

Evaluating Relationship Of Artificial Intelligence And Its Applications To Human Rights

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Abstract

This paper aims to evaluate the use of artificial intelligence and its applications to human rights in concerns related to the future of artificial intelligence on the human element in increasing unemployment in the labor market and human abandonment. In addition to assessing the risks of using artificial intelligence on the rights of individuals in terms of enjoying privacy in decision-making, whether in the medical or educational field, and other fields. The paper also aims to research the future of artificial intelligence, as it is considered the engine of progress, growth, and prosperity in all aspects of life, by relying on machine learning algorithms to improve its performance, especially in advancing and strengthening human rights and moving them forward in achieving justice, equality, and other rights. Then provide some recommendations that help preserve and promote human rights when using artificial intelligence and its applications

Keywords: *Artificial Intelligence, Evaluating artificial intelligence, Human rights, Artificial intelligence and human rights, Relationship of Artificial to Human Rights.*

1 Introduction

The basis and purpose of the creation of humans is the construction of the earth, as the human being is a living, thinking being through the mind God Almighty has bestowed upon him that makes him distinguish and think. Human intelligence is defined as the ability of the human mind to learn and¹ use knowledge gained from previous experiences to adapt to new situations in the surrounding environment. Artificial intelligence represents one of the sciences that has recently emerged, and studying artificial intelligence requires trying to understand the processes of the human mind, and to think and gain insight into what God has distinguished humans from other creatures by the grace of the mind to use in contemplating and contemplating His creation. No matter how much artificial intelligence mimics the human mind, it remains the human mind that thought, planned, and laid the foundation for the science of artificial intelligence.

The emergence of artificial intelligence occurred in the mid-20th century, in 1956, when John McCarthy, Marvin Minsky, Nathaniel Rochester, and Claude Shannon organized the Dartmouth Conference in Hanover, New Hampshire [1]. Researchers at the conference suggested that a machine could be designed to simulate any task that requires human intelligence. On August 31, 1955, the four scientists submitted a request to Dartmouth College to organize a summer camp that would bring together many mathematicians and computer science scientists in order to establish what was called for the first time at that time the science of artificial intelligence. The request consisted of a detailed explanation of

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the purpose of the conference, and details of its presenters, their academic degrees, and their contributions [2].

Artificial intelligence faced several difficulties in the early 1990s due to technical limitations and low funding, but over time and with the availability of big data and powerful computing resources, artificial intelligence became the focus of attention in the current era and its various applications began to include all aspects of our lives. Despite the great benefits that are expected to accrue to the world from artificial intelligence, there are many challenges that have emerged due to its wide spread, which are expected to threaten humanity in the future, and one of the most important of these challenges is the problem of job loss [3]. Many studies and research have been conducted on the problem of job loss related to artificial intelligence. According to a report issued by the Oxford Martin School and the OECD, it was estimated that approximately 57% of jobs will be threatened across the world as a result of automation [4], and the most affected by this problem are low-paid and low-skilled workers who will be replaced by robots based on artificial intelligence [4] [5].

The applications of artificial intelligence today have entered into all the activities and tasks that we carry out and in all fields, which has led to the importance of focusing on evaluating the benefits and risks resulting from the use of artificial intelligence and its applications and their implications in the field of human rights [6] [7].

In this work, we attempt to examine the relationship of artificial intelligence to human rights, assess the risks resulting from the use of artificial intelligence and its applications on human rights, and evaluate the benefits that will enhance human rights. Also, provide some recommendations that help preserve and promote human rights when using artificial intelligence and its applications

This paper is organized as follows: the next section summarizes some related work. The background of artificial intelligence is shown in Section 3. In section 4 evaluates relationship of AI and its applications to human rights. Section 5 includes the results and recommendations. And section 6 concludes the paper.

2 Related Work

The research conducted by Hilal G. aimed to analyze the governance of artificial intelligence from a human rights perspective, and to present an approach to organizing the work of artificial intelligence and governing its development in a manner consistent with respect for human rights. The research began by defining the relationship between artificial intelligence and human rights by assessing the opportunities and risks that artificial intelligence poses to human rights, and demonstrating the adequacy of the rules of international human rights law to protect individuals from these risks. The researcher used the inductive analytical approach in this research. The results reached are that artificial intelligence opens new horizons for the development of human civilization. But at the same time, it poses some social and legal risks to individuals and countries. We have also concluded that the general legal rules regulating human rights stipulated in various international instruments are insufficient to accommodate the tremendous developments of artificial intelligence technologies [6].

