

Human Rights Dilemma and International Rule of Law in the Age of Digital Intelligence

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Abstract

The digital intelligence era is an intelligent era represented by digital technology. In this era, human attributes, lifestyles, and the embodiment of rights have shown new characteristics. The impact of the digital intelligence era on human rights is a double-edged sword: on the one hand, digital technology, artificial intelligence, and so on greatly liberate human labor productivity, effectively protecting people's rights to subsistence, health, and development; on the other hand, it also brings great threats and challenges to human rights. Anthropocentrism is threatened, the boundaries of human beings are broken, and people's freedom, equality, privacy, labor, intellectual property, environmental and ecological rights are threatened. In the face of the digital intelligence era, development is the only way to break through. In the United Nations Declaration on the Right to Development, the right to development is defined as an inalienable right of human beings. Only in development can all human rights be fully realized.

Keywords: Digital Intelligence, Big Data, Artificial Intelligence, Human Rights, Development.

Introduction

An Overview of Human Rights in the Age of Digital Intelligence

Mankind welcomes the era of digital intelligence. The age of digital intelligence is a concept composed of two keywords: digitalization and intelligentization. Based on digitalization, it combines related technologies to realize the deep integration and application of data and intelligent technologies, to promote the comprehensive intelligence of society and economy. The development of the age of digital intelligence has three levels, namely, digital, intelligence, and governance. Among them, digital intelligence can be understood as "digital + intelligence", which is a higher demand on the basis of digitalization. The era of digital intelligence is also known as the "ABC century"^①. The development of the digital intelligence era is inseparable from the support of key elements such as algorithms (artificial intelligence), computing power (quantum computing) and

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corresponding infrastructure (such as 5G). With the in-depth development of digital intelligence, the natural nature of human beings will also change, and technologies such as brain-computer interface have made it possible to develop the digitization and electronicization of the human brain, which may lead to the emergence of "digital humans"(Baidu Library, 2024).

Since mankind has entered into the era of digital intelligence, people not only have been creating and utilizing every kinds of high technologies, but also have more and more relied on them, and even cannot live without high technologies. Take cyberspace as an example, it has become the fifth place for human activities after land, sea, sky and space; and data has become a new factor of production. The era of digital intelligence has outstanding advantages such as intelligence, flexibility, efficiency and interoperability, etc., which can liberate human labor productivity to some certain extent, promote human rational progress, and effectively protect people's rights to survival, health and development (Zhang, 2016).

The core and essence of human rights are "human rights as human beings themselves" (Bai, 2023). Since the western bourgeois revolution, the human rights movement has gone through three periods of development, which with the right to freedom, the right to survival and the right to development as the standard and theme respectively. Compared with the previous three periods, after entering the digital age, people's natural and social attributes have further advanced on the original basis. The rapid development of digital intelligence technology has fundamentally affected and even changed the nature of human beings: people are endowed with more digital identities, the exercise of rights is more dependent on digital technology, social activities are gradually advanced to the level of digital intelligence, and the fundamental core interests are gradually closely linked with digital intelligence technology and even directly reflected in the form of digital intelligence. People gradually from "physical person" to "information person" transition (Li & Cui, 2005), the body attached more and more obvious digital attributes has become an objective fact (Li, 2012). Since the era of digital intelligence, many rights have emerged from nothing, and human rights have made obvious progress.

I. The Plight of Human Rights in the Age of Digital Intelligence

1. Macro Human Rights

(a) Anthropocentrism is Threatened

The first feature that distinguishes man from animals and other objects is that his brain has the ability to think and to innovate independently to acquire knowledge. Products in the era of digital intelligence can also learn and improve

