**Human Rights:** **The Fourth generation of human rights theory: A General Outline of Digital Rights in the Digital Age**

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**Introduction:**

We generally call "negative rights" (i.e. rights to protect citizens' freedoms from infringement) the first generation of human rights, and we call "positive rights" (i.e. rights that require the state to take positive actions to achieve their realization) the second generation of human rights. After the 19th century, human rights gradually expanded from the political field to various fields such as economy, culture, and society. After the 1950s, with the development of the national liberation movement, the traditional concept of human rights was transcended, human rights developed from individual human rights to collective human rights, and added the right to national self-determination, the right to peace, the right to the environment and other contents.

“Third generation human rights” is still largely an unofficial term, which therefore encompasses a very wide range of rights, including: collective rights, the right to self-determination, the right to economic and social development, the right to a healthy environment, the right to natural resources, the right to communication, the right to share in cultural heritage, intergenerational equity and the right to sustainable development.

Due to the rapid development of the globalization trend, the widening gap between the rich and the poor, the intensification of ethnic and regional conflicts, the serious damage to the ecological environment, and the intensified competition for resources such as science and technology, energy, and information. Based on these factors, some people have proposed to include "peace, development, ecological environment, common inheritance of property, exchanges and humanitarian assistance, etc." in the third generation of human rights. **The Fourth generation of human rights will be discussed below.**

The fourth generation of human rights, for Chinese people, was first seen and heard by Professor Xu Xianming's assertion that the fourth generation of human rights is "harmony rights", which has caused widespread discussion in the academic community with mixed reviews. ①②

As to whether the right to harmony can become a "generation", there are academic disputes and ideological debates, which is understandable. In subsequent research, Professor Ma Changshan believed in his keynote speech at the first China Youth Forum on Human Rights that with the advent of the digital technology revolution, traditional human rights have their own problems and new human rights issues have also emerged in large numbers. At that time, although Professor Ma did not elaborate in detail, he attributed it to the fourth generation of human rights issues. [1] Later, with the inspiration of Professor Zhang Wenxian 's new era human rights jurisprudence that "without digital, there is no human rights" [2] , these academic insights resonated with my previous "human rights research in the era of artificial intelligence" [3] : digital human rights issues in the digital era can become a "generation".

In fact, the issue of digital human rights in the digital age has become a "generational" issue. There are many works in the West that promote the fourth generation of human rights in the digital age, and some data rights belonging to the fourth generation of human rights have been recognized in the law. The earliest claim of the fourth generation of human rights came from Robert B. Gelman , who proposed a "Declaration of Human Rights in Cyberspace" in 1997 based on the 1948 "Universal Declaration of Human Rights".

The Catalan Institute of Human Rights ( IDHC ) of Spain adopted the "Universal Declaration of Emerging Human Rights" ( DUDHE ) on the basis of the dialogue entitled "Human Rights: New Demands and New Commitments" held in Barcelona in 2004. The declaration is centered on democracy and includes a list of nearly fifty emerging human rights, including the right to drinking water and sanitation, the right to basic income, the right to continuous and inclusive education, etc., which promotes the understanding and debate of human rights. Since the global integration of the information society concept following the World Summit on the Information Society held in Geneva ( 2003) and Tunis (2005), the regulatory debate related to the Internet has also become increasingly important, with a series of public debates held that have a direct impact on the formulation of digital human rights policies and regulations. On June 1, 2011, the Joint Declaration on Freedom of Expression and the Internet was signed by the United Nations Rapporteur on Freedom of Expression. In 2014, the Council of Europe adopted the Human Rights Guidelines for Internet Users. In 2015, the World Economic Forum considered that digital rights are essentially human rights in the Internet age. For example, the right to online privacy and the right to freedom of expression are identified as extensions of the rights established in the Universal Declaration of Human Rights. On November 26, 2018, the University of Deusto in Spain proposed the Deusto Declaration on Human Rights in the Digital Environment, which identified the fourth generation of human rights in the digital environment, widely mentioned human rights in the digital age, and rights related to access and use of the Internet and other information and communication technologies. In 2021, the governments of Portugal and Spain successively announced digital human rights (rights) declarations with detailed lists of human rights.

The fourth generation of human rights is a new and little-known academic field for us, while the West has been paying attention to the fourth generation of human rights for more than 20 years, and the earliest attention was one year earlier than the founding of Google. When Google was founded 20 years ago, it proposed the "Fourth Generation Human Rights Declaration" which lists a detailed list of digital human rights. It is undeniable that there have been a lot of studies on individual emerging rights in the digital age in China, such as the right to be forgotten, the right to personal information, the right to algorithm interpretation, etc., but most of them are "single studies" of "scattered soldiers and braves", lacking a comprehensive "general outline study" that can summarize the main points, and also lacking the historical inheritance consideration of the "generation" on the timeline. In view of this, it is of theoretical significance to specifically place the fourth generation of human rights in the three generations of human rights genealogy and conduct a comprehensive "general outline study" on the new (emerging) rights in the digital age, and provide some reference for promoting the formulation of the Chinese version of the "Digital Human Rights Declaration".

1. Three generations of human rights genealogy

In 1972, in a speech at the International Institute of Human Rights in Strasbourg, France, Amadou-Mathar M'Bow, Director-General of UNESCO, proposed the first right of the third generation of human rights: the right to development. Later, French jurist Karel Vasak defined it with a broad theoretical concept system. At the 1979 International Institute of Human Rights Conference in Strasbourg, Karel Vasak introduced the concept of three generations of human rights. His inspiration came from the French flag, the blue, white and red colors and their symbolic meaning of "liberty, equality and fraternity". But he used this term at least as early as November 1977. In an article he wrote for the UNESCO Newsletter, he introduced the concept of three generations of human rights, arguing that the rights declared in the Universal Declaration of Human Rights include civil and political rights and economic, social and cultural rights. Due to changes in social forms, it is imperative to formulate what the Director-General of UNESCO calls "the third generation of human rights" . The first generation deals with “negative” rights, since respect for these rights requires the state to do nothing to interfere with individual freedoms and is roughly equivalent to civil and political rights. The second generation, on the other hand, requires the state to take positive action to guarantee most social, economic and cultural rights. The third generation of human rights that the international community has embarked on can be called “rights of solidarity ” .

These rights include the right to development, the right to a healthy and ecologically balanced environment, the right to peace, and ownership of the common heritage of mankind. Since these rights reflect a certain concept of community life, they can only be achieved through the joint efforts of each subject - individuals, the state, and other institutions such as public and private institutions. [4] Through Karel Vasak’s article, Amadou -Matal Mbo proposed a “third generation of human rights” that aims to re-emphasize the right to development, peace and a healthy environment.

Karel Vasak went on to invent the first and second generations of human rights to fit the third generation human rights framework advocated by Mbo. In short, Mbo invented the concept of “third generation human rights”, while Karel Vasak completed the three-generation human rights spectrum.

