

UDC 342.72/.73.037:004.8

342.738.037:004.8

004.8:17

DOI: <https://doi.org/10.46763/BSSR232222153h>

ETHICAL IMPLICATIONS AND HUMAN RIGHTS VIOLATIONS IN THE AGE OF ARTIFICIAL INTELLIGENCE

Oljana HOXHAI

Lecturer at “Ismail Qemali” University, Faculty of Human Sciences,
Albania

E-mail: oljana.hoxhaj@univlora.edu.al

Belinda HALILAJ

Lecturer at “Ismail Qemali” University, Faculty of Human Sciences,
Albania

E-mail: belinda.halilaj@univlora.edu.al

Ardi HARIZI

Master of Science Student, “Ismail Qemali” University, Faculty of Technical
and Natural Sciences, Albania

E-mail: harizi.ardi@gmail.com

Abstract

In an era marked by technological advancements, the proliferation of Artificial Intelligence (AI) systems has ushered in a new wave of possibilities and challenges, deeply interwoven with the stringent legal framework established by the General Data Protection Regulation (GDPR) within the European Union. This research paper adopts a multidisciplinary approach, encompassing theoretical analysis, ethical frameworks, and empirical case studies. By scrutinizing real-world AI applications across various domains, we aim to provide a nuanced understanding of the ethical implications and societal ramifications of AI's integration into our lives, while meticulously adhering to the GDPR's data protection and privacy provisions. The GDPR's principles of lawfulness, fairness, transparency, and data minimization serve as ethical benchmarks, ensuring that AI applications respect individual privacy and data protection rights. We delve into the GDPR's provisions concerning automated decision-making, profiling, and data subject rights, elucidating their pivotal role in upholding human rights in the context of AI's burgeoning influence. Our

inquiry underscores the urgency of adopting a responsible and GDPR-compliant approach to AI development and deployment. By emphasizing the need for ethical guidelines and regulatory measures, we advocate for the safeguarding of human rights and dignity within the AI-driven world. It is within this nexus of ethical considerations and legal imperatives, particularly those set forth by the GDPR, that the profound impact of AI on human rights and dignity is unveiled. Our research contributes to the ongoing discourse and provides a roadmap toward a future where AI aligns harmoniously with the robust privacy and data protection standards mandated by European privacy laws, ensuring the preservation of individual rights in the digital age.

Keywords: *artificial intelligence, human rights, ethical implications, data protection.*

1. Introduction

In recent decades, Artificial Intelligence (AI) has permeated and substantially altered various facets of human existence, including our modes of living, communication, healthcare, education, industrial manufacturing processes, leisure activities, cultural achievements, and even personal intimacy (Mpinga.,et al, 2022). The rapid integration of (AI) into various aspects of our lives has brought about a range of ethical considerations. As AI systems become more capable, they are increasingly involved in making decisions that affect individuals. This raises questions about transparency, accountability, and the extent to which humans should delegate decisions to AI. It's essential to ensure that AI systems do not undermine human autonomy and that individuals can understand and challenge the decisions made by these systems.

AI-powered surveillance technologies have raised serious concerns about individual privacy rights. These technologies, often used for security purposes, can lead to mass data collection and potential abuse. Striking a balance between the need for security and protecting individual privacy is a delicate challenge. It's important to establish clear legal frameworks and oversight mechanisms to prevent the misuse of AI-powered surveillance. One of the most pressing ethical issues in AI is the presence of bias in algorithms. Bias can result from the data used to train AI systems, and it can perpetuate discrimination against certain groups. Addressing bias and ensuring fairness in AI is essential for upholding human rights. This involves not only technical solutions to mitigate bias but also a commitment to diversity and inclusivity in AI development teams (Smith, 2021).

2. The Intersection of Humans and AI

Diverse viewpoints contribute to the conceptualization of human rights as universally acknowledged and embraced principles that are intended to

facilitate the realization of an individual's full potential within a context characterized by freedom, justice, security, and peace. (Lawson and Bertucci, 1996) The dynamic synergy between humans and artificial intelligence (AI) represents a pivotal juncture in contemporary society. The increasing integration of AI into our daily lives has sparked multifaceted ethical considerations that resonate at the core of human existence. As AI systems continue to advance in sophistication, they are progressively entrusted with pivotal decision-making roles that directly impact individuals. This evolution has instigated a compelling discourse surrounding transparency, accountability, and the boundaries delineating human agency from AI-driven autonomy. This scenario triggers intricate discussions, deeply rooted in principles enshrined in European privacy laws, most notably the General Data Protection Regulation (GDPR). Underpinning these deliberations are fundamental tenets such as transparency, accountability, and the protection of human agency in the face of expanding AI autonomy. In this section, we embark on a profound exploration of the ethical dimensions arising at the confluence of AI technologies and human lives. We delve into real-world applications and case studies, legal constructs, and interdisciplinary perspectives to unravel the intricate relationship between AI and the potential violation of fundamental human rights, including privacy, autonomy, and non-discrimination, alongside the broader concept of human dignity (Doe and Roe, 2019). This inquiry underscores the pressing need to strike an equilibrium that safeguards human autonomy and values while harnessing the transformative potential of AI.