In the research conducted by Al-Khateeb M., he clarified the relationship between law and artificial intelligence through a critical study comparing the French legislative reality with its Qatari counterpart, according to two main axes. The first - protecting “artificial intelligence” by protecting the results that this intelligence will reach at various levels, and the second - protecting “society and its various components” from artificial intelligence; In terms of ensuring that human rights and basic freedoms are not violated, in addition to

determining the legal liability resulting from the illegal use of this intelligence. The research concluded that both French and Qatari legislation contain a clear deficiency in the legal treatment of many of the points raised by artificial intelligence, and the legal rules for protecting intellectual property rights need to be better re-aligned. The research also showed that if the applications of artificial intelligence in the field of basic rights and freedoms is not regulated, it will have a severe impact on many of these rights, especially the right to human dignity, in addition to many civil and economic rights [8].

The study conducted by Ali A. aims to discuss the threats of artificial intelligence to human rights, the legal confrontation of the threat of artificial intelligence to human rights, and how to apply artificial intelligence in areas related to human rights. The results of this study show that the problems associated with artificial intelligence need to be addressed significantly, and that focusing on dedicated research in artificial intelligence in the field of human rights can help in issues related to the practice of improper use of artificial intelligence and raise the level of awareness of the effects of harmful use of artificial intelligence technologies on humans and their rights [9]. Also, the paper conducted by Bakiner O. examines the potential promises and limitations of the human rights framework in the age of AI that requires require a discussion about the relationship between human rights and science & technology [10]. In a study by Chatterjee S. to highlight the impact of artificial intelligence (AI) on human rights issues and current laws in India, he used descriptive legal research methods to examine and understand the insights of India's existing laws and regulations to protect human rights and how these laws can be developed to protect humans from artificial intelligence [11].

In the paper conducted by Roumate F., the international mechanisms and ethics have been discussed as new rules which can ensure the protection of human rights in the age of AI. This paper considers the ubiquitous and global reach of artificial intelligence; the challenges it imposes which requires an international legal oversight. The paper's conclusion highlights the necessity of taking the best possible action to safeguard human rights in the AI era. Rethinking international law and human rights and enhancing the ethics have thus become requirement rather than an option [12].

3 Background of Artificial Intelligence

3.1 Artificial Intelligence and Its Importance

Artificial intelligence is considered an umbrella that includes the range of technology that seeks to perform tasks typically associated with human intelligence [13]. Artificial intelligence is defined as the science that is concerned with making machines simulate human intelligence and making them capable of performing tasks that usually require human intelligence, such as thinking, problem solving, visual perception, decision making, translation, speech recognition, and others. Where intelligent machines and systems become able to learn and use knowledge gained from previous experiences to adapt to new situations in the surrounding environment [14] [15] [16] [17].

Artificial Intelligence (AI) is a great revolution and development that will enter all areas of our lives, and in the coming years AI will be an integral part of all modern programs [18], as it pushes various sectors forward very quickly because of the speed it provides in performing routine tasks with accuracy in performance and saving time and costs. Artificial intelligence also provides predictions and insights based on data analysis, which supports making informed decisions and staying ahead of the competition, which has made artificial intelligence applications an integral part of our day [19].

In order for individuals to be able to get the most benefit from artificial intelligence and its applications, they must be aware of the negatives and challenges of artificial intelligence and know how to avoid and deal with them. Since artificial intelligence can replace human

jobs, this leads to job loss and unemployment [3] [20]. In addition, AI may be vulnerable to cyberattacks and hacking, resulting in security risks. Artificial intelligence also lacks the ability to understand and empathize with human feelings and experiences. In particular, one of the most important disadvantages of artificial intelligence is excessive reliance on its applications, which reduces individuals' skills such as critical thinking, decision-making skills, problem solving, etc. [20] [21].