The three-generation human rights approach advocated by Karel Vasak is controversial, and the controversy mainly focuses on the following aspects.

First, the concept of human rights is not generational, nor is it continuous. Artificially distinguishing between human rights categories weakens the conceptual characteristics of human rights, which are indivisibility, universality and interdependence. In general, the concept of generation means the emergence of one generation and the extinction of another. In fact, the conceptual boundaries of human rights are permeable.

For example, freedom belongs to all generations, and freedom is permeable to citizens' political, economic, social and cultural rights, such as the existence of political freedom and economic freedom. Furthermore, the labels of first, second and third generations have the danger of statically defining human rights and marginalizing human rights. For example, the concept of first-generation human rights may give priority to civil and political rights, while other types such as economic, social and cultural rights may not be considered. Other types of rights such as economic, social and cultural rights tend to be marginalized. The relative importance or superiority of this human rights ranking cannot be empirically proven. Therefore, legal scholar Patrick Macklem criticized the use of generational concepts to split the concept of human rights, arguing that the analytical category of dividing human rights into generational concepts "fails to capture its legal nature and characteristics" and "fails to understand the commonalities of all human rights in international law." [5] 62

Secondly, human rights history is based on Europe, and has a strong Eurocentric color. The three generations of human rights exaggerate the influence of the European Enlightenment on contemporary human rights norms and ignore the historical background of the countries in which rights claims were made. The human rights development process of different countries is different, and it is problematic to use the historical development trajectory of European human rights as a model for non-Western countries. For example, it is difficult to explain the development trajectory of human rights in China with the three generations of human rights. If we analyze the development trajectory of human rights in China from a political dimension, it can be divided into the period of human rights policy renaming and declaration, the period of human rights legislative protection and construction, the period of human rights judicial protection and construction, and the period of human rights comprehensive protection and construction. [6] China's human rights policy has always put the protection of people's right to survival and development first. According to Karel Vasak's three generations of human rights, the right to survival is the second generation of human rights, and the right to development is the third generation of human rights. This is difficult to meet the historical (generational) replacement problem in the three generations of human rights. If the three generations of human rights are discussed on a global scale, it may ignore the historical background of the proposal, interpretation and debate of human rights. “The problem with the generational approach is that it perpetuates categorization of rights, not only by fixing historical categories but also by finding incompatible sources of philosophical inspiration in each generation.” [7] Indeed, according to ideological, geopolitical, and economic divisions, the first generation of human rights came from the West, the second generation from the socialist bloc, and the third generation from underdeveloped Third World countries. This clearly reflects three different and opposing conceptions of human rights, namely Western individualism, Eastern collectivism, and Third World family / community orientation, and more importantly, the division between three opposing political orientations or ideologies: liberalism, socialism, and communitarianism. [8]

Thirdly, the existing three-generation human rights paradigm fails to fully reflect the various forms of human rights violations and solutions in the contemporary world, as well as the common purpose of human rights. The generational description of human rights in international law fails to understand the fact that human rights in international law have a common purpose, namely to alleviate the injustices caused by the way international law grants the global political and legal order. [5] 62 It also fails to fully reflect the various forms of human rights violations and solutions in the contemporary world . For example, the problem of poverty involves a bundle of rights, not a simple generation of rights. There may be the first generation of unequal civil rights (based on race, class, gender, sexual orientation, etc.), the second generation of the right to survival, and the third generation of the right to development. In terms of solutions, there may be the "positive" poverty alleviation obligations of national governments, as well as the "negative" obligations of national governments - that is, they cannot impose unjust economic systems on the poor.

Some scholars have systematically criticized the three-generation human rights theory, arguing that "this theory is not only unhelpful and outdated, but also a false statement that undermines the complexity of history, excludes other geographical regions from the evolution of human rights, and helps instill a hierarchy of rights, thereby fostering analytical complacency and oversimplification." [9] A typical example is to simplify the Western human rights advocacy to "human rights start at the ballot box (police station)" and to simplify the Eastern human rights advocacy to "human rights start with having a full stomach (eating breakfast)", which undermines the overall conceptualization of human rights and the common purpose of human dignity with contextual sensitivity.

The criticism of the three generations of human rights seems to have completely criticized the generational approach, but typification almost inevitably always has defects of one kind or another. This does not mean that we can deny that the "generational approach" is an effort to typify rights, and it is a valuable typological framework for thinking about rights. If the generational approach has no value in the typification of human rights, there is no value in continuing to explore it.

Karel Vasak's three-generation human rights framework is concise and clear, but it is not elaborated in detail. It is necessary to elaborate on the content of the three generations of human rights that have been developed and improved in order to continue the discussion of the fourth generation of human rights.

The first generation of civil and political rights, sometimes referred to as "blue" rights, focused on those rights that affect individuals' free expression and participation in political life. These rights are generally related to "freedom" and are mainly derived from the two core ideas of the liberal constitutionalist tradition: individual freedom and protection of individuals from state infringement, advocating the protection of our rights as citizens against state power (the right to defense). These rights were originally set out in the French Declaration of the Rights of Man and of the Citizen in 1787. Later, civil rights were mainly set out in Articles 3 to 21 of the Universal Declaration of Human Rights, including the right to life, liberty and security, privacy, fair trial, equality, freedom from torture and inhuman treatment, freedom from slavery and forced labor, freedom of religion, freedom of speech, freedom of association and freedom of movement. Political rights are set out in Articles 19 to 21 of the Universal Declaration of Human Rights, as well as the International Covenant on Civil and Political Rights (Articles 18, 19, 21, 22 and 25), mainly including the right to guarantee individuals to participate in politics directly or indirectly through elected representatives. During the Cold War, civil and political rights became a priority for Western countries. Some Western countries rigidly equate these civil and political rights with the only foundation of a democratic country under the rule of law, and use them as the main criteria for the Cold War human rights contest and the division of human rights camps, which has had a profound impact on the development of the world's human rights differentiation (dividing between civil and political rights, economic, social and cultural rights).

The second generation of economic, social and cultural rights are mainly distributed in the International Covenant on Economic, Social and Cultural Rights ( 1966) and Articles 22 to 29 of the Universal Declaration of Human Rights. Among them, economic and social rights are listed in Articles 22 to 26 of the Universal Declaration of Human Rights. Economic rights mainly include the right to work, the right to freely choose or accept work, the right to fair wages, reasonable working hours and trade union rights. Social rights are listed in Articles 6 to 14 of the International Covenant on Economic, Social and Cultural Rights, mainly including the right to health, housing, food, social care and education. Cultural rights are mainly in Articles 27 and 28 of the Universal Declaration of Human Rights: the right to freely participate in community cultural life, the right to share scientific progress, and the right to protect the moral and material benefits generated by science. These rights involve how people live and work together and the basic necessities of life. They are based on the concept of "equality" and guarantee access to necessary social and economic products, services and opportunities. The reason for the emergence of these rights is the result of the universal concept of equality generated by humanism and socialist thought in the 19th century. Therefore, the second generation of economic, social and cultural rights are also called "red" rights. Economic, social and cultural rights require the state to take more positive actions (mainly the right to benefit) to provide or at least create conditions for obtaining these facilities that are considered essential to modern life. In other words, the government is required to fulfill its obligations to respect, promote and realize them, but the fulfillment of these obligations also depends on the availability of national resources. In general, the transition from the first generation of human rights to the second generation of human rights is a transition from political democracy to material democracy, from a democratic rule of law to a social rule of law. The reason for this transition is that the workers' movement and internationalist ideology have undoubtedly raised citizens' awareness of all needs, and people have new demands and new ideas about the meaning of dignified life. People realize that human dignity requires not only the minimum state intervention proposed by civil and political rights, but also the highest degree of positive action by the state of economic, social and cultural rights. Therefore, under the requirements of economic, social and cultural rights, the second generation of human rights puts forward a social state concept that guarantees the means of developing a decent life.