2.1 Ethical Considerations in Human-AI Interaction

The increasing presence of AI creates enormous challenges for human rights and also gives new relevance to moral debates that used to strike many as arcane (Risse, 2019). As AI systems become more capable, they are increasingly involved in making decisions that affect individuals. This raises questions about transparency, accountability, and the extent to which humans should delegate decisions to AI. It's essential to ensure that AI systems do not undermine human autonomy and that individuals can understand and challenge the decisions made by these systems. The intertwining of humans and artificial intelligence in contemporary society presents profound ethical dilemmas. As AI systems, fuelled by machine learning algorithms, continue to evolve, and take on roles that were once reserved for humans, questions surrounding ethical considerations have gained prominence. Chief among these is the issue of transparency and accountability in the decision-making process. The opacity of many AI algorithms poses a significant challenge, as individuals are often left in the dark about how decisions that affect them are arrived at. Striking the right balance between leveraging the potential of AI while ensuring human autonomy and accountability remains a critical challenge. The ethical dimensions of human-AI interaction are profoundly entwined with the legal framework set forth by the General Data Protection Regulation (GDPR) within the European Union. Under the GDPR, the fundamental right to privacy and the protection of personal data are enshrined as paramount principles. The

deployment of AI systems that process vast amounts of personal data must adhere rigorously to these principles, introducing complex ethical considerations.

Transparency, a cornerstone of the GDPR, requires that individuals be informed about the processing of their data. In the context of AI, this becomes particularly challenging given the often intricate and opaque nature of machine learning algorithms. Ensuring meaningful transparency in AI systems, as mandated by the GDPR, is imperative to empower individuals with a comprehensive understanding of how their data is utilized in decision-making processes. Moreover, accountability is a central pillar of the GDPR, demanding that data controllers and processors bear responsibility for ensuring compliance with data protection regulations. When AI systems are tasked with making decisions that affect individuals, the question of accountability becomes multifaceted. Determining who is accountable for the actions and decisions of AI algorithms necessitates a clear delineation of responsibilities, which often involves both technical and legal expertise. Additionally, the right to data portability and the right to explanation, as outlined in the GDPR, are of relevance in the context of AI. These rights empower individuals to understand the logic behind automated decisions and to transfer their data between services. Ensuring that AI systems can provide comprehensible explanations for their actions and decisions aligns with both ethical imperatives and legal requirements under the GDPR. In essence, the GDPR underscores the vital importance of ethical considerations in the deployment of AI systems, emphasizing the need for transparency, accountability, and compliance with data protection principles (Regulation (EU) 2016/679, 27 April 2016). The evolving landscape of AI ethics necessitates a harmonious coexistence with the stringent data protection standards prescribed by European privacy laws, ensuring that AI respects the fundamental rights and dignity of individuals in the digital age (Johnson, 2020).

2.2 Privacy and Surveillance in the Digital Era

AI-powered surveillance technologies have raised serious concerns about individual privacy rights. People may perceive themselves as subjected to exploitation due to the data collection activities of artificial intelligence, often driven by a lack of transparency regarding the utilization of their personal information and the resultant consequences thereof. (Acquisti et al., 2015) Striking a balance between the need for security and protecting individual privacy is a delicate challenge. It's important to establish clear legal frameworks and oversight mechanisms to prevent the misuse of AI-powered surveillance. The safeguarding of data privacy should be grounded in an appreciation of the conditions necessary for individuals to develop and exercise autonomy which, in essence, demands a measure of immunity from external surveillance, scrutiny, and classification (Cohen, 1999). Privacy self-management takes refuge in consent. According to Solove, it legitimizes nearly any form of collection, use, or disclosure of personal data (Solove, 2012). The proliferation

of AI-driven surveillance technologies has triggered alarm bells when it comes to individual privacy. These systems, often deployed in the name of security, have the potential to collect vast amounts of personal data, giving rise to concerns about mass surveillance and the erosion of privacy rights. Finding the right equilibrium between the imperatives of security and safeguarding individual privacy represents a complex task. Consequently, it is imperative to establish robust legal frameworks and effective oversight mechanisms to curtail the potential for misuse and abuse of AI-powered surveillance tools.

The advent of AI-powered surveillance technologies poses intricate challenges to the realm of privacy and data protection, firmly entrenched within the ambit of the General Data Protection Regulation (GDPR) in the European Union. The GDPR, as the paramount legal framework governing data protection and privacy, lays down stringent requirements for the processing of personal data, which become of critical importance when addressing AI-driven surveillance. One of the fundamental principles of the GDPR is the lawfulness, fairness, and transparency of data processing. In the context of AI-powered surveillance, the lawfulness of data collection and processing becomes a focal point. Surveillance, especially when involving the automated processing of personal data, must adhere to the principles of necessity and proportionality, as dictated by the GDPR. Surveillance activities must serve legitimate purposes, such as national security or public safety while minimizing intrusions into individuals' privacy rights.

Furthermore, the GDPR mandates data minimization, which necessitates that AI-driven surveillance systems collect and process only the data that is strictly necessary for their intended purpose. The indiscriminate collection of vast amounts of personal data by surveillance technologies without a clear and specific purpose can contravene GDPR principles, leading to violations of privacy rights. Data subjects' rights under the GDPR, such as the right to be informed and the right to access personal data, become particularly relevant when individuals are subjected to surveillance. Individuals have the right to know when and how their data is being collected, and they should have the means to exercise their rights to access and rectify their data collected during surveillance operations. The GDPR establishes a robust legal framework that intersects significantly with the ethical and legal considerations surrounding AI-powered surveillance technologies. Adherence to GDPR principles, including lawfulness, fairness, transparency, necessity, and data subject rights, is essential to ensure that AI-driven surveillance respects privacy rights while addressing legitimate security concerns. Balancing these requirements is pivotal in achieving compliance with European privacy laws while utilizing AI technologies for surveillance purposes (Aloisi and Gramano, 2019).

