Opportunities and Threats of Artificial Intelligence for Human Rights with Emphasis on the Fourth Generation and Human Dignity

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Abstract

Artificial intelligence (AI) represents a set of technologies that enable computers to perform a wide range of advanced functions, including visual recognition, comprehension and translation of spoken and written language, data analysis, provision of recommendations, and beyond. In another definition, AI refers to computer systems capable of executing complex tasks historically attributed only to humans—such as reasoning, decision-making, and problem-solving. AI has transformed societies and continues to shape how we live, work, and interact. With the advancement of AI technologies, their impact on human rights will intensify, generating both opportunities and challenges. This study, by employing an interdisciplinary conceptual framework that integrates the theory of international regimes and the SWOT technique, seeks to examine the influence of AI on human dignity. The findings indicate the dual (opportunity—challenge) impacts of AI on human dignity across domains such as justice, healthcare, privacy protection, and beyond. While AI systems have the potential to substantially advance the protection and promotion of human rights, democracy, and the rule of law, they simultaneously pose serious risks, including discrimination, gender inequality, violations of human dignity, misuse of AI by states for repressive purposes, and breaches of international human rights law.

Keywords: Artificial Intelligence, Human Rights, Fourth Generation of Human Rights, Human Dignity, Legal Regime

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Introduction and Problem Statement

Human rights are inherent entitlements of all individuals, irrespective of race, gender, nationality, ethnicity, language, religion, or any other status. They encompass the right to life and liberty, freedom from slavery and torture, freedom of thought and expression, customary international norms, and actions recognized by international organizations. All human beings are entitled to these rights without discrimination. Human rights have evolved through various stages of development. Historically, four generations of civil and political human rights have been identified. The legacy of early liberalism and the Enlightenment advanced the liberal conception of human rights in relation to democracy and the state. The principle of self-determination in the age of empires fostered the growth of human rights within the framework of the modern state and democracy. In the era of globalization, human rights drew attention to labor conditions, international development, and environmental justice. Following these three generations, the most recent advances now encompass human rights in relation to collective state and global surveillance, particularly concerning the use of artificial intelligence and social media platforms.

The fourth generation of human rights includes emerging rights whose legal characteristics remain under development and are still the subject of scholarly debate. These rights are closely linked to technological progress—whether digital or biological. For instance, medical experiments on stem cells for therapeutic or reproductive purposes, euthanasia, human cloning, genetic modification, automation, the internet and its regulatory challenges,

along with other issues unimaginable just a few decades ago, are situated within the scope of fourth-generation human rights. Today, it can be argued that a completely new generation of human rights is emerging, directly tied to the technological evolution of humanity. Despite the universal and inalienable nature of human rights and their protection under both national and international law, fourth-generation human rights—particularly human dignity—have been profoundly affected by digitalization and, more specifically, by the rise of artificial intelligence. These developments present both opportunities and challenges for human dignity and human rights.

This research, through an interdisciplinary approach, develops a conceptual framework that incorporates the SWOT¹ model in order to address the central research question: What are the opportunities and challenges posed by artificial intelligence for human rights, with particular emphasis on human dignity?

1. Literature and Theoretical Framework

1.1. Literature Review

Dulima and Andrea (2023), in their article "Human Rights in the Implementation of Artificial Intelligence", demonstrated that the application of AI has raised significant human rights concerns. Their study highlighted the emergence of multiple debates surrounding the ethical principles necessary for the development of AI and its products.

Blanchard and Taddeo (2023), in their work "AI Ethics for Intelligence Analysis", argued that intelligence agencies have identified AI as

^{1.} SWOT stands for Strengths, Weaknesses, Opportunities, and Threats.

a critical technology for maintaining strategic superiority over adversaries.

Sapiński (2022), in his article "Analyzing the Role of International Organizations in Regulating Fourth-Generation Rights", emphasized that fourth-generation rights constitute a novel phenomenon that has arisen in close connection with scientific and technological progress.