The third generation of collective human rights, environmental and development rights, belongs to a relatively new category, including the right to self-determination, the right to peace, the right to development, a healthy environment, cultural heritage, the rights of consumers, children and the elderly, and the right to protection from genetic manipulation. These rights are mainly the product of the rise and fall of nation-states in the second half of the 20th century, and have been supported by the Third World. They are closely related to the rise of nationalism in the Third World and the realization of the existing international order in the developing countries. The third generation of human rights, also known as solidarity rights, such as rights to peace, environment or protection from genetic manipulation, are collective in nature, related to the value of "fraternity", affect all lives, and therefore require global cooperation to achieve. However, there is still a lot of controversy about the third generation of human rights, which has caused the term "third generation of human rights" to remain largely unofficial, just like the title of "green" rights. In fact, in addition to the right to self-determination, the third generation of human rights that has so far enjoyed the status of official human rights is the right to development. The official status of this right lies in the fact that the Vienna Declaration confirmed the right to development as a collective right and an individual right, and individuals can be regarded as the main subjects of development. The third generation of human rights is different from the first and second generations of human rights in that the subject becomes a group or collective (against international powers and the solidarity of human cooperation), rather than against citizens of the country (first generation of human rights) and individuals in front of society (second generation of human rights). As expressed in many progressive international law documents, including the Declaration of the United Nations Conference on the Human Environment (Stockholm Declaration) in 1972, the Rio Declaration on Environment and Development in 1992 and other soft laws, the third generation of human rights transcends civil and social rights confined to the borders of a country, is consistent with globalization, responds to the needs of human society and the earth, advocates the right to peace and a healthy natural environment for all people on the earth, and takes solidarity as a basic value. In this sense, the third generation of human rights has the characteristics of protecting the environment, responsible consumption, and ending discrimination against minorities.

II. The Fourth Generation of Human Rights in the Conflict between Digital Technology and Rights

The rationality of the generational human rights typology method is the premise for the continued exploration of generational human rights. Although the generational human rights typology method is not perfect, it also has the contemporary significance of human rights classification and periodization. We know that as long as society is progressing, new rights issues will be an eternal theme. We live in an era of constant change, an era of "liquid modernity" described by Bauman , where technological innovation and change will not stop. This is both an opportunity and may also bring new harm due to abuse and improper use. Human beings are undergoing transformation in the new digital age. New technologies have penetrated deeply into the legal environment, and human rights have also undergone considerable transformation. This has not only brought about innovative ways to reinterpret traditional human rights from a technological perspective, but also generated new categories of human rights, especially on the Internet and cyberspace. "On the one hand, rights are expanded, and on the other hand, rights are weakened." [10] This may bring about a new era of human rights where human rights challenges and human rights opportunities coexist. These categories can be identified as a unique digital rights generation.

1. Progress in Rights in the Digital Age

We are now in the middle of the Fourth Industrial Revolution, a digital revolution defined by the rapid development of digital technology. The current historical period is characterized by the so-called "meta-technologies" of digital information, that is, those digital, networked, and intelligent technologies that can fundamentally change and influence its development, creating new applications such as the Internet, the Internet of Things, big data, and artificial intelligence, and giving birth to a new digital lifestyle. Smart business, mobile payments, smart transportation, smart healthcare, and the sharing economy appear in all aspects of our lives, and the impact of these digital technologies on our lives is stronger than ever before. It can be said that the prototype of the digital world shaped by the digital revolution characterized by artificial intelligence, big data, cloud computing, and intelligent robots has been formed.

A cursory review of the development of digitalization will amaze everyone at the speed of its popularization. The commercial use of computers began with the Windows program launched by Microsoft in 1985, the popularization of the Internet began with the establishment of Google in 1998, and the launch of smartphones began with the first iPhone launched by Steve Jobs in 2007. In China, the largest Internet communication tool in China, QQ, was launched by Tencent in 1999, and the largest online shopping website in China, Taobao, was founded in 2003. These are only 30 years or less in physical time, and now the result of the popularization of digitalization is that we use computers to surf the Internet and work, and smartphones have become the standard in the digital age. This is due to the speed of innovation of these digital companies in developing and applying digital tools, and their ability to expand the scope of application of digital tools and new accessibility. This has made the popularization of digitalization so rapid, and the digital revolution has accelerated, and the acceleration of digitalization will continue. In the final analysis, the impact of the rapid popularization of digitalization on us is that it has brought us from the analog world to the digital world, built a new digital-driven lifestyle in the digital world, and finally moved towards the metaverse.

Generally speaking, the digital world is a digital virtual world composed of digital code expressions and information data flows. It is an open, interconnected, relatively free, and shared world relative to the physical world. In the digital world, will the increasingly accelerated innovation and rapid development of digital technology necessarily bring about progress in rights? Can the digital age provide new possibilities for the construction of digital human rights? This will be the basis for thinking about digital technology and human rights.

First, the progress of the digital age has indeed changed some traditional human rights. Human rights are not a one-time system of rights. They will evolve with the evolution of political ideology and social and economic facts. The development and social application of emerging digital technologies (such as social media platforms, the Internet of Things, artificial intelligence, self-driving cars, etc.) have made "old" rights present "new" phenomena and "new" forms, which are mainly reflected in the new forms of the digital upgrade of freedom and social rights. [11] The traditional classic right of privacy is an obvious example. The digital world may mean a transparent society, huge computing power and ubiquitous high-speed data flow, which poses a threat to people's privacy. Therefore, a more powerful privacy protection system is needed to be applied globally. In fact, as early as June 29, 2012, the United Nations General Assembly resolution pointed out that human rights also apply online and privacy must also be protected in the digital field. In practice, under the influence of the progress of the digital age, the right to privacy has indeed presented a "new" form. "From the initial limitation of the personal meaning field in the physical world to the gradual manifestation of data rights in the online world, it can also be said that the right to privacy is gradually digitized." [12] The new data-based form of privacy rights requires that corresponding privacy policies keep pace with the times, improve the principle of informed consent, and maximize the data privacy protection function of the principle of informed consent.