3.2 Types of Artificial Intelligence

There are three main kinds of AI based on its capability to perform tasks [22] [23]:

3.2.1 Artificial Narrow Intelligence (ANI)

Artificial Narrow Intelligence, also known as weak AI, performs specific task and doesn't support simultaneous tasks. But it does the job with the highest level of accuracy. it incapable of analyzing scenarios that include imperfect information or require historical understanding. There is a lot of examples of narrow AI like Google search, Virtual assistants of IBM's Watson, Siri by Apple, Alexa by Amazon, Cortana by Microsoft.

3.2.2 Artificial General Intelligence (AGI)

Artificial general intelligence, also known as strong AI, has capabilities similar to those of humans. It is capable of performing any intellectual task that a human can perform, such as thinking, teaching, and taking continents. It is ideal for solving unfamiliar jobs that have difficulties and differences in decision making. Artificial general intelligence is a future generation machine capable of performing all kinds of tasks.

3.2.3 Artificial Super Intelligence (ASI)

Artificial Super Intelligence is commonly referred to as artificial superintelligence, is strictly theoretical and is the pinnacle of AI research. Super AI has cognitive abilities that surpass those of human beings. If ever realized, Super AI would evolve beyond the point of understanding human feelings to feel emotions, have needs and possess beliefs and desires of their own.

3.3 Applications of Artificial Intelligence

Artificial Intelligence has been used in various sectors and fields of technologies such as [16] [19]:

3.3.1 Gaming

Artificial Intelligence uses in strategic games such as chess, poker, tic-tac-toe, etc., where the machines use heuristic knowledge to find a large number of possible positions.

3.3.2 Natural language processing

Artificial Intelligence uses in a variety of activities including dealing with natural languages like generation of sentences for human-machine dialog, indexing and retrieval of documents, translation, etc.

3.3.3 Robotics

Robots can perform any task accurately and rapidly. They can interact with the external environment such as light, heat, temperature, movement, sound, and pressure, then They

can decide the suitable decisions. And robots capable of learning from their mistakes and they can adapt to a new environment.

3.3.4 Fraud prevention

Artificial Intelligence can help reduce the likelihood of credit card fraud by looking at usage patterns, which helps e-commerce companies deal with fraud.

3.3.5 Speech recognition

The true man-machine dialog systems by voice, will make it necessary to use AI. which makes these systems capable of hearing and comprehending the language in terms of sentences and their meanings while a human talks to it.

3.3.6 Spam filters

The email uses AI to filter out spam emails and sending them to spam or trash folders, letting us see the filtered content only.

3.3.7 Expert systems

They are an intelligent systems used in a wide variety of fields, and possess a great deal of knowledge to enable intelligent decisions to be made, independently or in close interaction with humans.

4 Artificial Intelligence and Human Rights

4.1 Relationship of Artificial Intelligence to Human Rights

The definition of the human being, idiomatically, is the individual whom God created to populate the earth and worship Him [24]. The definition of the human differs according to the ideologies of each individual system. It is different in the capitalist system than in the socialist system, where the need has emerged since ancient times for the existence of legal rules that regulate the relationship of individuals within a single society. Thus, providing a kind of balance in their bilateral relations [25]. The Universal Declaration of Human Rights and the international covenants that were ratified in 1966 adopted concern for human rights and considered them to be the rights inherent to the human being from his birth which are the rights that all human beings enjoy equally without any distinction based on race, sex, or religious belief, such as the right of individuals not to be violated. Their privacy, health care, fairness and equality and more.