Risse (2021), in the article "The Fourth Generation of Human Rights: Epistemic Rights in the Digital Age", pointed out that epistemic rights—considered as a complement to existing human rights and as part of the fourth generation—are essential to protecting epistemic actors in their respective roles.

Tzimas (2021), in his article "Artificial Intelligence and Human Rights: Their Role in the Evolution of AI", demonstrated that human rights can play an essential role in shaping AI's machine learning processes. The article also advanced an argument against the legitimacy of general artificial intelligence and superintelligence, grounding its reasoning in human rights and the anthropocentric nature of these rights.

A review of the existing literature indicates that, despite the growing body of research on AI and human rights, no study has specifically examined fourth-generation human rights from the perspective of human dignity in the context of emerging technologies such as AI. Most studies have concentrated primarily on the interplay between AI and human rights, while none have directly focused on the fourth generation of human rights with explicit emphasis on the principle of human dignity.

1.2. Conceptual Framework of the Research

In most cases, analyzing issues in international relations solely through a single theory of international relations or a single strategic management model does not provide a comprehensive analytical capacity. Accordingly, this study, taking this limitation into account, seeks to construct a conceptual model that integrates the SWOT framework with the theory of international regimes in order to analyze artificial intelligence and its impacts on fourthgeneration human rights, with particular emphasis on human dignity.

1.2.1. Strategic Management with Emphasis on the SWOT Technique

The first part of the conceptual framework elaborates on the SWOT model. The SWOT matrix is regarded as the most fundamental and widely employed model of strategic management, enabling strategic analysis and decision-making across diverse fields. A review of the historical development of this matrix reveals that while some scholars attribute its origin to the Harvard Business School, others trace its emergence to Stanford University (Gurel, 2017: 1001). The analytical process of this model encompasses four domains across two dimensions: strengths, weaknesses, opportunities, and threats. Strengths and weaknesses are internal organizational factors and characteristics, whereas opportunities and threats are external environmental factors (Kumar, 2023: 744).

1.2.2. Theory of International Regimes

Krasner defines a regime as: "implicit or explicit principles, norms, rules, and decision-making procedures around which actors' expectations converge in a given area of international relations." Donald Puchala and Raymond Hopkins argue that "a regime exists in every fundamental sphere of international relations. Wherever order is observed in behavior, there must be some set of principles, norms, or rules that account for it. Yet patterned behavior alone should not necessarily

lead to the conclusion that a regime has emerged. The term 'regime' is sometimes used descriptively to categorize a spectrum of state behaviors within a specific issue-area" (Haggard & Simmons, 1987: 493–494).

The international human rights regime is grounded in the principles of dignity, equal worth, and equal rights for "all members of the human family," without any distinction such as race, color, gender, language, or religion. It further rests on the recognition that human rights are inherently inalienable, universal, interdependent, and indivisible. International human rights instruments not only define the normative foundations of the regime but also codify a body of binding rules (Emilie, 2013: 144).

As observed, in relation to the three preceding generations of human rights, international legal regimes have already been established, institutionalizing practices around these issues. Although the international regime for fourthgeneration human rights is still in the process of formulation, artificial intelligence and fourth-generation rights can readily be analyzed within the framework of international regimes. Thus, this theory will be applied in the context of the present study.

2. Human Rights: Conceptualization, Historical Background, and Instances

2.1. Conceptualization

Human rights are a concept that has continuously evolved throughout the course of human history, intricately interwoven with laws, customs, and religions across the ages. Most societies have upheld traditions akin to the "Golden Rule": "Do unto others as you would have them do unto you." The Hindu Vedas, the Babylonian Code of Hammurabi, the Bible, the Qur'an, and the teachings of Confucius represent five of the earliest recorded

sources addressing questions of duties, rights, responsibilities, and what we now identify as human rights (Kori, 2018: 64). The United Nations, in its publication Human Rights: Questions and Answers (1987), defines human rights in the simplest of terms as follows:

"Human rights and fundamental freedoms allow us to fully develop and utilize our human qualities, our intelligence, our talents, and our conscience, and to satisfy our spiritual and other needs" (United Nations, Human Rights: Questions and Answers, 1987: 4).