Secondly, the progress of the digital age has indeed spawned some new categories of human rights. In modern life, the huge information and communication technology infrastructure and the extensive flow of information have shaped new social conditions and new social relations, resulting in various new phenomena, new types and new forms of human rights. This has also generated an opportunity to rethink the scope and expansion of human rights. Many unresolved issues in the field of digitalization also need to be answered by human rights. For example, the value of data in the digital age is becoming increasingly prominent. The metaphors of digital oil and digital gold simply show that data as a resource can bring commercial value, and data also has property attributes due to this feature. Data is also closely related to privacy and presents personality rights characteristics. Therefore, the personality rights attributes of data may include the right to informed consent, the right to be forgotten, and the right to modify data; while the property attributes of data may include the right to collect data, the right to portability of data, the right to benefit from data and the right to use data. This has promoted the addition of data-centered human rights to the human rights spectrum, most of which are included in the EU General Data Protection Regulation (GDPR) and have legitimacy, such as the right to access data, the right to modify data, the right to erase data, and the right to portability of data. It can be seen that with the advancement of digital technology, the protection of digital human rights has gradually become a global data legislation trend, and data rights have also become a new category of human rights in the digital age.

2. Risks and Challenges of Rights in the Digital Age

The digital age has become a new era of rights progress, and digital tools (such as the Internet and artificial intelligence) have become the boosters of the realization of new human rights shaped by digital transformation. However, it cannot be ignored that the destructive technological power of the digital environment has also brought new risks and challenges to human rights. Human rights history has shown that every revolutionary progress in defending human rights is a response of society to the abuse of power. Therefore, how to regulate digital technology power to defend human rights is also a measure to deal with new risks and challenges to human rights in the digital age.

In the digital age, the dark side of digital technology is increasingly evident in digital life. The digital environment has also become an area where the protection of certain basic rights is worrying, and the regulatory environment of digital life is in a state of "lawlessness" [ 13] . Personal data information leakage, irresponsible decision-making of black box algorithms, online stalking, bullying, harassment, online fraud, theft, extortion, online nudity, pornography, sex trade, online hacker violence, cyber terrorism, etc., all happen from time to time in the digital environment, are involved in events, and cannot be underestimated.

In addition to the dark side of digital technology that poses concerns for human rights, the risks and challenges that digital technology power poses to human rights are also a major issue. Generally speaking, the right to privacy, the right to freedom of expression, and the right to equality and non-discrimination are the human rights categories that are most affected by digital technology power.

1. Privacy risks and challenges in the digital age

The concept of privacy is rooted in individualism and is closely related to protecting the autonomy of individuals and their personal identity and dignity. Of course, privacy is not static, but evolves over time. In the past, the right to privacy was more about gossiping in the sense of "gossip", but the privacy problem in the digital society is mainly about the pursuit of profit in data, and the boundaries of privacy are almost blurred. The profitability of data will inevitably lead to some companies making profits by any means, which is the main cause of data privacy problems. In the digital age, personal information is digitized, and living people become data collections with digital information as the carrier. This may result in such a consequence that once the information touches the Internet, it will leave a trace forever. Even if the terminal deletes it, the network server and operator still retain the data, and it is difficult to control the circulation of copies or flow into other databases. Because of this, privacy may become increasingly scarce in the digital age. In line with this concern, unprecedented privacy deprivation is happening. Personal privacy can be exposed at any time through the leakage, monitoring and interception of data information. People are becoming more and more "transparent". Not to mention the exposure of traces of digital activities, even a facial photo can "look" out your disease, not to mention the biometric information security issues brought about by artificial intelligence technology facial recognition. But the most critical thing is that privacy rights holders don't understand privacy technology very well. Moreover, the human impulse to share overwhelms the human impulse for privacy, resulting in the right to privacy in the digital age. Although it is a valuable right, it is also a fragile right, and it is increasingly easy to become a victim of technology. What's more frightening is that when the digital technology system refuses to treat you as an individual, just a combination of 0 or 1 numbers, it is impossible to have privacy. Therefore, the issue of privacy is one of the decisive human rights issues in the digital age.

2. Risks and challenges of freedom of expression in the digital age

The right to freedom of speech is a noble good. It allows people to express their thoughts and feelings to others in any way without fear of being punished. Therefore, the right to freedom of speech is an important indicator of a society's democratic capacity and institutional commitment to democracy. In the digital age, the abuse of freedom of speech and surveillance capitalism on digital networks are all the rage, and freedom of speech has become more complicated. On the one hand, abuses of freedom of speech such as extremist speech, hate speech, and the use of the Internet to spread violent rumors have a lot of room to exist in the digital environment, which is also a difficult problem for the regulation of speech networks in the digital environment. On the other hand, the very extensive, powerful and profitable "little brother" surveillance system [14] 68-69 and the "big brother" digital oppression system generated by the prevalence of surveillance capitalism make the space for free speech extremely valuable. The main actors in digital network surveillance are enterprises, whose working model is to provide "free" personalized digital services by monitoring people. People often overestimate the "free" on the surface, but in the dark, this free is a kind of "stalker economy", [14] 73 tracking our calendars, documents, chat records, call records and other data information related to speech. In this ubiquitous commercial surveillance, every move will be recorded, which will have a chilling effect on freedom of speech. Relatively speaking, if the systematic abuse of government surveillance becomes normalized, collecting everything, mastering everything, and using everything, it will harm freedom of speech even more. In the top-secret electronic surveillance program "Prism Project" revealed by Edward Snowden, it is shown that some governments conduct large-scale surveillance, filter and block digital content by wiretapping calls, text messages, social media and even GPS locations, and even interrupt access to the Internet to restrict the flow of information, suppress criticism, and monitor political dissent. Freedom of speech is not the right to speak freely and maliciously sensationalize, but the right of others to question what you say. But bypassing public debate and questioning, and directly editing dissent as failure or permanently banning it at will through digital technology is undoubtedly similar to the barbaric world of the animal kingdom where only the strong can speak. This is the second option of American scholar Noam Chomsky's position on freedom of speech: you hate his views but vigorously defend freedom of speech, or you reject freedom of speech and tend to fascist standards. [15]167 It can be seen that the choice of freedom of speech policy has a real impact on individual rights and democratic operations.

