed categorization.p3

human intervention is necessary.[82] This recommendation is an extension of the OECD recommendation that was revised in 2023, which also serves as a cornerstone of the EU AI Act.

2.7.1. Case Study: AI Integration and Governance in Dispute Resolution in China

The European Union and China are considered among the most advanced and sophisticated models when it comes to regulating artificial intelligence. China serves as a role model in Southeast Asia, and world is aware of Southeast Asia's influence on global technology. The European Union, on the other hand, is a distinctive example due to its focus on protecting fundamental rights, transparency, and human oversight. The Chinese model, however, relies on state control, social stability, and technological sovereignty. In 2017, the Chinese State Council issued a plan for the development of a new generation of artificial intelligence, which serves as the cornerstone for subsequent laws and regulations in China. On December 31, 2021, the Cyberspace Administration of China (CAC), along with three other Chinese agencies, released regulations on the management of algorithmic recommendations for internet information services. On November 25, 2022, the Cyberspace Administration of China, together with two other government agencies, issued regulations on the management of deep synthesis technologies for internet information services.[83] The Chinese approach is based on encouraging innovation and development in the field of artificial intelligence while maintaining state control over these technologies, due to China's vast size and diversity, the government allows each region to develop its own strategy in line with the specific characteristics of that region, provided that this strategy does not contradict the national plan for the development of the next generation of artificial intelligence, which contains a set of recommendations encouraging local authorities to implement new technologies to achieve the public good.[84] China's emerging approach to AI regulation increasingly reflects elements of "sandbox governance," in which designated experimental zones are used to trial new technologies under closely monitored conditions before broader implementation. These controlled environments allow developers and regulators to observe real-world impacts—such as risks to privacy, data integrity, and content accuracy—while adjusting regulatory

[82] Aura Esther Vilalta Nicuesa. Marian Gili Saldana. AI-driven alternative and online dispute resolution in the European Union: An analysis of the legal framework and a proposed categorization. p4

[83] Yan Wang. Do not go gentle into that good night: The European Union's and China's different approaches to the extraterritorial application of artificial intelligence laws and regulations. *Computer Law & Security Review: The International Journal of Technology Law and Practice 53 (2024) 105965.p9.* *https://doi.org/10.1016/j.clsr.2024.105965*

[84] Irina A. Filipova , Legal Regulation of Artificial Intelligence: Experience of China, journal of digital Technologies and Law, 2024, 2(1). eIssN 2949-2483 p.56. https://doi.org/10.21202/jdtl.2024.4 .

requirements in response to practical findings. By enabling iterative testing and rapid policy feedback, this model seeks to balance innovation with oversight. Although distinct from rights-based regulatory frameworks, sandbox governance offers a flexible mechanism for shaping AI deployment in high-impact sectors, including dispute resolution.[85] China introduced legal standards that did not previously exist in the legislation of other countries, even before the end of 2023, which is discussed in the following paragraph**:**

Following the introduction of the Measures, the National Information Security Standardisation Technical Committee released the Basic Security Requirements for Generative Artificial Intelligence Service (TC1-TC2) on 19 March 2019. This set of technical standards aims to provide basic security requirements for generative AI services, including corpus, model, security measures, and security assessments. It applies to service providers in relation to their obligations to conduct security assessments and improve security levels under the Measures. The standard also provides a point of reference for relevant regulatory authorities to assess the security level of generative AI services. In China, national technical standards function more as tools for implementing higher-level laws. In this way, they are better understood as a type of regulatory instrument. In an important standards framework on AI safety issued by the National Information Security Standardisation Technical Committee 260 on Cybersecurity of the Standardisation- Administration of China, risks of information and content safety were identified as follows: AI-generated content can lead to the spread of false information, discrimination and bias, privacy leakage, and infringement issues, threatening the safety of citizens' lives and property, national security, ideological security, and causing ethical risks. If users' inputs contain harmful content, the model may output illegal or damaging information without robust security mechanisms.[86]

To counter the significant impact of generative artificial intelligence, policymakers in China are striving to maintain a balance between two key objectives: development and security, in Chinese legislation, development refers to the Chinese government's desire to promote the growth of the generative AI industry and solidify its position as a global AI powerhouse, while simultaneously maintaining security in all laws and regulations related to these technologies, Policymakers in China consistently prioritize the security aspect in the legislative process, Article 1 of the measures outlines the following regulatory objectives. "Article 1 sets out the

[85] Allen A. Shoikhetbrod, September 4, 2024, What to Know About the Stages of Litigation https://www.tullylegal.com/resources/articles/what-to-know-about-the-stages-of-litigation/>.
[86] Lu Zhang and Mimi Zou. The Cambridge Handbook of Generative AI and the Law.p137

following regulatory objectives fostering responsible growth of generative AI while ensuring national security and public interests, and protection of the rights of citizens, legal entities, and other organisations. Additionally, Article 3 reinforces the equal importance of 'development' and 'security' as well as emphasising the principle of balancing innovation promotion with lawful governance.[87]

The question that remains firmly is the extent and manner of China's evolving regulatory framework for developing generative artificial intelligence and integrating it into the Chinese legal framework, regulations always, most of the time, derive their authority from higher-level laws Article 1 of the measures explicitly and directly refers to the Law on Promoting Scientific and Technological Progress as its legal basis, to achieve China's technological and scientific self-sufficiency through strengthening the measures in this legislation, there is a focus on aligning the development of generative artificial intelligence with the broader goals aimed at promoting China's self-reliance in the fields of science and technology, these measures are closely related to China's wider strategy to achieve technological leadership as well as independence.[88]