themselves through technology upgrading and algorithm training, further the existence of algorithm black box makes it impossible for humans to fully understand its mechanism. One of the results is that anthropocentrism is under threat. As far as weak artificial intelligence is concerned, the academic community generally believes that it is a tool for human beings to create and enhance productivity, and it does not have an independent personality, it is still a "thing" legally, and human beings can enjoy property rights (intellectual property rights) for them. But for some strong artificial intelligence, it may have completely independent or certain extent of human rights (personality), so as to obtain personality rights, marriage rights, reputation rights, inheritance rights, intellectual property rights and other rights, thus human subject status (anthropocentrism) will be threatened. In the case of chat GPT, does the content it generates have independent intellectual property rights? The academic community has two thinking way of answer this question: one is to give the intellectual property rights to the creators and inventors of strong AI machines (such as Open AI), the research and development company behind chat GPT, or employees. In this way, the intellectual property ultimately falls to the natural person. The second thinking way is to break the demands of the protection subject in intellectual property law, and bring non-human subjects such as artificial intelligence into the scope of intellectual property protection, so as to directly give artificial intelligence intellectual property rights and meanwhile make it assuming relevant responsibilities. If the second path is adopted, anthropocentrism will be directly impacted (Xu, 2024).

(b) The Boundary of Human Morality has been Breached

Although chat GPT can transform input into seemingly logical output results according to algorithms and models, it has no sense of right and wrong, ethical awareness, or moral guidance. It lacks a stand, it does so when the algorithm recommends it and the system prompts it to do so, it does not make moral choices, and it is unable to consider values such as justice, equality, efficiency, and order. The moral philosopher Harry Frankfurt, in his book *On Nonsense*, argues that the essence of nonsense is not that he is wrong, but that it is false (Harry Frankfurt, 2008). Generative AI may choose error over truth in ignorance, in other words, if humans listen to chat GPT's output, generative AI reconstructs human moral sources and moral purposes, shaking up the legal and ethical order of modern society.

Specific Human Rights

(a) The right to Freedom

According to Article 19 of the UDHR^② (Hua Guoyu, 2015), all individuals possess the right to express their opinions freely. This encompasses the liberty to

form opinions without hindrance, the ability to access and share information and ideas using any means of communication, and without being restricted by national boundaries. The freedom of speech is not only a fundamental human right but also a significant indicator of the advancement of a contemporary democratic society. However, because the online content review path of artificial intelligence includes pre-review, post-review, etc., and because artificial intelligence online review lacks professional enforcement mechanisms and legal mechanisms, lacks of transparency and interpretability, artificial intelligence may have a negative impact on freedom of speech, and will directly or indirectly affect the user's freedom of expression. In other words, algorithmic patterns such as the precise push of artificial intelligence may affect human autonomous decision-making and affect human freedom.

(b) Right to Equality

The ICESCR^③, in its provisions from Article 2 to 5, establishes the overall responsibilities of state members. These obligations include adhering to the principle of non-discrimination and ensuring equal rights for both men and women. However, digital intelligence technology may perpetuate discrimination and prejudice. Because the algorithm itself can be trained according to the existing discrimination and prejudice data; also because the frequency of data use is accelerated and the number of scenarios is increased, the incidence of discrimination is increased; further, the impact on the equality rights that human beings should enjoy is not limited to gender, hobbies and race. This is determined by the endogenous characteristics of the age of digital intelligence. On the one hand, there is a lack of transparency in corporate decisions and software design; and on the other hand, this discrimination is exacerbated by the existence of algorithmic black boxes. An emerging and growing algorithmic divide could have political, social, economic, cultural, and educational implications.

(c) Right to Privacy

In the ICCP^④, Article 17 explicitly prohibits any arbitrary or unlawful intrusion into an individual's private life, family, home, or communication. Moreover, it forbids unjust assaults on the reputation and honor of others. The covenant guarantees that everyone is entitled to legal protection against such interference and attacks (Yang, 2003). And digital intelligence technology may make human privacy more vulnerable. In the age of digital intelligence, personal identity information, location information, search history, social media activity and other information may be leaked or misused. If the algorithm is replaced, attacked or secretly propagated in the process of feature extraction, information processing, loop iteration, etc., human privacy may be threatened.