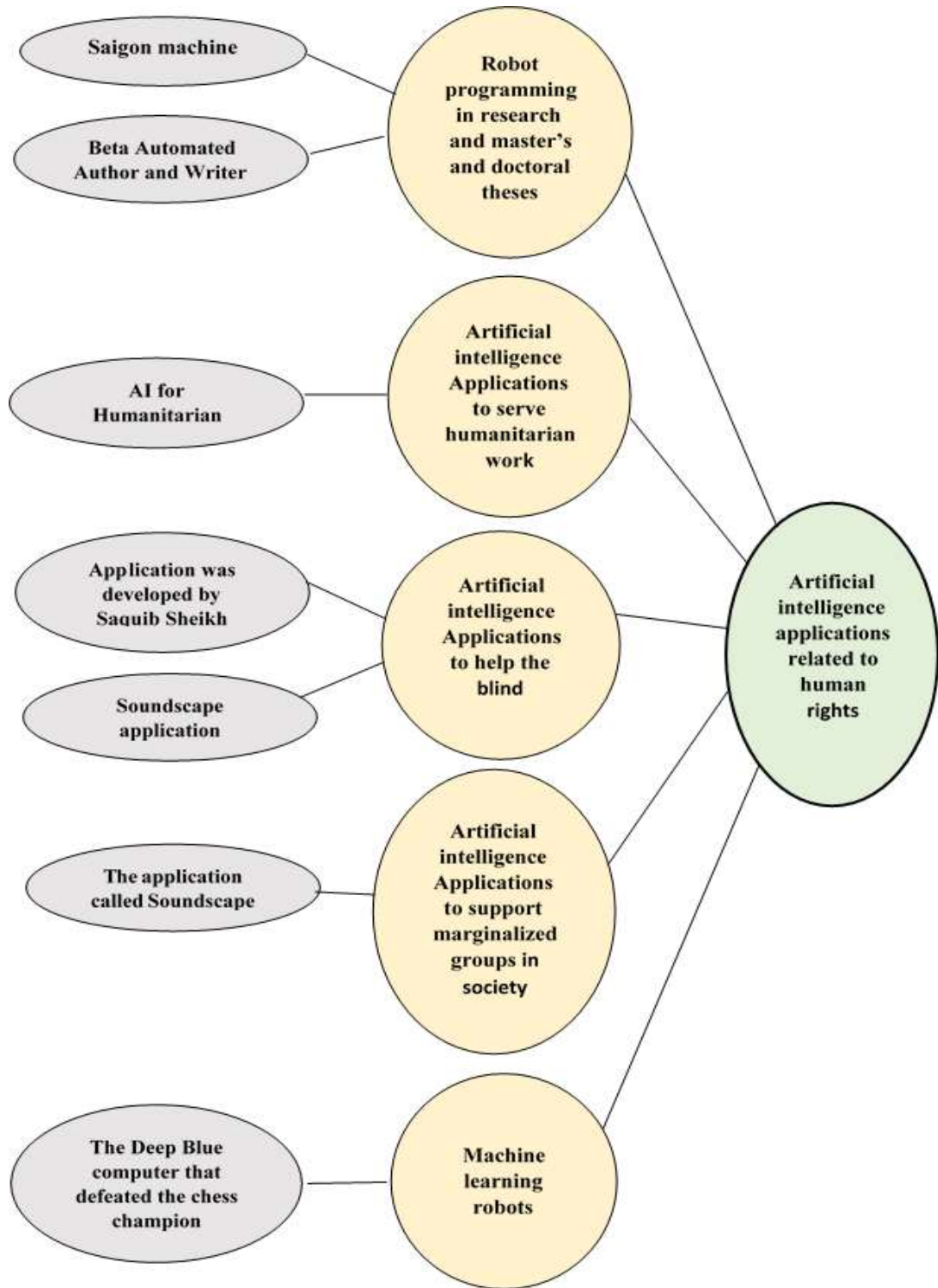
The relationship between human rights and artificial intelligence begins with the importance of including human rights in the life cycle of artificial intelligence, as human rights are included in the processes of transferring and preparing data, designing models, tools and services, and in the processes of developing, disseminating and using it [26].

Artificial intelligence is also closely related to human rights in terms of the implications of its use. The basic criterion for protecting human rights is to enable individuals to enjoy human dignity. Artificial intelligence and its various applications help humans obtain new options and opportunities to improve their lives and allow them to experience better standards of decent living. But on the other hand, artificial intelligence has presented a set of new limitations and difficulties that could jeopardize basic human freedoms and rights, whether directly or indirectly. These capabilities and threats must be recognized within the standards of interaction between artificial intelligence and the individual by identifying them and evaluating their impact on people's rights and freedoms [6] [7]. For example, on the negative effects of artificial intelligence on human rights, the infringement on the right to privacy by using recognition systems. on the face. In addition, artificial intelligence poses

a threat to some jobs and their loss [3] [20]. Despite existing fears that artificial intelligence threatens human rights, artificial intelligence can be used and invested to advance and protect various human rights (freedom of expression, respect for the private life of individuals, the right to education, the right to health), by enhancing the use of artificial intelligence systems and applications that Supports human rights.