Decision-makers in China always try to balance development and security in the measures related to it and the services built on it, because from their point of view, some applications of artificial intelligence, especially generative AI, require more control and strictness. In contrast, other technologies do not require the same strictness, and this is due to the fields that frame them. In practice, this distinction serves as a criterion where public interests, safety, and security are at stake; the measures differentiate between basic generative AI technologies on the one hand and the services generated from this technology on the other hand. Referring to the second chapter of the Chinese measures entitled "Technology Development and Governance," this chapter focuses on consolidating innovation and the application of generative AI in various industries and fields, the second chapter of these measures contains terms such as encouragement, support and promotion especially in "trial and error" in research and technological development, this indicates the direction of decision-makers that these measures should not interfere too much in the development of basic generative AI technologies.[89]

As mentioned earlier, the Chinese approach is characterised by flexibility, and this flexibility is explained by the rapid pace of artificial intelligence development, resulting in the

[87] Lu Zhang and Mimi Zou. the Cambridge handbook of Generative AI and law. p138
[88]Lu Zhang and Mimi Zou. the Cambridge handbook of Generative AI and law. p138
[89] Lu Zhang and Mimi Zou. the Cambridge handbook of Generative AI and law. p139

emergence of new data in the field. Also without forgetting the practical nature of the Chinese approach, for example, facial recognition technologies are widely used in public places in China, which are also considered part of artificial intelligence technologies, this prompted the government to adopt new regulations for the use of this technology, and among the most essential elements of these regulations is the reduction of the possibility for non-governmental organizations to use this technology and obligating them to use alternative methods.[90]

2.7.2. Case Study: AI and Legal System Integration in the European Union

The European Union (EU) provides another advanced model of AI governance, which contrasts with China's more centralized approach. The EU prioritizes fundamental rights, transparency, and human oversight in AI development. Its regulatory approach aims to balance innovation with individual rights protection. The EU AI Act sets clear requirements for AI deployment, focusing on high-risk applications that impact public health, safety, and legal rights, including dispute resolution systems. In 2024, the EU AI Act introduced specific guidelines for high-risk AI systems, requiring providers to demonstrate compliance with transparency, safety, and accountability measures before market access. This regulatory framework also stresses the importance of human oversight in high-stakes decision-making processes, particularly in legal contexts such as arbitration and mediation. The Act includes provisions for assessing the ethical impact of AI, ensuring that these systems operate in a manner that aligns with EU values, such as privacy, non-discrimination, and transparency. Moreover, the EU AI Act integrates a risk-based approach, ensuring that AI applications in dispute resolution are regularly assessed for compliance with these ethical principles. This dynamic regulatory framework allows for flexibility in how AI technologies are deployed while ensuring that they are not misused and that citizens' rights are safeguarded.

The Framework Convention on Artificial Intelligence and Human Rights, Democracy, and the Rule of Law, the Council of Europe may be viewed as the important step towards the regulations of ethically acceptable and legally justified use of artificial intelligence (AI) in Europe. This was the invention of the Council of Europe that is among the largest international organizations that take an interest in human rights, democracy and the rule of law in Europe. The structure is also expected to react to the developing concerns revolving around AI and ensure that its application is pertinent to the fundamental values of human rights and democratic values. Since the inception of AI, many sectors have been revolutionized within a short span

[90] Irina A. Filipova , Legal Regulation of Artificial Intelligence: Experience of China. p57

of time, and some of the sectors affected include the healthcare sector and financial and administrative management of the government. Even though AI has gigantic potential in the area of growth and innovation, it has some severe threats too, particularly regarding the most fundamental rights, privacy, accountability, and transparency. These threats may be of particular concern when the AI platforms are used in areas of high stakes, including the criminal justice, surveillance, and decision making functions that may influence the lives of individuals. The Council of Europe that is cognizant of these concerns took a proactive move towards creating a structure that would be all inclusive in holding AI responsible when it comes to its creation and exploitation. The framework reminds the importance of human rights, democratic principles, and the rule of law as the guidelines that should be applied to regulate AI, in the effort to find a balance between the technological innovation and the securing of the fundamental liberties.

Key Principles of the Framework

1. Respect for Human Rights: The respect to human rights is one of the pillars of the framework. Another strategy to be applied towards designing and implementing AI systems is maintaining and monitoring the rights that are provided in the European Convention on Human Rights (ECHR) and other international human rights laws. These rights are, the right to privacy, the right to express, non-discrimination and right to trial contest. Specifically, the framework addresses the concerns about how AI is expected to infringe those rights, such as doing so through unfair surveillance or discrimination in choice-making.
2. Democracy and Participation: The system declares that AI should enhance, but not harm the democratic action. The accountability of the AI systems is vital to the premise that the citizens are supposed to have the potential to understand and modify the technology that influences their lives. The model encourages democracy within the AI governance through facilitating the people and communities to be part of the process of the discussion on the establishment and usage of AI technologies.
3. Accountability and Legal Liability: Accountability and Legal Liability has been cited as one of the major principles of the framework because it possesses a discernible accountability and legal liability mechanisms. As more autonomy gains, AI systems will likely emerge, it is necessary to designate accountability in the occurrence that AI systems arrive at deleterious decisions or have detrimental effects. The structure recommends the creation of the legal systems that will expand the creators, workers, and consumers of AI accountable to the ethical usage and effects of such technologies.