(d) Right to Work

According to Article 23 of the UDHR, all individuals have the right to work and choose their profession freely. They are entitled to fair and favorable working conditions and protection against unemployment. The digital intelligence age is changing the way that companies operate, value created, and compete with each other. Gradually replacing human beings in the fields of text induction, code development, image generation, intelligent customer service, etc., thus making these human workers turn to lower income or even unemployment. While bioartificial intelligence has increased productivity, improved human well-being, and liberated some people, this part of the population is excluded from the labor market, and even the possibility of re-employment is reduced, or deprived of employment. Then human beings must well balance the competition between man and machine. Besides, factors such as capital involvement, platform operation, and enterprise competition may exacerbate unemployment in some industries. In addition, the disruption is unequal, and low-wage workers, women, and young people are likely to be disproportionately affected.

(e) Intellectual Property Rights

Article 15 of the ICESCR guarantees individuals the right to enjoy culture and reap the advantages of scientific progress (Hua, 2015), and some scholars believe that intellectual property is also a specific human right. But the generative AI of the digital age is based on the analysis of vast amounts of data from human samples, whose ownership should not necessarily be considered public data. If the data is considered to be owned by individuals and platforms, artificial intelligence may face the possibility of intellectual property rights infringement when analyzing the sample data. In other words, is there intellectual theft in products of the digital age? Is it using material protected by intellectual property rights without permission? Such infringement should be taken seriously.

(f) Environmental Rights and Ecological Rights

In 1972, the United Nations adopted the Declaration on the Human Environment, which upholds the basic right of all people to live in a dignified and healthy environment with equal and sufficient living conditions. Additionally, it emphasizes the crucial duty to safeguard and enhance the human environment for both current and future generations (Mark Kinzer, 2023). The digital technology and artificial intelligence have had many positive impacts on human environmental rights and ecological rights, including: initially, rigorous monitoring and analysis are essential. The utilization of digital technology and artificial intelligence can assist in monitoring and analyzing environmental conditions, such as air quality monitoring and water quality monitoring. This helps to promptly identify

environmental issues and take appropriate measures, improving the efficiency of ecological protection. Second, risk warning and emergency response. The application of artificial intelligence in environmental monitoring, such as predicting natural disasters and monitoring climate change, can provide early warnings for related risks and support emergency responses, helping to reduce the damage of environmental disasters to ecosystems. Third, emerging environmental protection technologies: The development of digital technology and artificial intelligence has facilitated the emergence of a series of emerging environmental protection technologies, such as smart waste classification systems and intelligent energy-saving devices, which help reduce resource consumption and lower pollution emissions. Fourth, support for sustainable development decision-making: The application of artificial intelligence in simulating and predicting environmental changes, evaluating policy effectiveness, etc., provides more scientific support for formulating sustainable development strategies and policies, contributing to achieving a balance between environmental rights and ecological rights. However, the impact of digital technology and artificial intelligence on human environmental rights and ecological rights is dual-sided, bringing with it both prospects and difficulties. It is important to ensure that environmental and ecological rights and interests are fully protected and respected while driving technological innovation. Given artificial intelligence and digital intelligence technologies require energy to drive, and therefore may have environmental and ecological impacts, which in turn pose threats in terms of carbon footprint, climate change, environmental change, environmental degradation and ecosystem degradation, and increase the unsustainable extraction, use and conversion of natural resources.

The Reasons for the Plight of Human Rights in the Age of Digital Intelligence

1. The Essential Characteristics of Digital Intelligence Technology

Digital intelligence technology has the characteristics of big data processing ability, automation and intelligence, real-time and fast, adaptive and iterative, innovation and change drive, etc. These characteristics make human life better in the digital intelligence era. But its potential shortcomings such as unexplainability, data dependence, difficulty to control, prejudice and immorality also may bring some human rights problems. It may be difficult for humans to explain the decision-making or reasoning process of digital intelligence technology, and the complexity and adaptability of digital intelligence technology makes its behavior and effects difficult to be fully controlled. In addition, the performance and effectiveness of digital intelligence technology depends heavily on the data used. If the selected data base is incomplete or inaccurate, then digital technology may

reflect or amplify these issues and produce unfair, erroneous, biased or discriminatory results (Li, 2023).