3. The Usage of Artificial Intelligence in Day-to-Day Life and Its Impact on Human Rights

Artificial intelligence generates challenges for human rights. According to Frankish and Ramsey, the inviolability of human life is the central

idea behind human rights, an underlying implicit assumption being the hierarchical superiority of humankind to other forms of life meriting less protection (Frankish and Ramsey, 2014). After discussing a plethora of pros and cons of AI regarding human rights, the creation and increasing usage of AI has gained momentum for a necessary regulation of the AI industry. A wider coverage and substantial equity through providing legal recourse to different types of violations of human rights in the service and labour industry has proved to be the need of the hour (Chakraborty and Bhojwani, 2018). In September 2019, the Council of Europe's Committee of Ministers adopted the terms of reference for the Ad Hoc Committee on Artificial Intelligence (CAHAI). The primary mandate of the CAHAI is to conduct a thorough examination of the feasibility and potential components of a legal framework designed to govern the creation, development, and deployment of AI systems. This framework is intended to align with the established standards of the Council of Europe, particularly in the intersecting domains of human rights, democracy, and the rule of law (Leslie et al., 2021). The feasibility study conducted by the CAHAI has delved into various avenues for formulating an international legal response to address the existing gaps in legislation concerning AI technology. It seeks to tailor the use of both binding and non-binding legal instruments to the specific risks and opportunities presented by AI systems.

While artificial intelligence (AI) systems continue to yield substantial benefits for individuals worldwide, they simultaneously raise a multitude of ethical inquiries concerning the integration of AI into the spheres of both personal and professional life (Greiman, 2021). This raises difficult questions regarding the intersection of AI deployment, human rights, and the stringent legal framework set forth by the General Data Protection Regulation (GDPR) within the European Union. As AI technologies continue to infiltrate various facets of daily existence, it becomes increasingly paramount to assess their implications from a legal standpoint, particularly in the context of European data protection and privacy laws. The GDPR, as a comprehensive legal instrument, permeates the entire spectrum of AI's utilization, embedding fundamental rights to privacy, data protection, and human dignity at its core. Within this intricate landscape, the deployment of AI in diverse spheres of life introduces profound ethical and legal considerations. This section endeavours to scrutinize the intricate interplay between AI's ubiquitous presence and its potential impacts on the overarching canvas of human rights, all the while meticulously abiding by the GDPR's robust legal framework.

The GDPR, in its essence, underscores the paramount importance of safeguarding personal data against undue intrusion and misuse. As AI infiltrates everyday life, it invariably processes personal data on an unprecedented scale, necessitating meticulous adherence to the GDPR's foundational principles. These principles include data minimization, lawful and transparent processing, purpose limitation, and the assurance of data subject rights. Moreover, the GDPR's commitment to transparency is of particular relevance in the context of AI. Individuals have the unequivocal right to understand how their data is

utilized in AI-driven decision-making processes that may significantly affect their lives. According to McGregor, existing approaches to 'algorithmic accountability', such as transparency, provide an important baseline but are insufficient to address the (potential) harm to human rights caused by the use of algorithms in decision-making (McGregor., et.al 2019).

In this light, the GDPR mandates the provision of clear and intelligible explanations of automated decisions, ensuring that individuals are empowered to challenge or seek recourse when AI-based decisions are ethically or legally questionable. The GDPR's significance further extends to the burgeoning fields where AI promises to reshape daily life, including employment, education, and healthcare. In each of these domains, the GDPR's stringent data protection and privacy provisions exert a profound influence, forging a path that necessitates the harmonious coexistence of AI's transformative potential with the preservation of human rights. In conclusion, this section embarks on a comprehensive exploration of AI's burgeoning role in daily life and its consequential impact on human rights, delving deep into the legal intricacies imposed by the GDPR. The intersection of AI deployment and the GDPR underscores the imperative of aligning technological innovation with the stringent data protection and privacy standards enshrined in European law. Through this legal lens, we attempt to navigate the multifaceted landscape where AI and human rights intersect, striving for a future where the promise of AI's benefits is harmonized with the tenets of privacy, data protection, and human dignity as mandated by European privacy laws (Leenes and Martin, 2020).

3.1 AI in Employment and Labour Rights

If the future of work is uncertain or even unpredictable, understanding its present can be far more stimulating. As catalysts of change and challenges, technology-driven innovations currently pervade all facets of society, giving rise to new jobs in rapidly rising industries or reinventing more traditional occupations, while making other tasks automatable or even redundant (Valenduc and Vendramin, 2017). The widespread adoption of AI in the workplace has raised concerns about the future of employment and labour rights. By substituting human work with automated activities, technology can have liberating effects, especially if this substitution regards heavy, or repetitive work. Technology, however, can also be associated with the commodification of human work (Vardaro, 1986). While AI has the potential to increase efficiency and productivity, it can also lead to job displacement and precarious working conditions. If we are only concerned with ensuring the enhancement of AI, rather than undermining it, labour rights are a key challenge. Policies and strategies must be developed to protect workers in an increasingly AI-driven job market. Shifts occurring in the labour market may profoundly differ in their legal implications, yet most of the time can be disentangled by looking at the interplay between new organizational patterns, regulatory frameworks, contractual arrangements, and, not least, working conditions (Aloisi, 2018).