4. Non-Discrimination and Equality: AI systems must be designed and implemented in such a way that will bring the concept of equality and dishearten the components of discrimination. This entails a reduction of biased AI algorithms that have a greater chance of biased treatment of marginalized individuals who could consist of minorities, women and vulnerable individuals. The framework supports the creation of AI systems to be executed in a manner that is fair and inclusive in that a person will not be treated with contempt and inflame his/her dignity or respect.
5. Transparency and Explainability: Transparency and explainability are also appreciated in the framework as a means of building trust in AI systems. People ought to be given an opportunity to understand how the AI systems arrive at their decisions particularly in the fields of justice, health and work. The framework suggests that AI systems are supposed to be developed in such a way that one can easily find out how the decision-making process is conducted and study the suggested decision or contact the authorities to indicate their dissatisfaction with the decisions made.
6. Data Protection and Privacy: Data used by AI systems is extremely large thus, privacy and security of information is a primary issue in the context. The laws of a specific state (such as the General Data Protection Regulation (GDPR) in Europe) that regulate data protection demand that the data, as collected, processed, and stored by the AI systems maintain the privacy rights of the people, and should not harm the privacy rights of individuals.
7. Ethical Development of AI: The structure promotes ethical growth of AI technologies- It supports the collaboration of governments, the business sector, the civil society, and the academic world. It requires the foundation of standards and guidelines that may produce ethical conduct in the process of applying AI in research and development and its execution.

Impact on AI Governance in Europe

The AI Framework Convention at the Council of Europe is to be a living document that is revised in an evolving AI environment. It is concentrating on an assortment of principles and guidelines, with the purpose of possessing a premise on legislation and regulations of AI at both national and international levels. Countries, which are going to utilize the framework, will have the AI policies adjusted to the standards offered by the Council of Europe in order that artificial intelligence technologies could help to preserve human dignity, equality and fairness. The framework is also presented as an example of the inter-national cooperation regarding the AI governance. It fosters the collaboration of the nations in such a manner that artificial

intelligence technologies are implemented to protect the implementation of the basic rights and democratic principles. The framework aims at possessing a combined set of rules and principles of AI that cuts across borders in the way that AI may possess global standards of AI regulation.

Challenges and Future Directions

Despite the framework developing a strong framework of AI governance, the implementation has some problems. One of the biggest challenges is the rate of change of the products of the technology as it may overwhelmed the rapid adjustment to the law system. Additionally, the utmost lightness and equity of AI technologies within various cultural and legal frameworks is another issue of worry, which is nearly unrealistic, particularly in the case when both multi-level data streams and different laws are considered in the laws of the country.

As AI grows, the Council of Europe is also going to need to streamline and update the framework to match the additional advances. It would encompass further levelling relating to the autonomy, trust, and social responsibility and ensure that the AI systems can contribute to sustainable development goals (SDGs) and the climate action. The Council of Europe Framework Convention on Artificial Intelligence and Human rights, Democracy, and the Rule of Law is one of the major precedents in the regulation of responsible AI. The framework provides an ethical and detailed mechanism of controlling the AI technologies based on its attention to the human rights, democracy and the rule of law. It aims at assisting countries in adopting AI systems, which are open, responsible, and compatible with the conventional principles of democracy. Since AI continues to affect every sector within the society, the framework is a crucial tool in ensuring the development of AI is ethical, fair and inclusive to all.

2.7.3. Case Study: AI in Legal Systems in the United States

The United States has also made significant strides in integrating AI into legal systems, particularly in areas like dispute resolution. Unlike the EU's focus on fundamental rights and China's emphasis on security, the US model has largely been market-driven. In California, AI-powered platforms have been developed for online dispute resolution (ODR), especially in small claims court and family law. These systems assist in providing quick and cost-effective solutions to disputes, using AI to analyze case details and suggest potential resolutions. While the US has no comprehensive national AI regulation, states like California have adopted AI transparency laws requiring the disclosure of AI usage in decision-making processes, particularly when these decisions affect individuals' legal rights. However, concerns regarding bias, data privacy, and the potential for AI to reinforce existing inequalities remain prominent.

As such, ongoing debates in the US focus on how to balance innovation with accountability, ensuring that AI systems used in legal contexts are fair, transparent, and reliable.

These case studies highlight the varying approaches to AI governance across the globe, showing the distinct ways countries balance development, security, and ethical considerations in their regulation of artificial intelligence, particularly in the context of dispute resolution. The regulatory approach to artificial intelligence in the European Union and China is two different philosophies. The European Union always bases its philosophy on democratic rights and values, while China follows a governance model that is based on the state and national security, and one of its characteristics is rapid adaptation. The philosophy followed directly affects how the legislator deals with new challenges and developments. This section deals with the fundamental differences between these two philosophies in China and Europe. There are two approaches to legislative regulation and response to artificial intelligence: the "horizontal" and the "vertical" approaches, the horizontal approach is characterized by its comprehensiveness, encompassing all industries and services in the field of artificial intelligence and comprehensively addressing its various impacts, this approach aims to address the perceived risks associated with AI technology, but it still raises doubts about the effectiveness of such broad classifications, the vertical approach, on the other hand, refers to regulating different forms and applications of artificial intelligence within a specific market sector the problem of regulatory gaps between different regulatory bodies is evident in this approach because it does not adopt a holistic approach, analyzing the Chinese and European approaches, we find that neither relies entirely on a single specific method for regulating artificial intelligence, however we can say that the European Union's AI Act leans towards the horizontal approach, while the Chinese approach tends towards the vertical approach.[91] In the European Union, the political discussion surrounding the regulation of artificial intelligence stems from the desire of European political actors to control the harmful effects of AI. In China, however, the primary motivation was to unlock the full potential of artificial intelligence. In other words, Europe wanted to mitigate harm and protect fundamental rights. At the same time, China was primarily focused on innovation however, we are now beginning to see a shift in the Chinese approach, with an increased focus on protection against potential harms, regarding human rights, everyone knows how much the European Union cares about this aspect, unlike China, which to some extent does not prioritize human rights however this approach may partially hinder