2. The Wide Penetration of Digital Intelligence Technology

Using China as a case study, by December 2022, the Chinese netizen population had exceeded 1.067 billion, with an Internet penetration rate of 75.6% and nearly all netizens accessing the Internet via mobile phones, reaching 99.8%. Digital intelligence technology has been widely penetrated and widely accepted by the Chinese people. On this basis, digital intelligence technology has become an indispensable part of people's lives. Certain scholars argue that conforming to the demands of digital technology is no longer just a lifestyle choice, but a necessity. The criteria and restrictions imposed by digital technology have become indispensable for individuals' existence and progress, exerting a significant influence on their survival and advancement. Essentially, the pervasive integration of digital intelligence technology and society's widespread embrace of it create fertile ground for human rights challenges in the digital intelligence era (Shawn Du Bravac, 2015).

The Protection of Human Rights under International Law in the Age of Digital Intelligence

a. The Ultimate Goal of Development

The comprehensive advancement of individuals stands as the ultimate objective of human societal progress, with the protection of human rights serving as a vital precondition for achieving this holistic development. While human rights face various challenges in the digital intelligence era, technological advancements should serve as a catalyst for societal progress rather than an obstacle or impediment. The UNDRD⁵ designates the right to development as an inherent entitlement that enables the fulfillment of all individuals' human rights. Confronted with threats to human rights in the age of digital intelligence, only through development can the underlying causes of conflicts be eradicated, safeguarding individuals' fundamental rights and addressing their aspirations for a better life (Wang, 1999)?

Development plays a crucial role in safeguarding human rights, as it is only through comprehensive development that people's basic needs can be met and individual dignity can be respected. The rapid advancement of digital technology has brought about tremendous societal changes, but it has also presented new challenges to human rights. Issues such as data privacy, information security, and the digital divide are increasingly prominent, requiring collective efforts from governments, businesses, and individuals to address them. Only by promoting inclusive and sustainable development can we achieve comprehensive protection of

human rights. This includes providing educational opportunities, promoting employment, eradicating poverty and inequality, and ensuring social justice and the rule of law. The digital age calls for increased cooperation and coordination to ensure that new technologies benefit all of humanity, narrow the digital divide, and ensure that everyone can share in the benefits of technological advancement. In the digital era, it is essential to fully recognize the close relationship between development and human rights. By promoting sustainable development, we can achieve comprehensive protection of human rights. Only when every individual can share in the fruits of development can we build a better and more equitable society for the future (Liu, 2022).

b. The Protection Based on UDHR

The United Nations UDHR, although of a declarative nature and not directly binding, establishes the protection of individual privacy rights and information freedom, and provides guidance for subsequent human rights protection work in the age of digital intelligence.

In today's digital era, characterized by technological progress posing fresh challenges to human rights, the core tenets of the UDHR retain their significance and validity. Preserving the rights to personal privacy becomes imperative in a landscape where personal information is progressively gathered, utilized, and disseminated. The Universal Declaration underscores the essential nature of privacy as a basic human entitlement, stressing the importance of shielding it from undue intrusion. This principle should serve as a guiding beacon for governments, institutions, and individuals as they work towards safeguarding privacy and thwarting potential digital infringements (Meng & Yan, 2024).

Furthermore, the Universal Declaration also affirms the indispensable role of freedom of information in enabling individuals to exercise their rights and participate fully in society. In the digital intelligence era, where access to information is facilitated by advanced technologies, it becomes all the more important to ensure that everyone can freely access and receive information without undue restrictions. This requires governments to enact and enforce laws that promote freedom of information, while also fostering an environment that encourages transparency and accountability (Ma, 2020).