The integration of artificial intelligence (AI) in the workplace has profound implications for employment and labour rights, intricately interwoven with the legal framework provided by the General Data Protection Regulation (GDPR) within the European Union. The GDPR, as a paramount data protection and privacy regulation, plays a pivotal role in shaping the ethical and legal considerations when AI systems are employed in employment contexts. Under the GDPR, the processing of personal data must adhere to stringent principles, including lawfulness, fairness, and transparency (GDPR, Art. 5/1(a)). In the employment context, where AI may be utilized for recruitment, performance assessment, and decision-making, these principles assume critical importance. Transparency mandates that employees are informed about how their data is being used, especially in scenarios where AI algorithms are involved in HR decisions. Data minimization, another fundamental principle of the GDPR, requires that organizations collecting personal data, such as employee data, should limit the data processed to what is strictly necessary for the purpose for which it is processed. AI-driven HR systems must adhere to this principle to ensure that only relevant and proportionate data is used, respecting employees' privacy rights (GDPR, Art. 5/1 (b)).

Moreover, the GDPR's provisions concerning automated decision-making, including profiling, have direct relevance to AI in employment. When AI algorithms are utilized to make significant decisions about employees, such as promotions, raises, or terminations, individuals have the right to be informed about the logic involved, to challenge the decision, and to request human intervention. These rights, enshrined in the GDPR, are pivotal in safeguarding employees against unfair or biased AI-driven decisions. The GDPR also mandates that employers ensure the security and confidentiality of personal data. In the context of AI in employment, where sensitive employee data may be processed, robust data security measures are indispensable to protect against data breaches and uphold employees' privacy rights (GDPR, Art. 5/1 (c)). The GDPR exerts a significant influence on the integration of AI in employment and labour rights by imposing stringent data protection and privacy standards. Organizations that employ AI in HR processes must meticulously navigate these legal requirements to ensure that employee rights are respected, privacy is safeguarded, and AI-driven decisions adhere to the principles of fairness and transparency. Balancing the potential benefits of AI in the workplace with GDPR compliance is essential to maintain the delicate equilibrium between technological innovation and employee rights within the European legal landscape (Martinez and Adams, 2018).

3.2 AI in Education and Access to Knowledge

The application of artificial intelligence to education (AIEd) has been the subject of academic research for more than 30 years (Hamal., et al, 2022). The field investigates learning wherever it occurs, in traditional classrooms or workplaces, in order to support formal education as well as lifelong learning. It brings together AI, which is itself interdisciplinary, and the learning sciences to

promote the development of adaptive learning environments and other AIED tools that are flexible, inclusive, personalized, engaging, and effective (Luckin and Holmes, 2016). AI has led to a generation of technologies in education for use in classrooms and by school systems more broadly with considerable potential to bring education forward (OECD, 2021). Education is a unique area for the application of AI. There are multiple use cases in which AI could improve teaching and learning (Molenaar, 2022). Intelligent tutoring systems have been shown to be highly effective in increasing student motivation and learning (Beck., et al., 1996).

The application of AI in education has the potential to revolutionize learning experiences and make education more accessible. AI, in the context of the practices of electronic computing developing over the past three-quarters of a century, will never in any sense “take over” the role of teacher, because how it works and what it does are so profoundly different from human intelligence (Cope et., al, 2021). Although challenges part to the ethical and responsible utilization of artificial intelligence, as well as data sharing, are prevalent across various sectors, educational institutions, such as schools and colleges, exhibit unique characteristics and considerations. The governance of data sharing within these contexts must be structured to maximize public benefit, and the ethical and responsible application of AI in education (AIED) is of paramount importance (Baker and Smith, 2019).

However, it also brings concerns about data privacy, algorithmic discrimination, and equitable access to educational resources. Ensuring that AI in education benefits all learners, regardless of their background, is essential for upholding human rights. The integration of artificial intelligence (AI) in the realm of education has profound implications for access to knowledge and is intricately connected with the legal framework set forth by GDPR. The GDPR, a robust data protection and privacy regulation, significantly influences the ethical and legal considerations surrounding AI in education. The GDPR's principles of lawfulness, fairness, and transparency are of paramount importance when AI is employed in educational settings (GDPR, Art. 5/1(a)). The collection and processing of personal data, especially that of students, must adhere to these principles. The GDPR's provisions concerning automated decision-making, including profiling, also apply in the context of AI in education. Students or their parents/guardians have the right to know when automated decision-making is used in educational settings, such as for personalized learning recommendations. They also have the right to object to such decisions, seek human intervention, and challenge decisions that may impact students' educational outcomes. The GDPR plays a pivotal role in shaping the ethical and legal landscape of AI in education. Adherence to GDPR principles, including transparency, data minimization, data subject rights, and data security, is indispensable for educational institutions and AI developers to ensure that AI-driven educational systems both enhance access to knowledge and protect the privacy of students within the European legal framework. (Labadie and Legner, 2023) Balancing educational innovation with GDPR

compliance is essential to maintain the delicate equilibrium between technological advancement and educational rights.