[91] Yan Wang. Do not go gentle into that good night: The Eur,opean Union’s and China’s different approaches to the extraterritorial application of artificial intelligence laws and regulations. p11

innovation because it is strict unlike the Chinese approach which encourages innovation for the public good.[92]

One of the characteristics of China's vertical approach to regulating artificial intelligence is the rapid adoption of new regulatory tools. For example, on April 11, 2023, the Cyberspace Administration of China issued a draft of a set of proposed measures for public comment, setting a deadline for submissions on May 10 of the same year. The entire process took only three months to reach final approval. In a fast-paced world, especially in the field of artificial intelligence, speed is essential for implementing reforms and adjusting, this is something we don't see in many other regulatory frameworks, such as that of the European Union, which certainly has its own reasons for not acting as quickly, but it remains obligated to demonstrate greater speed and flexibility to address all the challenges and developments occurring in the world of technology.[93]

[92]Irina A. Filipova, Legal Regulation of Artificial Intelligence: Experience of China p.61
[93] Lu Zhang and MimiZou.The Cambridge Handbook of Generative AI and the Law.p136

Part III
Challenges and Solutions for Generative Artificial Intelligence Integration in Dispute Resolution

3.1. Barriers to Reliable and Widespread Adoption

While generative artificial intelligence has begun to enter the judicial process and is gradually gaining acceptance, it still has a long way to go to achieve widespread adoption. It still suffers from many structural, legal, and technical problems that hinder its progress. It is well known that justice systems operate on a clear and well-known basis, namely transparency, accountability, and adherence to applicable laws and procedures. At the same time, these foundations are difficult for generative artificial intelligence to provide, considering the present data; however, it cannot be hidden that what has been accomplished is not easy. Instead, it is necessary to identify and understand the obstacles to easily identify the flaw and work on framing it. Generative artificial intelligence promises a bright future for the legal system, but its application in courts and legal proceedings is not without risks, particularly concerning the ethics of its use. These risks have been identified through several studies on the governance of generative AI, especially regarding transparency, fairness, bias, accountability, and data protection. Furthermore, some problems have recently emerged, such as the provision of misleading and inaccurate information, known as AI hallucinations. This can influence the legal system by presenting fictitious facts and events, potentially impacting judicial decision-making; therefore, extreme caution is necessary, requiring multiple verifications before relying on AI-generated information. To assume that introducing generative AI into the courts and adopting it fully is now a given is wishful thinking; many challenges remain, such as algorithmic bias, hallucinations, and numerous other obstacles that must be overcome.[94]

3.1.1. Technical and Infrastructural Barriers

Data and models can be subject to a wide range of phenomena that can cause bias; therefore, fairness, representativeness and inclusivity in data and models are essential parts of the artificial intelligence lifecycle (the stages of designing, developing, and deploying AI-based systems). Bias is not limited to the algorithmic aspect only, this bias can also result from human activity, in addition to data biases and web sampling biases, which must be considered,

[94] Socol de la Osa DU, Remolina N. Artificial intelligence at the bench: Legal and ethical challenges of informing—or misinforming—judicial decision-making through generative AI. *Data & Policy*. 2024;6:e59. doi:10.1017/dap.2024.53 https://doi.org/10.1017/dap.2024.53

especially when using data to train generative models, other types of bias include algorithmic bias, interaction bias, and finally self-selection bias, which can be considered a second-order bias to the algorithm, to address and mitigate bias, there are several approaches, ranging from general requirements and available tools to specific classifications of bias at different stages of the AI lifecycle, various concepts of fairness, including causal fairness, which is based on causal relationships and requires the creation of causal graphs, counterfactual fairness, causality can help us correct errors in algorithmic bias mitigation techniques or in interpreting models, for example causal mediation analysis can help us detect unequal impact by estimating fairness related to different explanatory variables can be defined.[95]

Gender bias is an important issue that is inherent in these systems, especially in generative artificial intelligence, the subject of this research. Biases embedded in training data often mirror long-standing social and institutional inequalities, meaning that AI systems can unintentionally reproduce and amplify discriminatory patterns. When generative models are trained on datasets that reflect historical disparities—whether relating to gender, ethnicity, or socioeconomic status—they may generate outputs that privilege certain groups or perspectives. In dispute resolution settings, such biases can influence assessments of credibility, responsibility, and entitlement, thereby affecting the perceived fairness of outcomes. Addressing these risks requires deliberate data curation, continuous auditing, and context-sensitive evaluation methods to prevent the reinforcement of inequitable decision-making patterns.[96] Many actors and stakeholders in this field have observed that gender bias can hinder the effective use of artificial intelligence, For example, it has been noted that job advertisement algorithms on the Facebook platform suggest stereotypical female jobs for women and stereotypical male jobs for men, thus contributing to inequalities in the job market, here's another example of bias: the American COMPAS algorithm, a platform used by judges to predict recidivism, was biased against Black American men, suggesting longer prison sentences for them compared to white men, there is ample evidence of gender bias and numerous studies on this topic, and this significantly impacts the acceptance of these new