While the Universal Declaration does not provide detailed guidelines on specific challenges presented by the digital intelligence era, its principles serve as a foundation for shaping policies and practices related to human rights protection in this rapidly evolving landscape. With the ongoing progress of technology, it is crucial for governments, organizations, and individuals to adapt and implement the standards outlined in the Universal Declaration to tackle emerging challenges

concerning digital rights, cyber security, data privacy, and ethical deployment of artificial intelligence.

In conclusion, the UDHR sets a strong foundation for the protection of individual privacy rights and freedom of information. In the face of the evolving digital intelligence era, it remains vital to uphold these principles and adapt them to effectively address emerging challenges and ensure the full realization of human rights in the digital age.

c. The Protection Based on the United Nations ICESCR and the ICCP

The United Nations' International Covenant on Economic, Social, and Cultural Rights and the ICCP offer clear delineations of personal liberties, privacy, freedom of expression, and various other rights, forming the bedrock for safeguarding human rights in the digital era. These global agreements underscore individuals' entitlements within economic, societal, and cultural domains, alongside civil and political realms, encompassing liberties such as freedom of association, religion, and speech. Amidst the digital landscape, these rights encounter novel trials and prospects. For example, in cyberspace, individuals' freedom of speech may be subject to censorship and restrictions, privacy may be infringed, and the use of artificial intelligence and big data analysis may impact civil rights and obligations (Qin & Chen. 2006).

In order to ensure the protection of human rights, the global community must engage in thoughtful consideration and proactive measures within established frameworks. While the International Covenant on Economic, Social, and Cultural Rights and the ICCP establish essential guidelines for upholding human rights in the digital era, they also necessitate adjustments to address the complexities presented by innovative technologies and the digital context. For instance, how to ensure that personal privacy is respected in applications of big data and artificial intelligence, and how to safeguard freedom of speech and information flow in cyberspace, all of these warrant further exploration and the formulation of corresponding policies and practical measures (Zeng, 2012).

d. The Protection Based on International Treaties

The "Recommendations on the Ethics of Artificial Intelligence" put forward a series of principles and suggestions for protecting human rights in the digital age. It advocates fairness and non-discrimination, emphasizing the avoidance of discrimination in the application of artificial intelligence, and ensuring that all individuals are treated fairly. Transparency and interpretability are emphasized, promoting the transparency of decision-making processes in artificial

intelligence systems so that users can understand why and how a particular decision is made, thereby increasing trust. Autonomy and controllability are emphasized: valuing the individual's autonomy to make decisions, ensuring that humans have control in artificial intelligence systems, and being able to understand and intervene in the operation of the system(UNESCO: Recommendation on Ethical Issues in Artificial Intelligence,2022).

These principles aim to ensure effective protection of human rights in the digital age, guiding countries and relevant institutions to respect individual rights and values when developing and using artificial intelligence technologies, and avoiding potential negative impacts.

e. The Protection Based on International Organizations and Regional Legislation

Some international organization guidelines and regional legislation are also showing a vigorous development trend. The Personal Data Protection Guidelines of the OECD^⑥ provides principles and guidance for personal data protection, including limitations on the purpose of data processing, transparency of information, and the rights of data subjects. GDPR^⑦ in Europe is an important regulation formulated by the European Union for personal data protection, which clarifies the principles of informed consent of data subjects, restrictions on data usage purposes, data security requirements, and stipulates penalties for violating regulations.

In addition, in regional contexts, some countries have also enacted similar data protection laws. For example, Brazil's "Inter-American Human Rights Convention" establishes principles and obligations for the protection of personal information; Japan's "Personal Information Protection Law" aims to ensure the reasonable and appropriate handling of personal information; Canada's PIPEDA^⑧ sets out comprehensive guidelines and rules concerning the gathering, utilization, and disclosure of individuals' personal information. These guidelines from international organizations and regional legislation demonstrate that governments and international organizations worldwide are increasingly emphasizing the protection of human rights in the digital age. They provide clear guidance and standards for personal data protection, while underscoring the importance of individual rights in the digital era.