Human rights law has also been described as a system of rights and duties monitored and enforced by legal institutions to ensure that human rights are respected, protected, and fulfilled (Sharom et al., 2018: 14–15).

This discussion leads us to a fundamental and self-evident conclusion: human rights are those rights to which every individual is entitled simply by virtue of being human. No additional conditions are required beyond one's humanity. Therefore, it can be inferred that all individuals—regardless of social status, geographic location, or regional affiliation—must be entitled to the enjoyment of human rights.

2.2. Historical Background, Instances, and Characteristics of Human Rights

2.2.1. Historical Background

Pinpointing the precise moment when the concept of human rights first emerged is difficult. Many traditional cultures and societies had long embraced the intrinsic value of every individual as a human being. Nevertheless, it was in early modern Europe that the idea of human rights began to formally crystallize under the notion of "natural rights" (Pruthi, 2022).

On 10 December 1948, the United Nations General Assembly marked a historic milestone. The idea that there should be a document establishing protections and entitlements

for all people gained momentum during the Second World War. The growing perception in the twentieth century that humanity had repeatedly strayed dramatically off course created an environment in the late 1940s conducive to the short-lived flourishing of the institutionalization of human rights—before the world entered the Cold War. While the United Nations, at its founding in 1945, did not initially commit to a detailed human rights framework, a committee was mandated to address this task. Under the leadership of Eleanor Roosevelt, the Human Rights Commission drafted a preamble and thirty articles, which were later adopted by the General Assembly in 1948 as the Universal Declaration of Human Rights² (Risse, 2021: 2).

As noted above, one of the most significant international legal instruments addressing human rights is the UDHR of 1948. The Declaration is a landmark document that proclaims fundamental human rights and calls on all nations to safeguard them. Drafted by representatives with diverse legal and cultural backgrounds from across the globe, the UDHR was adopted in Paris on 10 December 1948 by the United Nations General Assembly as a "common standard of achievement for all peoples and all nations." For the first time, it articulated a set of basic human rights that must be universally protected (Ebad et al., 2017: 190).

2.2.2. Instances

Human rights encompass thirty components as outlined in the Universal Declaration of Human Rights. Illustrative examples include:

Right to equality (Article 1) Right to life, liberty, and security of person (Article 3) Freedom from torture and degrading treatment

(Article 5) Freedom from slavery (Article 4) Right to education (Article 26) Right to peaceful assembly and association (Article 20) Right to an adequate standard of living (Article 25) Freedom of thought, conscience, and religion (Article 18); Freedom of opinion and expression (Article 19) (Lawbhoomi, 2024: 1).

2.2.3. Characteristics

The defining features of human rights, which also constitute their essential attributes, include:

Fundamentality – Human rights are essential. Without them, society falls into dire conditions. Universality – Human rights are universal; they are equally accessible to all individuals regardless of differences among people (Mubangizi, 2004: 96). Non-absoluteness – Human rights are never absolute. Each right is subject to limitations deemed necessary for public health, order, and morality. These rights are not unrestricted. Inalienability – Human rights are inherently inalienable. No one can be legitimately deprived of these rights (Lawbhoomi, 2024: 1).

3. Generations of Human Rights

The traditional classification, which was widely accepted prior to the communication revolution and the advent of artificial intelligence, divides human rights into three categories: first-generation, second-generation, and third-generation rights. This categorization follows the historical development of human rights. More than four decades have passed since Karel Vašák introduced the concept of the three generations of rights (Ishay, 2008:

². UDHR

258). The main problem with this tripartite classification lies in its inconsistency with the principles of universality, indivisibility, and interdependence of human rights (Mubangizi, 2004: 98).

Today, humanity is experiencing a new stage of evolution. The scientific and technological revolution of the late twentieth and early twenty-first centuries, accompanied by remarkable breakthroughs in medicine, biology, and genetics, the rapid development of information and communication technologies, and the expansion of digital spaces, has significantly transformed human consciousness. These shifts have modernized social relations, including legal relations. As a result, issues related to the use of the internet, virtual reality, euthanasia, gender reassignment, organ transplantation, artificial fertilization, cloning, and similar phenomena have increasingly come to the fore. The pressing need to regulate these new social phenomena has led to the emergence of the fourth generation of human rights (Dovhan, 2022: 289).