[95] Natalia Díaz-Rodríguezа, Javier Del Serb, Mark Coeckelberghd, Marcos López de Pradoe,f,g,EnriqueHerrera-Viedmaa,Francisco Herrera, Connecting the dots in trustworthy Artificial Intelligence: From AI principles, ethics, and key requirements to responsible AI systems and regulation, Information Fusion 99 (2023) 101896,pp 11,12, www.elsevier.com/locate/inffus

[96] Allen A. Shoikhetbrod, September 4, 2024, What to Know About the Stages of Litigation https://www.tullylegal.com/resources/articles/what-to-know-about-the-stages-of-litigation/

technologies by society, therefore developers and stakeholders must work to reduce these biases to make these systems more reliable and acceptable to the public.[97]

To make artificial intelligence (AI) systems trustworthy, it is essential to focus on transparency for users. This includes ensuring users can verify the information generated by AI systems, check its accuracy, and understand how it is produced. As AI technologies are increasingly adopted, the risk of misuse and the potential negative consequences of such misuse also grow, impacting users in various ways. One significant example is deepfake technology, which has gained popularity in entertainment content but is less known for its applications in other fields such as cinema, advertising, and more. This technology poses a serious threat to AI transparency, as it has been used in numerous scams and fraudulent activities, including voice cloning and fake videos. The complexity of algorithms is often cited as a significant reason for the lack of transparency in AI systems. While these complex algorithms are essential for AI to function effectively and serve as an alternative to human intervention in decision-making, they can also obscure how decisions are made. For AI to be trustworthy, it must be able to produce fair and justified decisions that align closely with human judgment. In this context, legal and ethical issues related to AI cannot be addressed in isolation. The participation of authorities who issue the laws and regulations governing AI is crucial to ensure that these systems operate in a transparent, ethical, and accountable manner. Without regulatory oversight, the risks of misuse and unethical practices, like deepfakes, will continue to grow, undermining trust in AI technologies and their applications.[98]

For accountability to be effectively applied, AI systems must be transparent and auditable, allowing users to view and understand the results of these systems. This transparency is crucial for ensuring that the decision-making process is open to scrutiny and that users can verify the outcomes generated by the AI. Furthermore, these systems must be subject to human oversight at three key levels: the ability to track the documents involved, the process used to verify specific outcomes, and ensuring a balanced approach between human and AI decision-making strategies. This oversight ensures that decisions made by AI are checked against human judgment, promoting fairness and accountability in the process. In the context of competition, AI systems must take into account the necessary expertise while also adhering to the legal,

[97] . Jose Cuesta. Gender bias in Artificial Intelligence. JOURNAL OF ECONOMIC POLICY REFORM.p5. https://doi.org/10.1080/17487870.2025.2579039

[98] Svetlana S. Vashurina, Trust in Artificial Intelligence: Regulatory Challenges and Prospects Legal Issues intheDigitalAge.2025.Vol.6,no.2.pp76,77,78

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linguistic, and cultural constraints specific to the dispute. This ensures that no party is given an unfair advantage, particularly in cases involving diverse legal systems or multi-lingual and multi-cultural contexts. AI should support equitable decision-making without bias, respecting the rights and perspectives of all parties involved. Human oversight is not only essential but mandatory in the design of AI systems to ensure impartiality and guarantee justice. The principle of legality dictates that AI systems must comply with applicable laws and regulations, while also ensuring access to information. Additionally, it is important to disclose the roles and scope of AI's influence in generating final decisions. This transparency will help maintain the trust of all stakeholders, ensuring that AI tools are used responsibly and ethically within the legal framework.[99]

3.1.2. Social Barriers

At the societal level, artificial intelligence (AI) faces significant challenges in gaining widespread acceptance. While AI systems have the potential to improve social welfare by performing routine tasks safely and efficiently, their successful implementation hinges on adhering to proper regulations. These systems can help accelerate processes, reduce bureaucracy, and minimize reliance on paper, all of which would benefit the environment. The environmental impact of AI adoption is an important consideration, as these technologies could contribute to sustainability by reducing waste and resource consumption. However, implementing and utilizing AI in practice requires vast amounts of data to function effectively. The availability and handling of this data are critical, as the use of AI in areas affecting human lives demands extreme caution. Its direct impact on individuals and societal trust in these systems cannot be overstated. We are currently in a critical phase—the early stage of acceptance and adoption. While society is gradually becoming more open to AI, the key to wider acceptance lies in how these systems are managed and deployed. It is imperative that stakeholders in the AI field adopt fair and transparent policies, prioritize privacy protection, and ensure human oversight in AI decision-making processes. If trust is lost now, society's acceptance of AI could regress significantly, potentially undoing years of effort spent educating and convincing the public about the benefits of these technologies. In this critical phase, maintaining public trust is essential for the successful integration of AI into society.[100]

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[99] Aura Esther Vilalta Nicuesa, Marian Gili Saldana, AI-driven alternative and online dispute resolution in the European Union, p4

[100]Natalia Díaz-Rodrígueza, Javier Del Serb, Mark Coeckelberghd, Marcos López de Pradoe,f,g,EnriqueHerrera-Viedmaa, Francisco Herrera, Connecting the dots in trustworthy Artificial Intelligence: From AI principles, ethics, and key requirements to responsible AI systems and regulation. pp12,13).