Problems That International Law Facing In Protecting Human Rights In The Age Of Digital Intelligence

Current international law still faces some problems in protecting human rights in the age digital intelligence.

a. The Lack of Global Standards

Although human rights are universally applicable, there is currently a lack of globally unified standards to address the human rights challenges of the digital age. Different countries have formulated different laws and policies regarding data privacy, information security, and other issues, resulting in legal differences and inconsistencies, further making cross-border data flow and compliance complex and lacking consensus (Ding, 2018).

b. The Inadequacies of Personal Data Protection

So far, the personal data protection is rather inadequate, especially in some developing countries. Many international and national laws still have some shortcomings in the protection of personal data. Some laws do not have clear restrictions on the collection and use of personal data by commercial and government agencies, and the risk of personal data abuse and leakage still exists. At the same time, there is a lack of clear legal frameworks when dealing with emerging technologies such as artificial intelligence and big data (Cao, Dong & Zhou, 2016).

c. Conflicts between National Security and Privacy Protection

Thirdly, there is a conflict between national security and privacy protection. In the era of digital intelligence, the security and privacy of personal data have become important concerns. Some countries or organizations may take measures that infringe on individual privacy rights to ensure national security or combat crime. This has raised an issue of how to balance between personal privacy and national security, and a reasonable solution needs to be found.

d. algorithmic Discrimination

Fourthly, there is algorithmic discrimination. In the era of digital intelligence, algorithms play an important role in intelligent systems and decision-making. However, algorithms may have biases and discrimination, resulting in unequal treatment for certain groups. At present, there are no clear provisions in international law regarding algorithmic discrimination and human rights protection, and further research and resolution are needed.

e. The Existence of A Digital Divide

The fifth is the existence of a digital divide. Despite the considerable popularity of digital technology worldwide, hundreds of millions of people still face

the digital divide, which is the unequal distribution of information and technology. A lack of appropriate access and participation opportunities, and certain communities are unable to fully enjoy the benefits of the digital age.

Conclusion

Facing the challenges brought by the digital intelligence era, China also put forward its global development initiative for the first time at the 76th United Nations General Assembly. The main content of the initiative is "six adherences", namely, giving priority to development, adhering to the people-centered, inclusive, innovation-driven, harmonious coexistence between human and nature, and action-oriented. This could be a contemporary interpretation of the UNDRD, and the solution to the human rights crisis in the digital intelligence era. This major initiative meets the real needs of the people of the world for peace, development, fairness, justice and win-win cooperation. As soon as it was put forward, the United Nations and other international organizations and many countries responded to it. From the perspective of human rights protection, the Global Development Initiative is a new concept of human rights governance provided by China to the international community, and an important practice to promote the building of a community with a shared future for mankind.

China will benefit the establishment of the concept of digital human rights, build an AI industry model with Chinese characteristics, take human rights and dignity as the highest goal of AI technology development, and seek a balance between industrial development and human rights protection.

To address these issues, the international community needs to strengthen cooperation and dialogue, develop more targeted and adaptable international norms, frameworks, and mechanisms, and ensure comprehensive and effective protection of human rights in the digital age. At the same time, countries need to formulate and improve domestic laws and policies, balance the relationship between technological innovation and human rights values, and promote sustainable development of human rights protection in the digital age.

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Annotations

- ①ABC: where "A" stands for Artificial Intelligence, "B" stands for Big Data, and "C" stands for Cloud Computing.
- ②UDHR: Universal Declaration of Human Rights

- ③ICESCR: International Covenant on Economic, Social and Cultural Rights
- ④ICCPR: International Covenant on Civil and Political Rights
- ⑤UNDRD: UN Declaration on the Right to Development
- ⑥OECD: Organization for Economic Cooperation and Development
- ⑦GDPR: The General Data Protection Regulation
- ⑧PIPEDA: Personal Information Protection and Electronic Documents Act

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