4.2 Evaluating the Risks and Benefits of AI Applications to Human Rights

Artificial intelligence systems and its applications include many areas in our lives, including creativity, technology, and technology, so it is important to pay attention to human rights related to these areas. In this section, we list, discuss and evaluate some applications of artificial intelligence and their direct impact on human rights.



The figure 1: Examples of artificial intelligence applications related to human rights

As shown in the figure 1, there are many examples of artificial intelligence applications related to human rights. In the following, we discuss, evaluate these applications and its relationship to human rights.

- **First:** Robot programming has entered research and master's and doctoral theses, and this indicates the scientific development of artificial intelligence, as a research team

from the “MIT” Institute developed a machine called “Sygeen” that can find complete research papers randomly[27], but the purpose of this is It was not writing actual research papers, because those papers were actually of correct language, but they were not meaningful and not intelligible, but rather just an approximation of words and sentences in a way that seemed natural.

Also, for Goethe’s university team, it was able to develop mechanisms more capable of linking words and sentences, and putting them in an understandable form that is actually able to benefit readers, as Springer Nature published the book on its database so that researchers and those interested in the matter can Download it and benefit from what it offers. The accuracy of the Beta Writer was also examined. Goethe researchers hope that this new mechanism will help facilitate research for master’s and doctoral students. Instead of diving into a huge database for long days and months, the Beta Writer can summarize the research for them in a more detailed way Simplicity and usefulness [27].

In addition to what was previously mentioned, the author and the automatic writer created a beta, which automatically forms lists, introductions, and external links that refer to the research mentioned within each research, and then collected and arranged all that data in the form of a complete book [27].

The researchers believe that this scientific and technical development using artificial intelligence applications in writing books and research papers prepared by researchers and authors is considered to be of scientific benefit and a scientific development that saves time and effort. However, despite the many benefits of these applications, it is necessary to point out the matters that must be adhered to, so that These applications are compatible with legal legislation to protect authors and writers from attacks on their writings, and take into account authors’ patents and intellectual property rights from attacks.

- **Second:** Microsoft announced the launch of a new program called Artificial Intelligence for Humanitarian Action, which will harness the capabilities of artificial intelligence in order to help the world recover from disasters, meet the needs of children, protect refugees and displaced persons, as well as enhance the application of human rights laws [28].

The researchers see the importance of applying such applications of artificial intelligence to serve humanitarian work, as it targets a group in need of humanitarian work, namely the category of refugees, displaced persons, and those recovering from disasters, and meeting the needs of children who are in dire need of care and care, in the circumstances that surround them during forced asylum. Displacement, and the importance of artificial intelligence applications during natural disasters, and this is an advanced scientific development.

- **Third:** An application was developed by Saqib Sheikh, a software engineer who personally understands the suffering of the blind. Saqib lost his sight at the age of seven, and he now dedicates himself to using technology to build a more inclusive world with the help of Microsoft Cognitive Services applications and machine learning. (APIs), engineers created an “artificial intelligence to assist the blind” application, through which text can be read aloud, recognize people and their emotions, in addition to describing everyday scenes. [28].

In addition, the artificial intelligence application can be paired to help the blind with another application from Microsoft, called Soundscape. This application enables individuals with blindness or low vision to be able to explore the world around them by

using a 3D audio experience through artificial intelligence to serve humanitarian work [28].

The researchers believe that using artificial intelligence applications to help the blind, with the aim of integrating them into society, and achieving a sense of stability among these groups through the participation of others who are not blind, and this leads to the ability of the blind to memorize the Holy Qur'an, which achieves positive results in strengthening the right of people to feel human existence. And practice life aspects with hope.