3.1.3. Data Protection and Privacy

Artificial intelligence systems that rely on digital records extracted from human behavior can identify personal preferences such as age, gender, religion, political ideology and other information that may seem innocuous but could play a significant role in the future because these systems depend on and are trained using collected data to extract this information, they must ensure privacy and prevent the disclosure or misuse of this data, failure to do so would erode public trust in these systems, which are currently in a critical phase of acceptance furthermore, these systems must empower citizens to control their data as they see fit and guarantee that this information will not be used against them or to cause them harm, this is one of the challenges facing artificial intelligence in general, and generative AI in particular, not to mention the possibility of developing stereotypes that may sometimes be inaccurate and produce counterproductive results, this constitutes a significant obstacle to the acceptance of these systems and is a source of concern for developers and stakeholders in this field.[101]

As for the process of integrating generative artificial intelligence into judicial decision-making, many problems arise concerning privacy, data, and how to protect this data. This is due to the need to collect, store, and analyse sensitive personal data to provide an effective and accurate solution to that judicial dispute. This process cannot be done without obtaining that sensitive information, so strong guarantees must be provided and strict rules established.[102]

3.1.4. Human Oversight

Human oversight of artificial intelligence (AI) and generative AI systems faces significant challenges, primarily due to the scale, complexity, and autonomy of these modern technologies. While AI systems, including deep learning and generative AI, hold the potential to provide substantial benefits to humanity, they also present a perplexing and controversial enigma. These systems, particularly deep learning models often referred to as "black boxes," make decisions that are difficult to understand and explain. This lack of transparency poses a considerable barrier to effective oversight, especially in high-risk applications where understanding the underlying logic behind AI decisions is essential—decisions that can have direct and profound consequences on human lives.

The increasing autonomy of AI systems further complicates the challenge of oversight. As these systems become more independent, relying less on human intervention, the human

[101] Natalia Díaz-Rodrígueza, Javier Del Serb, Mark Coeckelberghd, Marcos López de Pradoe,f,g,EnriqueHerrera-Viedmaa, Francisco Herrera, Connecting the dots in trustworthy Artificial Intelligence: From AI principles, ethics, and key requirements to responsible AI systems and regulation. p13

[102] Socol de la Osa DU, Remolina N. Artificial intelligence at the bench: Legal and ethical challenges of informing—or misinforming—judicial decision-making through generative AI.pe59-8

role in the decision-making process diminishes. This growing autonomy, coupled with the sheer volume of data these systems process and the speed at which they operate, often far exceeds human capabilities, making it virtually impossible for humans to keep up with the systems' operations. The rapid processing and large-scale data analysis may result in decisions that are not only difficult to trace but also hard to verify, increasing the risk of errors or unintended consequences. Another significant issue lies in the quality of data used to train AI systems. Biases in the data—whether in the representation of relevant features or in the selection of data itself—can undermine the reliability and ethical direction of AI. These biases may lead to skewed or discriminatory outcomes, particularly in areas where fairness and accuracy are crucial, such as healthcare, social systems, and criminal justice. In such sensitive fields, where AI decisions can affect people's lives, rights, and freedoms, the need for focused human oversight becomes even more critical. Ethical and social implications of AI-driven decisions demand that human judgment remains involved to ensure that AI systems are used responsibly and ethically.

Generative AI (GenAI) systems also present challenges, especially in fields such as law, where the complexity of human circumstances and the nuanced understanding of context required for fair and ethical legal judgments can be difficult for AI to handle. While GenAI can process vast amounts of data and suggest outcomes, it may struggle to reliably inform decisions with significant legal consequences. In such cases, human oversight remains crucial—not only to ensure the fairness of the outcome but also to maintain the public's perception of fairness. The involvement of human experts is essential to safeguard against potential injustices and to reinforce the legitimacy of AI-driven decisions, especially when they have serious legal or social implications. Thus, while AI and generative AI offer great promise, their integration into high-stakes decision-making processes must be accompanied by careful and robust human oversight to ensure their ethical use and maintain public trust.[103]

[103] Socol de la Osa DU, Remolina N. Artificial intelligence at the bench: Legal and ethical challenges of informing—or misinforming—judicial decision-making through generative AI. *Data & Policy*. 2024;6:e59. doi:10.1017/dap.2024.53

3.2. Strategies for Overcoming Generative Artificial Intelligence Implementation Challenges in Legal Systems

As mentioned previously, generative artificial intelligence (AI) carries several risks that must be addressed and dealt with carefully, as they represent complex challenges that surpass even the systems engineering itself. Therefore, developers and all stakeholders in this field must exert sufficient effort to mitigate these risks. In the next section, some solutions to reduce the risks associated with generative AI are discussed:

3.2.1. Improving Data Governance and IPR

Given the risks and challenges of data governance, developing new legal foundations for data protection is essential to achieve a balance between the open needs of innovation, public safety and user privacy, in addition to mandatory disclosure regarding training data and model capabilities, discovering previously undiscovered concepts regarding data ownership and researching the role of blockchain technology in framing data and privacy is essential with the increasing use of generative artificial intelligence for multimedia models, questions are being raised again about the ethics and effects of using these models, requiring more attention unlike some applications that are also considered pioneering and should be encouraged and developed such as remote work, they also need to be regulated and framed due to their ease of use.[104]