3.1. First Generation

The first generation of human rights—often referred to as "blue rights"—is comprised of civil and political rights. These are the traditional rights of the individual vis-à-vis the state and embody the doctrine of non-interference by the government in the lives of citizens. The purpose of these rights is to protect individuals from arbitrary actions by the state. They include the right to life, liberty, and security; the right to privacy; the right to a fair trial; the right to equality and dignity, as well as freedom from torture and inhumane treatment, freedom from slavery and forced labor, freedom of religion, belief, and expression, freedom of association, and freedom of movement. Political rights are also included in this category, ensuring individuals' participation in government either directly or through freely elected representatives (Mubangizi, 2004: 95).

3.2. Second Generation

The second generation of human rights—often referred to as "red rights"—encompasses economic, social, and cultural rights. Unlike first-generation rights, these rights require more proactive involvement by the state, either through direct provision or at least by creating the necessary conditions for access to facilities deemed essential for modern life. This generation emphasizes the principle of equality. It includes the right to work, the right to fair wages, the right to collective bargaining, the right to property, the right to housing, the right to education, the right to healthcare and related services, the right to social security, and the right to freely participate in cultural life of one's choice (Mubangizi, 2004: 96). Key legal instruments for understanding second-generation rights include Articles 22 to 27 of the Universal Declaration of Human Rights and the International Covenant on Economic, Social and Cultural Rights (1966) (Pruthi, 2022).

3.3. Third Generation

The third generation of human rights—also known as "green rights"—emerged after 1945 and are commonly referred to as solidarity rights. The rationale behind this terminology lies in the fact that these rights generally pertain not to individuals in isolation, but to social groups and communities at large, and are therefore regarded as collective rights. At the core of third-generation rights lies the principle of solidarity and collective entitlement. These rights include the right to development, the right to a healthy environment, the right to self-determination, the right to participate in cultural heritage, intergenerational justice and sustainability, the right to peace, among others. The 1972 Stockholm Conference on the Human Environment and the 1992 Rio Earth Summit are key reference points in understanding this category of rights (Pruthi, 2022).

3.4. Fourth Generation

The fourth generation of human rights emerged in the 1990s in response to scientific and technological advances, particularly in areas such as organ transplantation, artificial fertilization, cloning, and related bioethical issues (Sapiński, 2022: 14). At present, there is no universally accepted definition or framework regarding which rights fall under this generation. However, the foundation of fourth-generation rights is shaped by several key principles: individual sovereignty vis-àvis the state; the recognition of the individual as paramount by the international community: efforts toward harmonization of legal and ethical norms governing individual conduct; and the recognition of individuality as a fundamental human right (Sapiński, 2022: 21).

Fourth-generation rights also extend to the virtual, informational, and digital domains. The increasingly digitalized nature of human activities and social life necessitates the recognition and protection of new rights, such as the right to digital identity, representation, and regulation of digital existence (Song et al., 2022: 29).

Among the most debated fourth-generation rights is the right to surrogacy. The regulation and enforcement of this right remains contested not only among scholars but also among legal experts and medical practitioners. Typically, the rights of biological parents are prioritized over those of the genetic mother, which often results in legal complications and human rights violations. While many academics and practitioners oppose the codification of this right, the primary argument for its legalization lies in providing infertile couples the opportunity to have children. The World Health Organization (WHO) has acknowledged the necessity of addressing this issue, noting that approximately 5% of the global population is unable to conceive due to

genetic, anatomical, immunological, or other medical reasons (Perepolki et al., 2021).