3. Risks and challenges of equality and anti-discrimination rights in the digital age

Discrimination has never been a sign of a civilized society, and all discrimination - no matter what form it takes - is evil. Discrimination is also a prominent and critical issue in the digital environment. There is a possibility of bias in the algorithms of systems such as university admissions, personnel recruitment, credit ratings, banking, child social support systems, and social security systems. People may be directly or indirectly discriminated against because of "race, skin color, gender, language, religion, political or other opinions, nationality or social origin, property, birth or other status, etc.", which can easily lead to algorithmic discrimination such as algorithmic redlining, algorithmic Jim Crow, and algorithmic identity politics. Digital discrimination reinforces prejudice against reality, and its targets are mainly concentrated on groups that have been affected by negative discrimination and prejudice in the past. For example, qualified people are excluded from universities because of their race; applicants are denied access to bank credit and other financial services based on the community they come from; network-related high-paying job recommendations tend to favor men rather than women, and so on. These will lead to unfair resource allocation, irreparable actual losses, and the formation of a black box society. [16] Discrimination may take a slightly different form in the digital age, especially in the virtual world where social consensus is loosening, and discrimination is further amplified, but its essence is still a challenge to the spirit of human rights equality. Safiya Noble, an American scholar who studies algorithmic discrimination, believes that digital algorithms, as the most popular and neutral tools, are generally considered to be objective, but they can cause and amplify discrimination and hatred. [17] Of course, digital technology cannot be considered to simply replicate and strengthen discrimination. The key to the problem is the social structure that discriminates against the weak in society and provides convenience to certain types of people with prejudice. ⑥ As for the solution to this problem, if there are no automatic decision-making tools to clearly eliminate these structural inequalities, the speed and scale of algorithms will exacerbate these inequalities, [18] especially when it comes to artificial intelligence that uses big data such as biometric information and face recognition. This unconscious discrimination is a structural phenomenon that can be reflected in legal systems, social norms, or mapped into digital technology, reinforcing existing inequalities or creating new inequalities. Institutionally, allowing discrimination is worse than creating discrimination. Anti-discrimination laws are not too early, but too late. Therefore, in the face of digital discrimination, legal system design urgently needs to make it clear that digital discrimination is illegal and determine the institutional remedies and scope available to victims of digital discrimination.

3. Core characteristics of the fourth generation of human rights

Digital technology has become the infrastructure of the digital world. Its impact is wide-ranging and has become part of people’s daily lives, such as work, entertainment and social interaction. At the same time, new digital values, new digital moral models and new digital social organizations have also emerged in the digital world. In terms of social change, there are also trends such as “dissolution of physical time and space, blurring of sovereignty boundaries, confusion between state and society and dual human nature of biology and digital” [19] . It can be said that the “digital socialization” brought about by the progress of digital technology , the digital transformation of social relations, the uncertainty and future concerns about the impact of digital technology on human freedom itself, and the new ways for digital technologies such as the Internet of Things, big data and artificial intelligence to exercise digital rights and any rights of previous generations have put the fourth generation of human rights, which are different from the third generation of human rights in the physical world and exist in the digital world, on the agenda to meet other needs that have emerged over time but have not been covered by the first three generations of human rights. It can be seen that the discussion of the fourth generation of human rights is inseparable from the digital society and digital rights. The relationship between the three is generally presented as the fourth generation of human rights existing in the digital society, which is mainly composed of digital rights.

The essence of human rights is the right to have rights, and the claims of rights all stem from great historical changes. If the civil and political rights recognized after the French Revolution in 1789 are regarded as the first generation of human rights, the economic, social and cultural rights spawned by the workers' movement in the 19th century are the second generation of human rights. The rise of nationalism in the Third World after World War II triggered a wave of collective, environmental and development rights in the third generation of human rights, while the fourth generation of human rights has developed along with the digital revolution in the late 20th century to protect citizens from the harm of digital technology and enjoy the benefits of digital technology. The necessity of establishing the fourth generation of human rights is that the industrial and commercial background knowledge represented by the first three generations of human rights, namely civil and political rights, economic, social and cultural rights, and solidarity rights, has become the background knowledge of the digital society, which has undergone a great change. As the background knowledge has leaped from the industrial and commercial stage to the digital society stage, human rights must also be reshaped in accordance with the production and life laws of the digital society. This requires the advancement of rights in accordance with the logic of the digital society, otherwise there will not be enough rights tools to effectively protect their rights. In short, the special characteristics of the digital society require special rights to guarantee. As Professor Ma Changshan pointed out, the modern human rights concept based on the Enlightenment spirit is no longer sustainable in the face of the human rights challenges in the digital age. It is necessary to reshape the human rights values ​​in accordance with the production and life laws of the digital society and to confirm and protect "digital human rights". [20] The characteristics of digital human rights that distinguish them from the previous three generations of human rights are: the specific object is information (data) presented in a special digital form; digital human rights are realized through the use of digital technology (digital realization of rights) and belong only to "digital humans" (people with digital attributes); the obligations of digital human rights include the positive and negative obligations of the state and private actors. Therefore, digital human rights are more suitable to belong to a new independent rights generation (or system). This solves the problem of "no new rights, no new generation". At the same time, the fourth generation of human rights, as a framework of overall rights, can solve the problem of "new rights, but not necessarily human rights" in the digital age. For example, some countries also grant robots corresponding rights, but it is difficult to say that this is human rights. ⑦ If it is not human rights, it cannot be included in the category of the fourth generation of human rights. In summary, the core characteristics of the fourth generation of human rights lie in the digital rights needs and digital realization of rights in the context of the digital society.

III. List of Digital Human Rights

The entanglement between digital technology and rights has actually proved the necessity of digital human rights. In the digital world, the question of how to respect, protect and realize human rights is inevitable. Digital rights should also be inherent human rights and are inalienable like other human rights. We are at a critical moment in protecting human rights in the digital environment.⑧ Therefore, the establishment of a digital rights list is just right and will help to understand, publicize and spread digital human rights.

The earliest list of digital human rights can be traced back to the 21 articles of Robert B. Gelman's "Declaration of Human Rights in Cyberspace", which includes the most basic digital human rights, such as the right to equality, the right to privacy, anonymity and security, and the right to freedom of expression. Articles 1 and 2 ( 9) mainly emphasize the right to equality. After that, there have been many proposals for human rights in cyberspace, but they are mainly about the network (or the Internet). The most famous one is the EU's "Guidelines on Human Rights for Internet Users". The guidelines aim to interpret the rights and freedoms of Internet users protected by the European Convention on Human Rights in a user-friendly way. They mainly list Internet users' network rights such as non-discrimination, freedom of expression, freedom of information, privacy and data protection, and specifically point out that children or adolescents have all the rights and freedoms outlined in the guidelines and are entitled to special protection and guidance when using the Internet due to their age. It can be seen that during this period, the term "digital human rights (rights)" was not widely used, and digital human rights (rights) were usually referred to as "Internet rights", "human rights in cyberspace", "network rights" and "information human rights". ( 10 )