Cross-institutional data-sharing protocols have become increasingly important for ensuring consistent scrutiny of generative AI models across courts and alternative dispute resolution (ADR) institutions. When each institution applies its own standards and evaluation methods, oversight becomes fragmented, creating uneven safeguards and variable levels of accountability. Harmonised governance frameworks—supported by shared audit data, interoperable reporting structures, and collaborative risk-assessment practices—enable more coherent monitoring of AI tools as they evolve. Such coordination reduces duplication of effort, promotes uniform safeguards, and helps ensure that generative models are subject to comparable levels of transparency and reliability regardless of the forum in which they are deployed.[105]

[104] Araz Taeihagh, Governance of Generative AI, *Policy and Society*, Volume 44, Issue 1, January 2025, P,7 https://doi.org/10.1093/polsoc/puaf001

3.2.2. Reducing Bias

GenAI and LLM models can learn patterns from data during training, which may lead to an increase in the rate of biases, even if that information and data were collected only from previous judicial decisions. This represents a real challenge for developers, as these decisions are often made with biases. These biases may be amplified, disseminated, and hidden in the outputs of these models, meaning that they may do this intentionally, which reinforces societal biases even more therefore, many actors and developers suggest that governments and decision-makers should act quickly to encourage responsible innovation and develop these models accurately and responsibly to reduce biases and promote privacy in generative AI systems, the focus should be on the aspect related to data collection, training, and validation of models, in addition to developing tools and procedures for the rapid detection and treatment of biases during the training and deployment process.[106]

3.2.2. Improving Risk Management and Cybersecurity

Researchers in this field believe that developing technological solutions to address the spread of false and misleading information is possible these technologies include identifying artificial media watermarks, and tracing the source from which this information originates, which contributes to controlling the spread of this misleading information, with the huge increase in the trend towards using generative artificial intelligence in the coming years, many problems will naturally increase such as cyberattacks and misleading and false information this requires a kind of digital flexibility between actors in the private and public sectors and between users together, through awareness campaigns to highlight the capabilities and risks related to generative artificial intelligence we have already found that generative artificial intelligence facilitates fraud and cybercrimes therefore, developers and stakeholders are calling for more precautions to be taken, such as improving the response speed of the police and banks, because these operations are carried out very quickly, so that money is transferred from banks to other banks across continents and then it becomes difficult to recover those stolen funds.[107]

3.2.3. Enhancing Public Engagement

The governance of generative AI needs to meet the needs of all stakeholders in technology, not just the major players who control its development, instead of prioritizing quick fixes as a governance outcome it must consider the broader societal needs of all segments of society decision-makers in this area must engage the public through participatory approaches

[106] Socol de la Osa DU, Remolina N. Artificial intelligence at the bench: Legal and ethical challenges of informing—or misinforming—judicial decision-making through generative AI. *Data & Policy*.e59-5

[107] Araz Taeihagh, Governance of Generative AI, *Policy and Society*, Volume 44, Issue 1, January 2025, P,8

to ensure their participation in the process, as they are the primary stakeholders in these models the focus should not be solely on risk mitigation strategies, collaboration between government, industry civil society, the public and academia is crucial for achieving meaningful and transparent outcomes this ensures that the principles of cooperation and participation in developing solutions are respected. All of this falls within the framework of successful generative AI governance.[108]

3.2.4. International Cooperation

Establishing common rules and standards, the most effective practices and mechanisms for addressing existing obstacles and problems that cross borders and global risks, and urging non-fragmentation, is essential to ensure the effectiveness of generative artificial intelligence, in the global context of generative artificial intelligence the European Union, the United States of America and China, it is necessary to maintain diplomatic communication and adhere to international agreements on artificial intelligence, and to ensure the regulation of autonomous weapons and prevent the introduction of artificial intelligence into nuclear weapons and the development of weapons of mass destruction, this can establish global stability and avoid escalation, and also help governments and institutions to strengthen addressing disparities between countries in the development of artificial intelligence, many actors and stakeholders in this matter also propose the establishment of an international governmental body concerned with the risks of artificial intelligence, all of this is in the interest of the end consumer of artificial intelligence namely the citizen, who is directly affected if there is any imbalance at the level of these models.[109]

3.2.5. Reinforcement Learning from Human Feedback

One of the solutions that may find great resonance is enhanced learning from human Feedback as it is necessary to integrate it into these systems to ensure the development and effectiveness of generative artificial intelligence and its adaptation based on human preferences and orientations, this solution is a double-edged sword, as it can go in the opposite direction, supporting biases and building on preconceived ideas however, if it is framed in a controlled, precise and regulated manner through a transparent methodology, it represents broad prospects

[108] Socol de la Osa DU, Remolina N. Artificial intelligence at the bench: Legal and ethical challenges of informing—or misinforming—judicial decision-making through generative AI. *Data & Policy*.e59-5
[109] Araz Taeihagh, Governance of Generative AI, *Policy and Society*, Volume 44, Issue 1, January 2025, P,8

working with developers and experts, RLHF can also provide results and outputs that conform to the legal foundations currently in operation in this regard.[110]

[110] Sidra Nasir, Qamar Abbas, Samita Bai, and Rizwan Ahmed Khan. A Comprehensive Framework for Reliable Legal AI: Combining Specialized Expert Systems and Adaptive Refinement. arXiv:2412.20468v2 [cs.AI] 5 Mar 2025.p8. https://doi.org/10.48550/arXiv.2412.20468

CONCLUSION

One of the most important developments currently taking place in the world of technology is the integration of generative artificial intelligence into conflict resolution Generative Artificial Intelligence offers solutions and facilitations to the judicial process in general, such as enhancing efficiency making justice equally accessible to all, and providing support to judicial bodies, courts, judges, lawyers legal professionals and other stakeholders in this sector. However, optimal results can only be achieved if these technologies are used in a manner consistent with the values of fairness, transparency, accountability, and the protection of fundamental human rights. Therefore, the reliability of Generative AI is a legal and ethical imperative before it is a technical one.