In addition to medical and bioethical rights, so-called "virtual rights" also belong to the fourth generation. The realities of globalization demand the establishment and institutionalization of new rights, most notably the right to internet access, which should be guaranteed and safeguarded for all. In contemporary society, most employment opportunities rely on internet connectivity and technology. Therefore, the absence of legal regulation in this field exacerbates inequality, undermines the protection of individuals' rights, and places many people at a disadvantage. Numerous human rights organizations have documented violations of the right to internet access, particularly in countries such as Pakistan, Ethiopia, and Algeria (Woodroofe, 2020).

4. Intersection of Fourth-Generation Rights with the Three Traditional Generations of Human Rights

With the emergence of fourth-generation human rights, justified by the technological revolution, a key question arises: what is the relationship between the first three generations and the fourth generation? Historically, human rights have been anchored to values that function as self-evident principles, allowing them to be decomposed into secondary or derivative values. The challenge concerning fourth-generation rights lies in identifying a starting point that is not overly influenced by rapid technological and scientific advances. In other words, it is necessary to identify a value that performs the functions that liberty, equality, and solidarity provided to the first three generations, respectively, and then examine how these interact with the fourth generation. Unlike the value of "dignity," which is frequently invoked in relation to scientific and technical issues, "identity" allows for the establishment of more objective parameters for evaluating violations (Baroni, 2024: 5–7).

a) Artificial Intelligence and the Right to Personal Liberty

The right to personal liberty is one of the most fundamental human rights, relating to the physical movement of individuals within a defined geographic space. Undoubtedly, the right to personal liberty is an essential and inherent entitlement that every individual should enjoy (Olomojobi, 2017).

The development of AI, particularly through software designed to assess risk and predict potential criminal activity at specific locations or by specific individuals, has expanded its role within the criminal justice systems of many countries. Predictive policing algorithms inform law enforcement deployment by estimating areas of higher crime probability (Chammah & Hansen, 2016).

While this unprecedented growth brings clear benefits, it equally poses the risk of interfering with personal liberty. A subset of algorithmic tools, known as risk assessment tools, are designed to predict the likelihood of future misconduct by defendants. These predictions inform high-stakes judicial decisions, such as pre-trial detention, raising ethical concerns about leaving critical decisions solely to machines (Jeff et al., 2016).

b) Artificial Intelligence and the Right to Privacy

The right to privacy, rooted in various legal traditions, seeks to limit both state and private actions that threaten individuals' private lives. The International Covenant on Civil and Political Rights (ICCPR) recognizes the right to privacy in personal affairs. As AI technology advances, privacy rights have become increasingly contested. Threats to privacy manifest in modern tools such as CCTV, smartphones, and other digital devices (Fowowe, 2021).

c) Artificial Intelligence and the Right to Freedom of Expression

AI has enhanced and expanded traditional internet content management practices, providing sophisticated tools for content personalization and moderation at a scale beyond traditional media (European Commission, 21 October 2021). AI enables individuals globally to better express themselves. Social media applications, in particular, have facilitated personal expression, but they have also opened the door to numerous ethical and criminal concerns, which have become significant challenges in today's world. These include cyber fraud, cyberbullying, and an increased incidence of suicide due to negative peer pressure (United Nations General Assembly, 2021).

d) Impacts of Artificial Intelligence on Economic, Social, and Cultural Rights

Economic, social, and cultural rights encompass workplace conditions, social security, family life, participation in cultural life, and access to housing, food, water, healthcare, and education. They also include the right to fair and equal wages (Feldstein, 2019:16). AI can assist in monitoring the implementation of these rights. Workers who maintain records or conduct their activities online can refer to these digital systems as evidence to claim their rights. Notably, in many countries, citizens' social security is administered digitally, creating an efficient and effective system. These examples illustrate the significant influence of AI on economic, social, and cultural rights (Jeremy & Mark, 2017: 33).

5. Challenges and Opportunities of Artificial Intelligence for Human Dignity

The pervasive and comprehensive nature of artificial intelligence (AI) has made its application nearly universal across vital areas of

life. The advancement of AI's cognitive capabilities has transformed human lifestyles (Cataleta & Anna, 2020: 47).

Latanro explicitly states that by creating a bridge between AI and human rights, what is at stake is human dignity (European Union Agency for Fundamental Rights, 2020).