However, it is not enough to limit digital human rights to the Internet. It is necessary to cover all current and future digital interaction areas of user experience. In other words, digital human rights are human rights that are widely applicable to the digital field. Any human rights respected in the physical world should be equally respected in digital form. In practice, Germany and Spain were the first to fully propose digital human rights (rights). Since December 2016, the Charter of Digital Fundamental Rights of the European Union, written by 27 experts from a German organization , has been published in many newspapers as a full-page advertisement. This charter has 23 articles, covering personal autonomy and freedom, the development and use of artificial intelligence, information self-determination and data security, and other aspects (such as elections, the right to be forgotten, free use, etc.). On November 26, 2018, the University of Deusto in Spain published the Deusto Declaration of Human Rights in Digital Environments . In this declaration, the adoption of the fourth generation of fundamental rights suitable for the digital age is advocated, and a total of 17 digital human rights are listed, including the right to be forgotten on the Internet , the right to go offline, the right of individuals to protect their "digital heritage" , the right to protect personal integrity related to technology, the right to freedom of expression online, the right to digital identity, the right to privacy in the technological environment, the right to transparency and accountability in the use of algorithms, the right to be ultimately supported by actual people in the decisions made by expert systems, the right to equal opportunities in the digital economy, consumer rights in e-commerce, online intellectual property rights, universal Internet access rights, digital literacy rights, online fairness rights, and online security rights. On December 7, Spain's new law, the Organic Law on Data Protection and Digital Human Rights ( LOPDGDD), came into effect. This law is a national legislation that supplements the existing rights system in the EU General Data Protection Regulation (GDPR), but it contains some new digital human rights, including the right to universal Internet access, the right to digital education, the right to privacy in the workplace and the right to use digital devices, the right to digital disconnection in the workplace, the right to privacy in front of video surveillance and recording equipment in the workplace, and the right to digital wills. The Portuguese Charter of Human Rights in the Digital Age , published on May 17, 2021 , defines “the rights, freedoms and guarantees of citizens in cyberspace”, transforming the Internet into a tool for achieving freedom, equality and social justice, as well as a space for the promotion, protection and free exercise of human rights, with a view to achieving social inclusion in the digital environment, and states that “the norms that contain and protect rights, freedoms and guarantees in the Portuguese legal order fully apply to cyberspace”. The document mentions citizens’ digital human rights in cyberspace: the right to access the digital environment; freedom of expression and creation in the digital environment; the right to prevent false information; the right to assembly, demonstration, association and participation in the digital environment; the right to privacy and data protection in the digital environment; the use of artificial intelligence and robots; the right to net neutrality; the right to digital skills development, that is, the right to digital education; the right to identity and other personal rights; the right to be forgotten; rights on digital platforms; the right to cybersecurity; the right to freedom to create and protect content; the right to prevent the abuse of geolocation; the right to a digital will; digital rights vis-à-vis public administrations; children’s rights; the right to digital citizen action. This demonstrates Portugal's participation in the digital transformation and the promotion of the digital environment, an initiative proposed by legal action to promote and defend human rights, which defines a new paradigm for digital transformation: promoting digital transformation based on ethical principles and values ​​and respecting human rights. The European Council launched an initiative on June 1, 2021 during the "Leading the Digital Decade" event, the Lisbon Declaration- Digital Democracy with a Purpose . The annex to the initiative proposes a framework for digital principles, which can be further developed into a digital rights charter. At the same time, this declaration has been approved by 27 EU member states. The Spanish government adopted the Digital Rights Charter on July 14, 2021. The Digital Rights Bill stipulates 25 digital rights such as anonymity and data protection, digital inheritance rights, freedom of expression and the right to access true information, digital disconnection, protection of minors, cybersecurity, educational accessibility and neutrality of the Internet, the right of everyone to control their own identity and the right to equality and non-discrimination, and the rights of people in the face of artificial intelligence and neurotechnology .The Charter is one of the ten goals set in the Digital Spain 2025 Agenda. It is not normative, but provides a reference framework to safeguard the rights of citizens in the new digital society, aiming to recognize the challenges of adapting current rights to the digital society. On January 26, 2022, the European Commission presented to the European Parliament a declaration of digital rights and principles for a people-centered digital transformation, the European Declaration on Digital Rights and Principles , which declared that digital rights are rights that allow people to access, use, create and publish digital media, as well as access and use computers, other electronic devices and communication networks . Digital rights are closely related to freedom of speech and privacy. Digital rights are also called the extension of human rights in the digital age. Key digital rights include the right to access and use computers and other electronic devices, the right to access and use digital content, the right to create and share digital media, the right to privacy in the digital community, the right to freely express one's own ideas and opinions, and the right to report any person or thing that seems inappropriate. The EU hopes that these rights and principles can serve as a guide for the EU's "digital transformation", provide a reference framework for people, and provide guidance for businesses and policymakers, and even become a standard for shaping global digital rights protection.

"Digital rights are human rights" is not just a slogan, it is also being written into the law. The author admits that the above digital human rights are comprehensive and appropriate, neither radical nor backward. These digital rights lists mainly focus on digital freedom rights (data protection, identity rights, anonymity rights, digital security rights, digital inheritance rights, and the right to prevent the abuse of geolocation in the digital environment); digital equality rights (protection of minors, people with disabilities and the elderly, equality and non-discrimination rights in the digital environment, the right to Internet access and the right to universal accessibility in the digital environment); the right to participate in and build the digital public environment (the right to freedom of expression, the right to freely receive true information, the right of citizens to participate through digital means and the right to digital education, etc.); digital rights in the workplace, business environment and specific environments (the right to digital disconnection, rights in the face of artificial intelligence and neurotechnology, and the right to technological development and a sustainable digital environment). Domestic scholars have already discussed most of the contents, so there is no need to over-explain them. For example, individuals have the right to control their online identities and prevent any unwelcome third parties from interfering with how they manage their digital identities; everyone has the right to manage their digital identities and digital property after death, and they have the right to be forgotten by deleting their personal data from Internet search engines. However, there is one offline right that is relatively unfamiliar to Chinese people, so it is necessary to summarize and explain it.

The right to disconnect , also known as the right to digital disconnection, means that all individuals have the right to stop providing their services online and implement disconnection measures to prevent being required to be online and contactable, and to ensure their right to rest. France is the first country in the world to grant workers the right to digital disconnection. Article 55 of the French Labor Law was signed into law on August 8, 2016, requiring companies with a certain number of employees to not send emails to employees after work, and employees have the right not to reply or process the content of emails. In other words, workers and public employees have the right to digitally disconnect to ensure that their rest time and privacy are respected outside of legal or regular working hours. In fact, today when digital software tracking and monitoring employee tasks and work has become a tool for units to quantify work, the proposal of the right to disconnect is a means of protecting personal data, respecting personal autonomy and self-determination, and protecting employees' right to rest and health.

IV. Risk Prevention of Digital Human Rights: Regulation of Digital Technology Power

Noam Chomsky once said, "Social action must be driven by a vision of the future society and a clear value judgment about the characteristics of this future society." [15] 113 We are in a new era of growth in digital rights, but at the same time, it is also an era of new expansion of digital technology power, or more precisely, an era of alliance between digital technology and power. Digital technology power reflects a kind of domination in the context of digital society, changing the way people work, study, socialize, shop and travel. Digital software monitors people's neural data to improve work efficiency; digital education products can determine the evaluation of students' classroom grades and even the effectiveness of teachers' teaching; digital social tools make the boundaries between our work and commuting time begin to blur, and we are always ready for work arrangements. Social tools have become tools for work negotiations, and social alienation, isolation and depression have increased; shopping and travel websites can recommend corresponding products based on people's shopping and travel habits, and even engage in price discrimination based on big data from time to time. All of these show a power structure dominated by digital technology, making digital technology "like ideology, with obvious instrumental and enslaving characteristics, playing a social function of ruling and enslaving people ." [21] It can be seen from this that in order to avoid the emergence of a “black iron age” of digital human rights in the “golden age” of digital technology, how to regulate digital technology power becomes the foundation of digital rights risk prevention.