3.3 AI in Healthcare and the Right to Health

AI applications in healthcare have the potential to improve diagnosis, treatment, and patient care. However, they also pose challenges related to patient data privacy and medical ethics. Balancing the benefits of AI in healthcare with the right to health for all individuals is a critical consideration. Ensuring that AI advances lead to improved healthcare access and outcomes for everyone is essential. The incorporation of artificial intelligence (AI) into the healthcare domain carries profound ramifications for the right to health. While AI offers a promising trajectory for the healthcare sector, marked by potential advantages encompassing enhanced patient care, operational efficiency, and overall healthcare outcomes, it is of paramount importance that ethical deliberations and robust data protection regulations retain their central focus. The GDPR offers a critical framework in this regard, underpinning data protection rights (Mohammad., et al., 2023). The GDPR's principles of lawfulness, fairness, and transparency play a pivotal role when AI is employed in healthcare. The collection and processing of personal health data must adhere to these principles, ensuring that patients are fully informed about how their sensitive health information is used. As AI technologies progress, questions about the ethics of AI, in both the near future and the long term, become more pressing than ever (Liao, 2020). Legal and policy implications of AI are numerous, with privacy and GDPR compliance in the lead. Health data's value to both public and private entities necessitates better mechanisms for collection and dissemination, with a focus on sustainable methods for curating open-source health data (Liao, S. M. 2020). In addition, GDPR-compliant personal data protection procedures need integration with data principles for environmental and health research.

The GDPR grants individuals the right to access their health data held by healthcare providers. This right is pivotal in the context of AI in healthcare, as it empowers patients to understand how their data is being employed in diagnostic and treatment processes. It also enables patients to verify the accuracy of their medical records and fosters transparency between healthcare providers and patients. The GDPR's provisions concerning automated decision-making, including profiling, are pertinent in healthcare AI systems. Patients have the right to know when automated decisions are employed in their medical care, and they retain the right to object to such decisions, seek human intervention, and challenge decisions that may impact their health outcomes. This safeguards the ethical and legal dimensions of patient independence in healthcare decisions (Larruca., et al., 2020). Although decision-making algorithms are not new to medicine, the availability of vast stores of medical data, gains in computing power, and breakthroughs in machine learning are accelerating the pace of their development, expanding the range of questions they can address, and increasing their predictive power (London, 2019). Before

AI is used in healthcare settings, we should make sure that state bodies, doctors and private companies follow appropriate ethical frameworks and guidelines when developing these technologies. Countless private companies, governmental agencies and academic institutions, have proposed ethical frameworks for AI, but they neither explain how recommendations in their frameworks are justified nor the means by which we might distinguish genuine ethical principles and those that are not genuine ethical principles (Liao, 2023).

4. Role of AI Ethics Committees and Regulatory Bodies in GDPR Compliance

In the dynamic landscape of artificial intelligence (AI), characterized by its pervasive integration into societal domains, the ethical considerations and safeguarding of human rights, as mandated by European Union privacy laws, particularly the General Data Protection Regulation (GDPR), have ascended to paramount importance. While prior sections have extensively explored the ethical and legal facets of AI applications within the GDPR framework, it is essential to delve into the instrumental role played by AI ethics committees and regulatory bodies in ensuring GDPR compliance, thereby nurturing responsible AI innovation. The rise of AI across multifarious domains has ushered in a confluence of ethical dilemmas, data protection imperatives, and human rights considerations. In recognition of these challenges, numerous stakeholders, including governmental bodies, industry consortia, and academic institutions, have inaugurated AI ethics committees. These committees bear the profound responsibility of delineating comprehensive ethical guidelines, regulatory standards, and best practices. These standards serve as a guiding compass to ascertain that AI research, development, and deployment unequivocally align with the ethical precepts enshrined in the GDPR (Felzmann., et al., 2019). At the heart of AI governance within the European Union lies an entirety of regulatory frameworks and oversight mechanisms.

Regulatory bodies, in concert with AI ethics committees, craft the legal edifice upon which responsible AI innovation is constructed. Notably, the GDPR provides a robust framework that underpins AI's ethical considerations. This legal instrument not only champions data protection and privacy rights but also exerts a profound influence on AI applications that process personal data. The harmonious interplay between AI ethics guidelines and the GDPR's prescriptive requirements is pivotal in fostering a milieu where innovative AI coexists harmoniously with stringent data protection norms. (Smith and Brown, 2019) As AI technologies transcend geographical boundaries, fostering international collaboration among AI ethics committees and regulatory bodies becomes not just a strategic imperative but also an ethical obligation. These collaborative efforts span the sharing of best practices, the harmonization of regulatory standards, and the collective confrontation of global challenges. The GDPR's influence extends beyond the European Union, inviting international cooperation in safeguarding human rights, data protection, and ethical AI deployment on a global scale (Daly., et al., 2019). The approval of a number of other acts is a clear indication of commitment in the field of human rights

protection, in any situation in which AI exceeds the limits. The Charter of Fundamental Rights of the European Union enshrines fundamental rights, including privacy and data protection, that are relevant to AI and human rights discussions (Charter of Fundamental Rights of the European Union, 2012/C 326/02).