Although human rights violations by AI have occurred, alignment with AI perspectives has undeniably facilitated the efficiency of various monitoring mechanisms (Livingston & Risse, 2019: 141). With the proliferation of multifunctional mobile phones and other imaging platforms, including hundreds of high-resolution imaging satellites, near-ubiquitous surveillance has emerged. This development can be viewed in two ways: positively, AI can enhance national security; negatively, it represents an intrusion into individuals' privacy (Risse, 2019: 148).

5.1 Challenges

One of the most disruptive innovations of the present century is the rise and development of AI and robotics. This section seeks to highlight the perspectives and identify inherent issues regarding AI and robotics in relation to human dignity. Despite substantial evidence supporting the benefits of AI and robotics, researchers, industry experts, academics, and the public hold divergent views on their future. While some emphasize the unlimited potential and significant benefits of these innovations, others are concerned about the imminent "rise of the machines," its impact on human dignity, and potential threats to humanity.

Severe and Structural Discrimination

AI can lead to systematic or structural discrimination affecting entire populations. When discrimination is applied based on race, ethnicity, gender, physical or mental disabilities, or other protected characteristics under legal

frameworks such as Article 3 of the German Constitution, in areas with strong dependence on AI-driven products or services, or affecting vulnerable populations, it may constitute a violation of human dignity. These groups are particularly recognized as deserving protection under constitutional law. Severe discrimination caused by AI undermines their dignity, as these individuals are systematically devalued, especially regarding life-impacting decisions (e.g., welfare recipients, refugees, or migrants) where their moral worth may not be equated with that of other citizens (Teo, 2023: 17).

Generalization and Lack of Individual Justice

AI and its algorithmic distinctions often adopt forms of so-called statistical discrimination. Rather than performing meticulous case-by-case evaluations to determine an individual's real capabilities (e.g., the actual ability to pilot an aircraft), AI relies on readily available statistical information. While intended to overcome information deficits, this form of discrimination and statistical generalization—whether by human decision-makers or algorithmically—raises ethical concerns, as group-level information is applied to individuals, acting as pseudo-stereotyping or bias in decision-making (Gandy, 2010: 34).

Individual justice is not guaranteed because specific personal contexts and circumstances are overlooked (Britz, 2008).

Failure to Treat Individuals as Respected Human Beings with Defined Identities

Unlike individualized decision-making processes that treat people fairly, AI often treats individuals as information objects rather than as persons with a defined and respected identity. The ethical question arises: when is it morally problematic to treat people not as individuals but merely as members of a group (Beeghly, 2018:14). This aligns with Kantian

ethical considerations, which demand respect for humans and prohibit instrumentalization (Dillon, 2022: 2). Therefore, every individual has a duty to practically acknowledge the human dignity of every other person, implying an obligation to respect others' dignity. Respecting another person's dignity (and one's own) entails treating others always as an end in themselves, not merely as a means (Orwat, 2024: 7).

In summary, these arguments underscore the importance of establishing requirements for human treatment, as well as compensatory mechanisms to prevent individuals from being treated solely as objects. Protecting human dignity also involves safeguarding the freedom to choose goals and making informed decisions, allowing individuals to act autonomously.

Automated Decision-Making

Automated decision-making based on generalizations is ethically problematic, as no additional individualized information is processed. When individuals are assigned solely to algorithmic categories, scores, or ranks derived from AI systems, they are no longer treated as real persons. Such decisions strip individuals of their autonomy, undermining their dignity, and reduce them to objects defined by a limited set of features rather than full human beings (Kaminski, 2019: 1541-1545). One justification for regulating automated decisionmaking is the protection of human dignity, as reflected in Article 22 of the EU General Data Protection Regulation (GDPR, 2016) and Article 15 of the Data Protection Directive, which emphasize that ignoring individual autonomy reduces a person to a mere target of computational operations (Scholz, 2019: 3).