- **Fourth:** Artificial intelligence applications can be used to support marginalized groups in society, as the Sage Foundation recently partnered with the Seoul City Institute for Social Justice in South Africa with the aim of launching the rAInbow program, which is a program supported by artificial intelligence that works to help victims of domestic violence. Interviews were conducted with victims of domestic violence to obtain a better understanding of how to seek help. In Jordan, there is legal legislation that regulates the protection and assistance of victims of domestic violence [29], and this is what was stipulated in Article (13) of the Juvenile Law No. (32) of the year 2014, so that the Juvenile Police Department and the Family Protection Department are responsible for settling disputes in violations and misdemeanors and protecting victims from domestic violence [29].

The researchers believe that the use of artificial intelligence applications to protect victims of domestic violence leads to a feeling of family safety and stability among those exposed to domestic violence, as legal legislation provides a safe environment for victims of domestic violence, as this program helps marginalized groups know their rights and the support options available to them, in addition to Places where they can receive help, in a very easy and smooth way, knowing that it can be obtained through social networking sites, Facebook Messenger.... etc. [30].

- **Fifth:** Robots capable of conversation have been developed. A machine defeated the world chess champion in 1997, and in 2016 other machines beat one of the best players in the world in the game "Go," and excellent players in the game of poker, and computers prove or help. To prove mathematical theories, knowledge is built automatically from huge data measured in terabytes (10¹² bytes) or even petabytes (10¹⁵ bytes), using machine learning techniques.

The researchers believe that the development of artificial intelligence applications has exceeded many of the achievements based on artificial intelligence technologies beyond human capabilities, and this leads to alertness and caution about the future of artificial intelligence that may threaten humans, and to find a legislative and technical mechanism for these applications that ensures control over them.

5. Results and Recommendations

5.1 Results

1. Applications of artificial intelligence affect all sectors: industrial, banking, insurance, health, and defense, as it has become possible to transform many current routine tasks into automated processes. However, there are warnings about increasing unemployment in the labor market and abandoning the human element in various job positions.
2. The development of artificial intelligence and the increased reliance on it may lead to a scarcity of job opportunities, given that the machine will replace humans to perform many tasks.
3. Artificial intelligence applications are carried out through programming by the human element, as they do not pose a threat to the individual's independence and freedom, provided that we remain vigilant in the face of technology's penetration into our personal lives.
4. Artificial intelligence requires very huge computing power, and supercomputers are expensive, despite the presence of cloud computing.

5.2 Recommendations

1. Building an artificial intelligence work team, and forming the Artificial Intelligence Council for the Hashemite Kingdom of Jordan, with the aim of introducing artificial intelligence into state institutions represented in the transportation sector, health sector, education sector, renewable energy sector, water sector, technology sector, and environment sector.
2. Establishing work teams with presidents and general managers, with the aim of achieving comprehensive digital transformation, qualifying workers to deal with artificial intelligence and empowering them with the skills necessary to use intelligence.
3. Issuing legal legislation regarding the safe and proper use of artificial intelligence, formulating policies and establishing the necessary legislative frameworks in order to begin the comprehensive digital transformation based on artificial intelligence while providing legal protection for the human element.
4. Activating many programs, initiatives and workshops in all government agencies and universities on applied mechanisms for artificial intelligence to ensure the preservation and advancement of human rights.
5. Integrating artificial intelligence into the state sectors, and official and private institutions, and increasing reliance on artificial intelligence in routine jobs, by organizing training courses for government employees in the field of artificial intelligence.

6 Conclusion

Humans live in psychological, social, political, and social relations that have a positive and negative impact on human intelligence. Artificial intelligence applications surround humans everywhere and affect all aspects of life. In homes, schools, workplaces, movie theaters, art galleries, and the Internet, the value of artificial intelligence is important for various fields of science, especially among biologists, psychologists, and linguists. It helped in understanding the processes of memory, learning, and language from many angles, and in terms of concept, as of the end of the nineties, artificial intelligence was linked to robots between humans and machines, to produce intelligent computers that suggest the presence of emotional states and feelings, and which evaluates the individual's reactions resulting from his feelings in order to reproduce them on the machine. The spread of artificial intelligence applications has led to the support and enhancement of some human rights, and in return has led to the infringement of some human rights.

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