1. Building inclusive value of digital technology

The first step in preventing risks to digital rights is to seek the best way to introduce inclusive values ​​to digital technology in a society dominated by digital technology rationality. The contemporary understanding of human rights includes three interrelated qualities: rights must be inherent (inherent to all people), equal (same for everyone) and universal (applicable everywhere). [22] In terms of these qualities, digital human rights are also inherent human rights, equally applicable and universally usable, while digital technology in real life challenges these characteristics of human rights. In order to reduce the divergence and deviation between digital technology power and digital human rights, what is needed is not new values, but new applications of the values ​​of the digital world. Digital technology needs to incorporate inclusive values. The construction of inclusive values ​​of digital technology requires efforts in the aspects of digital technology being good, people-oriented, and enjoying the rights protection of scientific progress and application benefits in inclusive governance. This requires digital technology to be people-oriented in the content of inclusive governance, respect all digital citizens, enable them to fully enjoy the benefits of digital technology progress and application, promote equality and opportunities for digital technology, and strive to eliminate all forms of discrimination in the digital technology environment. In the process of inclusive governance of digital technology, the subjects of digital governance should be diverse, and all digital stakeholders should be able to participate; the digital governance process should be cooperative and good governance, reshaping the digital culture of technology for good and not for evil, with special attention paid to the victims of the digital divide; the effectiveness of digital governance should be inclusive, and the benefits of digital technology progress and application should be shared fairly. [23] In a nutshell, the construction of inclusive values ​​of digital technology is to enable everyone to enjoy a non-discriminatory digital society, so that all citizens can become members of the digital society without discrimination and alienation; so that all citizens can use the development of digital technology according to their needs and benefit from it; so that individuals with differences and disadvantages can become better, rather than worse, in the face of digital technology. The above goals may be a bit too idealistic, but the minimum goal of constructing inclusive values ​​of digital technology is to achieve inclusiveness and the greatest happiness of the majority of people.

2. Regulation of the alienation of power in digital technology

Alienation is a dehumanizing state that separates the subject from his or her true self and real social relations. Marx described it as people believing that they are increasingly unable to control the social forces that shape their lives. The concept of alienation related to digital technology has gone beyond Marx's definition of "alienation". Digital technology alienation occurs in a person's digital life world. Through digital technology power, it coerces and manipulates a person's digital activities to pursue data commodification and obtain exploitative value, turning digital technology from a force for the advancement of human rights into a shackle on the advancement of human rights. This often happens in digital surveillance, and the "controlled hive" problem of surveillance capitalism will occur - sacrificing democracy, freedom and the future of mankind. [24] Digital technology alienation is accompanied by the alienation of digital technology power. Digital technology power has the characteristics of dominance and resource monopoly, quasi-regulatory role, and quasi-state status. [25] It has begun to "highly analyze the digitalization of all phenomena happening around us" [26] , allowing "human beings to enter an era where everything can be calculated." [27] As digital panopticonism prevails, “the state’s traditional monopoly on tools of violence is giving way to new forms of control: manipulation rather than coercion, microchips instead of bars, remote and invisible connections instead of handcuffs or straitjackets , and these panopticon changes are likely to spread throughout society .” [28] What is frightening is that governments are collaborating with the private sector to digitize the state through “automation, prediction, identification, and surveillance,” and the world is “stumbling into a digital dystopia like a zombie.” [29] Therefore, liberation from the constant surveillance and manipulation of tech giants has become an important aspect of preventing digital human rights risks.

Of course, not all digital technology power is necessarily evil, but the alienation of digital technology power is necessarily evil. The alienation of digital technology power also forces humans to think about the future direction of digital technology and how to deal with the worst risks. On this point, Professor Ma Changshan believes that under the influence of the new technological revolution, God's rules will continue to be rewritten, and it will be possible for digital technology to become the God who makes the rules instead of humans being the God who makes the rules under the influence of the current intelligent Internet. [30] There is a key question here: after entrusting the decision-making responsibility to digital robots, how to regulate the alienation of digital technology power and prevent digital robots from enslaving people?

It is also necessary to emphasize that human rights, as a legal framework and moral language, have important moral legitimacy, and human rights themselves are the source of power. At the same time, the human rights framework is universally applicable and is particularly suitable for dealing with global, cross-border, subversive, borderless and decentralized challenges such as digital technology. How human rights can adapt to the digital space and put human dignity at the center of digital technology development is the focus of today's digital human rights protection. The risk prevention of digital human rights still depends on the human rights mechanism, the greatest achievement of human civilization. Especially when the alienation of digital technology power is obvious, but there are no corresponding domestic legal remedies, human rights are a useful tool that is generally accepted, recognized and has discourse weight to condemn digital technology power. It can be said to be a "beacon" for regulating the alienation of digital technology power. Therefore, regulating the alienation of digital technology power must inevitably take the development strategy of mutual assistance and mutual benefit between digital technology and human rights, guide the development of digital technology with human rights as a method, promote the production of human rights results to guide the development of moderate digital technology, and ultimately generate digital constitutionalism that protects digital human rights and restricts digital power. In this regard, the EU has taken the first step in the attempt. In 2022, the EU proposed the so-called "Principles of the Digital Decade", which took "digital rights" as a key selling point and placed privacy, fundamental rights and strong consumer protection at the core of technical requirements. This is the EU's attempt to turn its digital governance approach (including the regulation of digital technology power alienation) into a global standard. [31] The logic behind this is that digital technology power alienation may violate the spirit and purpose of human rights. Therefore, it is necessary to reversely reshape the rights gene of digital technology power through human rights regulation of digital technology power.

5. The possibility of the fifth generation of rights

The digital age is changing the concept of human rights. But in fact, today's rights are no longer strictly limited to humans. Some "dehumanized" rights already exist. Artificial intelligence robots are granted citizenship. The Constitution stipulates that nature has the natural right to survive, persist, maintain and regenerate its life cycle. Mother Earth, rivers and other ecosystems are beginning to enjoy rights and be protected by law. [32] All of these have actually happened. The rights system has the potential to be transformative. The fifth generation of rights is quietly taking shape. This is also a new moment for thinking about the rights structure in the post-human era. For China, the fourth generation of rights is far from reaching a consensus, and the fifth generation of rights is only a vision. The evolution of rights from generation to generation may also have the paradox of the development of rights from generation to generation - "the uncontrolled spread of new rights will more likely lead to a serious depreciation of human rights currency rather than greatly enriching the overall coverage provided by existing rights." [33] This requires the academic community to conduct extensive human rights research and debate.