5.2 Opportunities

Enhancing Individual Autonomy

One of the most significant ways AI impacts human values is through its influence on autonomy. Autonomy refers to the ability to make decisions and take actions independently, without external influence or coercion. AI has the potential to enhance individual autonomy by providing more information and broader choices. For example, AI-powered personal assistants can offer relevant information and recommendations to support better decision-making. Similarly, smart vehicles can free individuals from the task of driving, giving them greater control over their time (Novak, Apr. 17, 2023).

Enhancing Individual Justice, Fairness, and Reducing Discrimination

Another critical area where AI can have a positive impact is justice. Fairness entails treating everyone equally and without bias. AI has the capacity to enhance fairness by reducing human bias and increasing objectivity. For instance, AI algorithms can be used to eliminate bias in hiring and promotion decisions or to ensure fair treatment within the criminal justice system. However, if AI is not properly designed and implemented, it can perpetuate or even amplify bias. AI algorithms can reflect and reinforce the prejudices of their creators as well as the biases inherent in training datasets, potentially leading to discriminatory outcomes that exacerbate existing inequalities (Novak, Apr. 17, 2023).

Strengthening and Protecting Privacy

Many AI systems and applications have a profound impact on the right to privacy. Current privacy debates around AI largely focus on data privacy and the excessive processing of personal data. Personal and non-personal data are not only used to train AI systems but also for profiling and scoring individuals for various purposes, such as predictive policing, insurance underwriting, social benefit allocation, and predicting performance in

employment and dismissal. Moreover, these processes involve massive amounts of data points on our daily lives, which can be used not only for targeted advertising but also to influence, manipulate, or steer individuals toward specific information, thereby affecting their decision-making and moral behavior (Muller, 2020: 7–8).

Improving Healthcare and Education

AI brings substantial potential benefits to healthcare. Perhaps most importantly, AI technologies can significantly enhance healthy life expectancy across diverse populations. AI can deliver high-quality healthcare to regions and populations that have limited access and can play a critical role in providing specialized education to students with unique learning needs that traditional teaching methods cannot address (Brodowicz, 2024: 122). In recent years, AI technologies have attracted the attention of both academics and industry stakeholders (Kaur, 2021).

AI proves especially valuable in addressing content accessibility and teacher shortages, thus enabling seamless and stress-free learning (Ahmad, Rahmat, Mubarik, Alam, & Hyder, 2021: 11). The most significant contribution of AI in education lies in its global accessibility: with access to the internet and relevant technologies, students can benefit from educational services worldwide.

Conclusion

The risks posed by artificial intelligence (AI) to human rights may be directly linked to the nature and design of AI systems, which can be defined as structural risks. AI applications, when flawed, insecure, or non-transparent, can jeopardize the protection of human rights. From this perspective, design-related risks are inherently associated with errors occurring throughout the AI development process.

Various factors contribute to these errors: datasets may be incomplete, inaccurate, or biased, and the learning process—especially in deep learning applications—may not function as intended, leading to erroneous outcomes.

For instance, when social media posts are incorrectly removed, freedom of expression is affected. When an applicant is rejected due to inaccurate results, the right to work may be violated. If inaccuracies result in unfair decisions, the right to privacy can be compromised. The widespread use of AI in surveillance and personal data analysis introduces significant risks to privacy. As AI systems become more complex, the line between public and private life blurs, and personal information is scrutinized and commodified at unprecedented levels. This intrusion into privacy can have profound implications.

At the same time, AI offers considerable benefits for addressing humanity's most pressing challenges. However, while facilitating remarkable social progress, it also brings risks such as job displacement, inequality, and loss of privacy. AI systems may further challenge human resilience and adaptability by reinforcing feedback loops that push beliefs and behaviors toward a more homogenized society.

This study asserts that, although the development and advancement of AI cannot and should not be halted—given the extraordinary improvements it has brought to everyday human life, as observed throughout this paper—there is an urgent need to design and implement an appropriate regulatory framework. This framework should aim to: "Guide the further development and deployment of AI and robotics systems with the explicit goal of safeguarding human existence and respecting human dignity."

Without a comprehensive and globally binding legal framework for AI, there is a real risk that AI itself could begin to dictate rules for humanity.

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