Returning to the EU Artificial Intelligence Act 2024 we find it provides a comprehensive regulatory framework encompassing fundamental rights to ensure the reliable use of AI in the legal process in general, this is achieved by classifying AI-based judicial technologies as high-risk systems therefore, the EU emphasizes transparency, human oversight, and robustness, these commitments constitute a strong legal foundation that directly supports the concept of reliability which I addressed in my thesis.

Simultaneously, they reinforce non-binding international laws, specifically the OECD Principles on AI and UNESCO recommendations, which stress and encourage respect for human-centered principles and democratic values. Despite this progress, we are still at the beginning of the journey. Numerous obstacles, problems, and technical limitations hinder this development, such as bias, ambiguity, and data protection, which pose significant challenges to AI, particularly in legal contexts. Furthermore, there are many technical infrastructure issues. All these challenges require substantial efforts from all stakeholders in this sector. To address these challenges, this thesis, from a range of perspectives, explores a range of related issues. Among the strategies that justice institutions, political actors, and technical experts can adopt are strengthening human oversight, good governance, raising public awareness about these systems, and continuously updating and keeping pace with technological advancements. It's also crucial to try to frame these rapid developments, as the world of technology is evolving at a very fast pace. All these measures, in addition to others I mentioned previously, can facilitate the integration of these systems into our daily lives in general, and the justice system in particular.

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ANNEX 1

Summary

Reliable Use of Generative Artificial Intelligence in Dispute Resolution

Hamza Abdallaoui

This master's thesis explores the reliable integration of generative artificial intelligence in conflict resolution, encompassing courts, online dispute resolution platforms, lawyers, and all legal stakeholders, GI presents a genuine opportunity for achieving high efficiency, reducing time and effort, and ensuring access to justice for all however, it also raises numerous and significant challenges regarding transparency, bias, accountability and data protection therefore, the central question of my thesis revolves around how to introduce and integrate generative AI in a legally sound and reliable manner.

The first part of my thesis addresses the concepts and foundations of conflict resolution and generative AI, providing a comprehensive overview to pave the way for answering the central question in the second part. This second part examines local and international legal frameworks such as European AI law, which is considered one of the most comprehensive systems.

However to be truly comprehensive, it must be continuously updated to keep pace with technological advancements in other words, it must be one step ahead the thesis also addresses international recommendations and principles and compares the European and Chinese approaches to AI, as for the third part, I left it to address the obstacles and challenges facing the integration of generative artificial intelligence in conflict resolution, I also pointed to some solutions proposed by some researchers and those interested in this field to make the best possible use of artificial intelligence and reduce its side effects.

Santrauka

Šiame magistro darbe nagrinėjamas patikimas generatyvinio dirbtinio intelekto integravimas į konfliktų sprendimą, apimantis teismus, internetines ginčų sprendimo platformas, teisininkus ir visus teisinius suinteresuotuosius subjektus, ŽI suteikia realią galimybę pasiekti aukštą efektyvumą, sumažinti laiką ir pastangas bei užtikrinti visiems prieigą prie teisingumo. Tačiau ji taip pat kelia daugybę reikšmingų iššūkių, susijusių su skaidrumu, šališkumu atskaitomybe ir duomenų apsauga. Todėl pagrindinis mano darbo klausimas sukasi apie tai, kaip teisiškai pagrįstu ir patikimu būdu įdiegti ir integruoti generatyvinį dirbtinį intelektą.

Pirmojoje mano darbo dalyje nagrinėjamos konfliktų sprendimo ir generatyvinio dirbtinio intelekto sąvokos ir pagrindai, pateikiant išsamią apžvalgą, kuri padės atsakyti į pagrindinį antroje dalyje pateiktą klausimą. Šioje antroje dalyje nagrinėjamos vietinės ir tarptautinės

teisinės sistemos, tokios kaip Europos dirbtinio intelekto teisė, kuri laikoma viena išsamiausių sistemų. Tačiau, kad ji būtų tikrai išsami, ji turi būti nuolat atnaujinama, kad neatsiliktų nuo technologinės pažangos, kitaip tariant, ji turi būti vienu žingsniu priekyje.

Darbe taip pat aptariamos tarptautinės rekomendacijos ir principai bei lyginami Europos ir Kinijos požiūriai į dirbtinį intelektą. Kalbant apie trečiąją dalį, ją palikau aptarti kliūtis ir iššūkius, su kuriais susiduriama integruojant generatyvinį dirbtinį intelektą konfliktų sprendimo procese, taip pat atkreipiau dėmesį į kai kuriuos šios srities tyrėjų ir besidominčių asmenų pasiūlytus sprendimus, kaip kuo geriau išnaudoti dirbtinį intelektą ir sumažinti jo šalutinį poveikį.