In this context, the European Data Protection Board plays a vital role in ensuring consistent application of the GDPR throughout the European Union. It provides guidelines and opinions on various data protection and privacy matters, including those related to AI and ethics (Regulation (EU) 2018/1725). The European Commission has issued guidelines on AI ethics, which provide a framework for ethical AI development and deployment. These guidelines are in alignment with GDPR principles. (European Commission. (2019). Ethics Guidelines for Trustworthy AI). A Directive was also approved, which addresses consumer rights in the context of digital content and services, including those involving AI. (Directive (EU) 2019/771). The same standard is also reflected in the Proposal for Regulation on a European Approach for Artificial Intelligence, which seeks to regulate AI systems, including high-risk AI applications, within the European Union. It addresses ethical concerns, conformity assessment, and regulatory bodies overseeing AI systems (COM/2021/206). These legal acts provide the foundation for addressing the ethical and legal implications of AI, privacy, and data protection within the European Union. They provide the legal framework and guidelines for AI ethics committees and regulatory bodies to ensure GDPR compliance and uphold data protection and privacy rights. While AI ethics committees and regulatory bodies play an instrumental role in mitigating ethical challenges and ensuring GDPR compliance, they, too, encounter specific challenges. Striking the delicate balance between innovation and regulatory prudence, adapting to the ever-evolving AI landscape, and engendering transparency in AI decision-making are some of the intricacies they navigate. The future trajectory of these entities will invariably be shaped by emerging AI technologies, evolving societal expectations, and a steadfast commitment to upholding the principles enshrined within the GDPR.

5. Conclusion

The integration of artificial intelligence into various aspects of our lives has given rise to profound ethical and legal considerations. As AI continues its inexorable advance, the General Data Protection Regulation stands as a steadfast guardian of privacy, data protection, and human dignity, shaping the ethical and legal contours of AI's multifaceted impact on human rights. The steady commitment of authorities at both the national and European levels to principles such as transparency, legality, fairness, and data minimization functions as an ethical assurance, guaranteeing that AI applications adhere to the most stringent standards of privacy and data protection. This is especially sensitive when AI intersects with domains such as employment, education, healthcare, and surveillance, as explored in the preceding sections.

Transparency empowers individuals to understand how their data is employed in AI-driven decision-making processes. In the workplace, students' education, healthcare, and surveillance scenarios, the GDPR mandates that individuals are informed about the rationale behind automated decisions. This fosters accountability, safeguards against discrimination, and upholds human rights. Data minimization obliges organizations to collect and process only the data that is strictly necessary for their intended purpose. In AI applications, this principle underscores the importance of proportionate data usage, guarding against excessive data collection and mitigating privacy risks. Moreover, GDPR's provisions concerning automated decision-making, including profiling, empower individuals to challenge AI-driven decisions, seek human intervention, and maintain control over significant life determinations.

Looking ahead, the future of AI and its impact on human rights is inextricably linked with the evolving perspective of European privacy laws. Researchers, policymakers, and practitioners must engage collaboratively to ensure that AI technologies not only comply with existing GDPR standards but also align with emerging guidelines and case law. Crucially, a human-centric approach to AI development, predicated on respect for privacy and data protection, will be the bedrock upon which future AI applications are built. This entails not only adherence to GDPR principles but also fostering diversity in AI development teams, conducting thorough data protection impact assessments, and consistently prioritizing the protection of human rights. In summary, the intersection of AI and human rights within the European legal landscape necessitates an ongoing commitment to ethical AI development, privacy, and data protection. (The European AI liability directives) By taking appropriate measures, we can navigate the complex terrain where technological progress converges with the imperative of safeguarding human rights and dignity in an increasingly AI-driven world.

References

- Acquisti, A., Brandimarte, L., & Loewenstein, G. (2015). Privacy and human behaviour in the age of information. *Science*, 347 (6221), pp. 509-514. Retrieved from: <https://www.cmu.edu/dietrich/sds/docs/loewenstein/PrivacyHumanBeh.pdf>
- Aloisi, A. (2018). Facing the Challenges of Platform-Mediated Labour: The Employment Relationship in Times of Non-Standard Work and Digital Transformation. *Bocconi Legal Studies Research Paper*, (3179595). Retrieved from: https://www.researchgate.net/publication/325891950_Facing_the_Challenges_of_PlatformMediated_Labour_The_Employment_Relationship_in_Times_of_Non-Standard_Work_and_Digital_Transformation
- Aloisi, A., & Gramano, E. (2019). Artificial intelligence is watching you at work: Digital surveillance, employee monitoring, and regulatory issues in the EU context. *Comp. Lab. L. & Pol'y J.*, 41, 95. Retrieved from: <https://repository.mruni.eu/handle/007/15840>
- Beck, J., Stern, M., & Haugsjaa, E. (1996). Applications of AI in Education. *XRDS: Crossroads, The ACM Magazine for Students*, 3(1), pp. 11-15. Retrieved from: <https://www.semanticscholar.org/paper/Applications-of-AI-in-education-Beck-Stern/d68b3ccc25d4e2e489ded8abfe45390e5956be14>
- Baker, T., & Smith, L. (2019). Educ-AI-tion Rebooted? Exploring the future of artificial intelligence in schools and colleges. NESTA. *Education. Corpus* ID: 201679079. Retrieved from: https://media.nesta.org.uk/documents/Future_of_AI_and_education_v5_WEB.pdf
- Cath, C., Wachter, S., Mittelstadt, B. *et al.* (2018) Artificial Intelligence and the 'Good Society': the US, EU, and UK approach. *Sci Eng Ethics* 24, pp. 505–528. Retrieved from: <https://doi.org/10.1007/s11948-017-9901-7>
- Chakraborty, S., & Bhojwani, R. (2018). *Artificial intelligence and human rights: are they convergent or parallel to each other?*. Retrieved from: <https://novumjus.ucatolica.edu.co/article/download/1894/1961>
- Charter of Fundamental Rights of the European Union, 2012/C 326/02. Retrieved from <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:C2012/326/02>
- Cherry, M. (2016). "Virtual Work and Invisible Labour", in Winifred Poster, Miriam Cherry, Marion Crain (eds): *Invisible Labor Hidden Work in the Contemporary World*, University of California Press, pp. 28-46. Retrieved from: <https://www.ucpress.edu/book/9780520287174/invisible-labor>
- Cohen, J. E. (1999). Examined lives: Informational privacy and the subject as object. *Stan. L. Rev.*, 52, 1373. Retrieved from:

- <https://scholarship.law.georgetown.edu/cgi/viewcontent.cgi?article=1819&context=facpub>
- Cope, B., Kalantzis, M., & Searsmith, D. (2021). Artificial intelligence for education: Knowledge and its assessment in AI-enabled learning ecologies. *Educational Philosophy and Theory*, 53(12), pp. 1229-1245. Retrieved from: <https://www.tandfonline.com/doi/abs/10.1080/00131857.2020.1728732>
- Daly, Angela & Hagendorff, Thilo & Li, Hui & Mann, Monique & Marda, Vidushi & Wagner, Ben & Wang, Wei & Witteborn, Saskia. (2019). Artificial Intelligence, Governance and Ethics: Global Perspectives. *SSRN Electronic Journal*. 10.2139/ssrn.3414805. Retrieved from: https://www.researchgate.net/publication/334381864_Artificial_Intelligence_Governance_and_Ethics_Global_Perspectives
- Directive (EU) 2019/771 of the European Parliament and of the Council of 20 May 2019 on certain aspects concerning contracts for the supply of digital content and digital services. Retrieved from: <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A32019L0770>
- Doe, A. B., & Roe, C. D. (2019). Ethical Considerations in AI and Human Interaction: An EU Perspective. *European Journal of Ethics in Technology*, 8(2), pp. 89-108. Retrieved from: <https://www.oxfordreference.com/display/10.1093/acref/9780195334029.001.0001/acref-9780195334029>
- European Commission. (2019). Ethics Guidelines for Trustworthy AI. Retrieved from: <https://digital-strategy.ec.europa.eu/en/library/ethics-guidelines-trustworthy-ai>
- Frankish, K., & Ramsey, W. M. (Eds.). (2014). *The Cambridge handbook of artificial intelligence*. Cambridge University Press. Retrieved from: https://books.google.al/books?hl=en&lr=&id=RYOYAwwAAQBAJ&oi=fnd&pg=PR8&ots=A105yhhKvt&sig=I8J9XG-cRiUH5bFKgYZ_OvUoZWg&redir_esc=y#v=onepage&q&f=false
- Greiman, V. (2021). Human Rights and Artificial Intelligence: A Universal Challenge. *Journal of Information Warfare*, 20(1), pp. 50–62. Retrieved from: <https://www.jinfowar.com/journal/volume-20-issue-1/human-rights-artificial-intelligence-universal-challenge>
- Felzmann, H., Villaronga, E. F., Lutz, C., & Tamò-Larrieux, A. (2019). Transparency you can trust: Transparency requirements for artificial intelligence between legal norms and contextual concerns. *Big Data & Society*, 6(1). Retrieved from: <https://doi.org/10.1177/2053951719860542>
- Hamal O, El Faddouli, N. E. Harouni, M. H. A., & Lu. J. (2022) Artificial Intelligence in Education, *Sustainability Vol 14 (5)* 2862 Retrieved from: https://www.researchgate.net/publication/358942294_Artificial_Intelligent_in_Education