Notes:

① The human rights in the sense of this article are the legal and/or moral rights of all people as human beings, so the following text will not distinguish between rights and human rights.

② The most far-sighted and insightful part of this article is the reflection on the three generations of human rights, rather than the proposal of the right to harmony itself. In this article, Professor Xu Xianming's reflection on the three generations of human rights is ahead of the international research results of the same period. See Xu Xianming: "The Right to Harmony: The Fourth Generation of Human Rights". Human Rights, Issue 2, 2006, pp. 30-32.

③ Amadou Matalmbo was born in 1921. He is a Senegalese politician. He served as Director-General of UNESCO for 13 years from 1974 to 1987.

④ Karel Vasak was born in the former Czechoslovakia. Inspired by the three themes of the French Revolution, he proposed the theory of "three-generation human rights genealogy". From 1969 to 1980, he worked in the European Commission before becoming the first Secretary-General of the Strasbourg International Institute of Human Rights. He also served as Director of the Human Rights and Peace Department and later as a legal adviser to UNESCO and the World Tourism Organization. He has taught international law and international human rights law courses at many universities, published many monographs, and edited the book "International Dimensions of Human Rights" in 1982.

⑤ The normative debate on this issue originated from the drafting of international human rights instruments. Although the Universal Declaration of Human Rights does not clearly classify human rights, it recognizes two sets of rights, namely civil and political rights and economic, social and cultural rights. When drafting the Universal Declaration of Human Rights, some countries such as the United States and the United Kingdom believed that civil and political rights could be immediately enforced and reviewed, while economic, social and cultural rights could not be immediately protected and were best achieved through a progressive reporting system.

 Later, the International Covenant on Civil and Political Rights and the International Covenant on Economic, Social and Cultural Rights were drafted respectively. The International Covenant on Civil and Political Rights requires immediate protection of civil and political rights, while the International Covenant on Economic, Social and Cultural Rights only requires gradual realization of rights based on available resources. To a certain extent, it can be said that only the first generation (civil and political) rights are regarded as "real" rights because they need to be immediately protected and implemented. On the other hand, other categories of rights may be regarded as unworthy of this real rights status. See MUBANGIZI J C. Towards a new approach to the classification of human rights with specific reference to the African context. African Human Rights Law Journal, 2004(1): 98-99. The ideological origins of human rights are derived from the Western Enlightenment (modern natural rights theory). This traditional Western human rights view holds that human rights are individual rights against the state. Economic and social rights are considered desirable but not as important as civil and political rights. This concept was decisively influenced by the works of Hobbes, Locke, Rousseau and Montesquieu. See ANYANGWE C. Human rights: Generations, holism and relativity. Zambia Law Journal, 1993(25): 90.

⑥ Kimberly Crenshaw, an African American feminist scholar, criticized the problem of ignoring mainstream privilege in the "basement metaphor" of her intersectionality theory framework. It sets up a virtual basement in which various socially and historically oppressed groups are stacked together. On those shoulders are some people who are less discriminated against and oppressed, while under the ceiling are those who are least discriminated against and oppressed. The most discriminated and oppressed people are standing on the floor of the basement, because the lowest people in the space are oppressed not only by those who have the privilege to live on the ceiling, but also by those who occupy less overlapping identity positions. Its basement metaphor points to the hierarchical division of identity and the complex matrix of privilege and disadvantage that dominates the unfair experience of individuals in society and the workplace. See CRENSHAW K. Demarginalizing the intersection of race and sex: A black feminist critique of antidiscrimination doctrine, feminist theory and antiracist politics. The University of Chicago Legal Forum, 1989(1): 151.

⑦ The human rights here are not "dehumanized" human rights. In other words, the subject of human rights within the fourth generation of human rights is still human beings. The position of this part is that "dehumanized" rights are mainly part of the fifth generation of rights. At the same time, it is believed that in the digital age, there are not only fourth generation human rights, but also fifth generation rights. To put it simply, the "dehumanized" rights in the digital age are the fifth generation rights.

⑧ Professor Ji Weidong believes that 2019 is the first year of digital human rights. See Ji Weidong: Data, Privacy and Constitutional Innovation in the Age of Artificial Intelligence. Journal of Nanjing University of Law, 2020, No. 1, p. 2. However, an article published on the Forbes website believes that 2020 is the year of digital human rights. See KOLOMEICHUK S. Why 2020 will be the year of digital human rights. https://www.forbes.com/sites/forbestechcouncil/2019/12/26/why-2020-will-be-the-year-of-digital-human-rights/?sh=14a3a5c34cd8.

⑨ Article 1 states that all people’s ideas and expressions should be expressed, considered and shared with others, with equal opportunities for their own free will, whether directly or indirectly, by the initiators and recipients. Article 2 states that everyone has the right to all the rights and freedoms set forth in this Declaration, without distinction as to race, color, sex, language, religion, political or other opinion, national or social origin, economic birth or other status. In addition, no distinction should be made based on political or physical jurisdiction, or on the method of access to the network.

⑩The development of the concept of digital human rights has roughly gone through the Internet human rights stage, information human rights stage and digital human rights stage.

The low acceptance of digital human rights in the domestic academic community is largely due to the fact that they do not understand the difference between digital technology and specific digital technologies such as robotics, artificial intelligence, big data and the Internet of Things from a technical perspective. The latter are only components of digital technology and are just a few keywords representing digital transformation.

The general framework of digital principles includes: 1. Digital identity, 2. Privacy, data protection and cybersecurity, 3. Access, use and internet neutrality, 4. Use of artificial intelligence, 5. Freedom of expression and information, 6. Freedom of assembly and association, 7. Child protection, care and freedom of expression, 8. Digital education, 9. Digital platforms, 10. Digital public services, 11. Copyright and other intellectual property rights, 12. Digital heritage, 13. Effective remedies and access to justice.

Guaranteeing rights and freedoms in the digital world, right to data protection, right to identity in the digital environment, right to anonymity, right not to be located and profiled, right to digital security, digital inheritance rights, right to equality and non-discrimination in the digital environment, protection of minors in the digital environment, protection of persons with disabilities in the digital environment, protection of older persons in the digital environment, right to neutrality, freedom of expression and information, right to political participation through digital means, right to digital education, digital rights of citizens in their relationship with the public administration, rights in the workplace, right of companies in the digital environment to access data for the purposes of scientific research, innovation and development, right to technological development and a sustainable digital environment, right to health protection in the digital environment, freedom of creativity and access to culture in the digital environment, rights before artificial intelligence, digital rights using neurotechnologies, guarantee of rights in the digital environment.

In recent years, the United Nations has paid attention to the impact of new and emerging technologies on human rights. In June 2020, UN Secretary-General António Guterres proposed a "Digital Cooperation Roadmap", a set of recommended actions to help ensure that everyone is connected, respected and protected in the digital age, including eight key action areas such as ensuring digital inclusion for all (including the most vulnerable groups) and ensuring the protection of human rights in the digital age.

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