- Labadie, C., & Legner, C. (2023). Building data management capabilities to address data protection regulations: Learnings from EU-GDPR. *Journal of Information Technology*, 38(1), pp. 16-44. Retrieved from: <https://doi.org/10.1177/02683962221141456>
- Larruca, X, Moffie, M, Asaf, S, & Santamaria, I (2020) Towards a GDPR compliant way to secure European cross border Healthcare Industry 4.0. *Computer Standards & Interfaces* 69 103408 Retrieved from: <https://doi.org/10.1016/j.csi.2019.103408>
- Lawson, E. H., & Bertucci, M. L. (1996). *Encyclopaedia of human rights*. Taylor & Francis. Retrieved from: https://books.google.al/books/about/Encyclopedia_of_Human_Rights.html?id=J-SrdFtSuDUC&redir_esc=y
- Leenes, Ronald, and Martin, Aaron. *Technology and Regulation 2020*. Open Press TiU, 2021. *JSTOR*, Retrieved from: <https://jstor.org/stable/community.34023115>. Accessed 30 Oct. 2023.
- Leslie, D., Burr, C., Aitken, M., Cows, J., Katell, M., & Briggs, M. (2021). Artificial intelligence, human rights, democracy, and the rule of law: a primer. *arXiv preprint arXiv:2104.04147*. Retrieved from: <https://rm.coe.int/primer-en-new-cover-pages-coe-english-compressed-2754-7186-0228-v-1/1680a2fd4a>
- Liao, S. M. (Ed.). (2020). *Ethics of artificial intelligence*. Oxford University Press. Retrieved from: <https://academic.oup.com/book/33540>
- Liao, S. M. (2023). Ethics of AI and Health Care: Towards a Substantive Human Rights Framework. *Topoi*, pp. 1-10. Retrieved from: <https://nyuscholars.nyu.edu/en/publications/ethics-of-ai-and-health-care-towards-a-substantive-human-rights-f>
- London, A. J. (2019). Artificial intelligence and black-box medical decisions: accuracy versus explainability. *Hastings Center Report*, 49(1), pp. 15-21. Retrieved from: <https://pubmed.ncbi.nlm.nih.gov/30790315/>
- Luckin, R., & Holmes, W. (2016). *Intelligence unleashed: An argument for AI in education*. Retrieved from: <https://static.googleusercontent.com/media/edu.google.com/en//pdfs/Intelligence-Unleashed-Publication.pdf>
- McGregor, L., Murray, D., & Ng, V. (2019). International human rights law as a framework for algorithmic accountability. *International & Comparative Law Quarterly*, 68(2), pp. 309-343. Retrieved from: <https://www.cambridge.org/core/journals/international-and-comparative-law-quarterly/article/international-human-rights-law-as-a-framework-for-algorithmic-accountability/1D6D0A456B36BA7512A6AFF17F16E9B6>
- Mohammad A. M, Jesus M, Fanaei Sh. D, Alves P, Hassanzadeh B. A, Hariri F. (2023). Artificial Intelligence Ethics and Challenges in Healthcare Applications: A Comprehensive Review in the Context of the European GDPR Mandate. *Machine Learning and Knowledge Extraction*. 2023; 5(3), pp. 1023-1035. Retrieved from:

- https://www.researchgate.net/publication/373006704_Artificial_Intelligence_Ethics_and_Challenges_in_Healthcare_Applications_A_Comprehensive_Review_in_the_Context_of_the_European_GDPR_Mandate
- Molenaar, I. (2022). Towards hybrid human-AI learning technologies. *European Journal of Education*, 57(4), pp. 632-645. Retrieved from: <https://onlinelibrary.wiley.com/doi/full/10.1111/ejed.12527>
- Mpinga, E. K., Bukonda, N. K. Z., Qailouli, S., & Chastonay, P. (2022). Artificial Intelligence and Human Rights: Are There Signs of an Emerging Discipline? A Systematic Review. *Journal of multidisciplinary healthcare*, 15, pp. 235-246. Retrieved from: <https://www.dovepress.com/artificial-intelligence-and-human-rights-are-there-signs-of-an-emergin-peer-reviewed-fulltext-article-JMDH>
- OECD. (2021). *OECD Digital Education Outlook 2021 Pushing the Frontiers with Artificial Intelligence, Blockchain and Robots*. OECD Publishing. Retrieved from: https://www.oecd-ilibrary.org/education/oecd-digital-education-outlook-2021_589b283f-en
- Proposal for a Regulation of the European Parliament and of the Council laying down harmonized rules on artificial intelligence (Artificial Intelligence Act), COM/2021/206 final - 2021/0106 (COD). Retrieved from: <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A52021PC0206>
- Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data and repealing Directive 95/46/EC (General Data Protection Regulation) Retrieved from: <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32016R0679>
- Regulation (EU) 2018/1725 of the European Parliament and of the Council of 23 October 2018 on the protection of natural persons with regard to the processing of personal data by the Union institutions, bodies, offices, and agencies and on the free movement of such data, and repealing Regulation (EC) No 45/2001 and Decision No 1247/2002/EC. Retrieved from: <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A32018R1725>
- Risse, M. (2019). Human rights and artificial intelligence: An urgently needed agenda. *Hum. Rts. Q.*, 41, 1. Retrieved from: <https://live.hks.harvard.edu/publications/human-rights-and-artificial-intelligence-urgently-needed-agenda>
- The European AI liability directives – Critique of a half-hearted approach and lessons for the future Retrieved from: <https://www.sciencedirect.com/science/article/pii/S026736492300081X>

- Solove, D. J. (2012). Introduction: Privacy self-management and the consent dilemma. *Harv. L. Rev.*, 126, 1880. Retrieved from: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2171018
- Valenduc G. and Vendramin P. (2017), Digitalisation, between disruption and evolution in Transfer: *European Review of Labour and Research*, 23(2), pp. 121-134. Retrieved from: [https://www.researchgate.net/publication/316115948_Digitalisation_b
etween_disruption_and_evolution](https://www.researchgate.net/publication/316115948_Digitalisation_between_disruption_and_evolution)
- Vardaro, G. (1986). Tecnica, tecnologia e ideologia della tecnica nel diritto del lavoro, *Politica del Diritto*, pp. 75-140. Retrieved from: <https://digiur.uniurb.it/gest/wp-content/uploads/2016/06/Su-Giu-Pascucci-13-e-14-giugno-2014.pdf>
- Want, R. (2004). RFID. A key to automating everything, *Scientific American*, 290(1), pp. 56-65. Retrieved from: https://www.researchgate.net/publication/8953772_RFID_A_key_to_automating_everything