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Legal Regulation of Face Recognition Technology

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Abstract

With the development and popularization of face recognition technology, the application threshold of face recognition technology is gradually reduced. And face recognition technology has high application value, so face recognition technology is widely used and even abused. The legal use and regulation of this technology has gradually become a social problem. Face has the characteristics of immutability and it is easy to collect. It can bring convenience and save cost to the society. At the same time, it also faces legal risks such as information security and lack of supervision. based on the legislative status of face recognition technology in China, this paper provides ideas for building the legal framework of face recognition. And make clear the boundary between the acquisition and use of face recognition. Regulate the public interest application and private interest application with different emphasis. Promote and establish Self-discipline mechanism of face recognition industry.

Keywords

Face Recognition; Legal Regulation; Personal Data.

1. Introduction

Face as a human identity span over the centuries in human civilizations [1]. In recent years, with the progress of science and technology and the development of the Internet, human beings have invented many high-efficiency technologies, such as face recognition. Facial recognition technology refers to artificial intelligence to identify whether the collected static image or dynamic video belongs to the existing face image database. Match identities in this way. [2].

Compared with other recognition technologies, this technology has incomparable advantages and is widely used. However, face recognition not only brings efficiency and convenience, but also brings many legal risks and challenges. Face information is not only personal biometric information, but also personal sensitive information. The collection of face information shall be approved by the person. However, most industries using this technology only pay attention to the collection of personal information due to cost, efficiency and other reasons, ignoring the consent of the parties. The wide application of face recognition technology gradually shows the trend of abuse. If the data is mastered by illegal personnel, it will cause irreparable information security problems and even public information security events. The media exposed a series of cases of stealing face information without permission. Many stores install cameras with face recognition. Many sales offices also install face recognition cameras to distinguish high-quality customers to analyze their purchase intention, purchase ability and expected price. Therefore, it is necessary to regulate face recognition to prevent the technology from being abused and protect personal information.

2. Development Trend of Face Recognition Technology

2.1. Lower Application Threshold

Due to the improvement of core recognition technology, the increase of technicians, the increase of the number of users and the accumulation of data, the development of face

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recognition technology is becoming simpler and the application threshold is gradually reduced. Many network technology companies have developed face recognition technology to make more profits. Many payment software, such as Alipay, and entertainment software, such as ZAO, have also collected user's face recognition as the access condition for users to obtain core application services. By obtaining more personal information of users and matching with large database, we can obtain more user information and better service.

2.2. High Application Value

The wide application of face recognition technology increases its commercial value. At present, social face recognition is applied in many fields, such as user login, attendance clocking and so on. It provides great convenience for individuals, the government and society. This technology can not only be widely used by the government for public welfare, but also be applied by Internet enterprises for private interests. For the government, face recognition technology plays an important role in the fields of social public security, public management and criminal investigation. For example, the combination of face recognition and eye system can track suspect and monitor social order. for enterprises, face recognition technology can help serve users, improve the income of enterprises and help enterprises bear social responsibility. For example, the use of face recognition technology in online games can better supervise users. Enterprises actively undertake social responsibility and create a healthy game environment for minors. For individuals, personal safety and property safety are well protected.

2.3. Wide Range of Applications

Due to the two characteristics of low access threshold and high return, face recognition technology is widely used and has brought great convenience to people's life. At present, face recognition in China is mainly used in the following scenarios: first, financial payment software accelerates the payment process and improves the security of users' property through face recognition technology, such as Alipay; Second, banks and other major offline financial institutions use this technology to ensure the security of cash business. Third, the "face change" software also collects users' faces to achieve better entertainment services, such as Zao app.

Although face recognition technology brings convenience to people's life, it also brings risks. Many stores install face recognition cameras, which can not only capture users' face information in real time, but also automatically analyze users' gender, age and even mood. Moreover, the whole process of grasping is non perceptual and non-cooperative. Article 1035 of the civil code of the people's Republic of China clearly stipulates that the processing of personal information shall obtain the consent of the natural person or his guardian. When consumers enter the store, they are not reminded that there are face recognition cameras in it, and it is impossible to obtain consent. Although face recognition technology has brought great convenience to the society, it also produces risks.

2.4. High Error Rate

While face recognition brings great convenience and benefits, its risk cannot be ignored. Risks mainly include: Firstly, there are some errors in face recognition, which cannot accurately identify individuals. Face recognition technology is prone to confusion when facing individuals with similar faces. Moreover, the face is not invariable. When the individual face changes due to the influence of other factors, the error rate of recognition will also rise. Secondly, because the face is exposed to the outside world, there is a risk of being cracked. Therefore, face recognition technology complies with the needs of society and develops dynamic recognition, such as blinking, shaking head left and right, etc. The security and accuracy are greatly enhanced, but there is still a risk of being cracked. Third, there is a risk of information disclosure. At present, many face recognition technology enterprises in the market pay too much attention to the research and development of recognition technology and ignore the security of

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information storage. Because the information system of the platform has the risk of being invaded by hackers and viruses, there is also the risk of face information being leaked.

2.5. No Consent Required

Face is easy to collect, and it can be captured and collected without cooperation. The main problems are as follows: first, the ZAO, Alipay and other APP on the market need to agree with the protocol of face recognition to use their core services. If users refuse to face recognition technology, they cannot get their services. the network service provider enjoys the power unilaterally, and the user can only agree. Second, after users accept face recognition technology, network service providers can match face data with data to achieve more in-depth analysis. Some web service providers infinitely enlarge the use of users' faces.

3. Improve the Legal Regulation of Face Recognition

3.1. Define and Limit the Collection and Processing of Personal Information

Face belongs to sensitive personal information, and it is easy to collect. Its collection and use should not only meet the provisions of the civil code and the network security law, but also follow more stringent requirements. for example, the collection of facial information should be based on personal consent. At the same time, it should also protect the individual's right to withdraw face recognition consent, and prohibit sharing face data to a third party for illegal interests without personal consent.

3.2. Build a Regulatory Framework for Face Recognition Technology

The key is to improve the regulatory framework of face recognition technology through legislation. The regulatory framework should mainly include the following three aspects: first, an evaluation mechanism should be established to evaluate the necessity of using face recognition technology in specific situations. Second, the accuracy and scientificity of the technology should be regularly evaluated by a third-party independent organization to monitor its accuracy and non-discrimination, and some face recognition technologies with high error rate should be excluded. Third, meaningful manual review should be carried out, which is a major decision in the use of face recognition.

3.3. Clarify the Government's Authority to Use Face Recognition

The abuse of technology inevitably brings many risks, so we should clarify the applicable scenarios and boundaries of the government's use of face recognition. Adhere to the principle of reasonable use, specify the use purpose and use scene of the government in the way of enumeration in the law, and shall not exceed the use scope. At the same time, the prohibition scenarios for the government to use face recognition should also be clearly stipulated. As a special kind of personal information, face biological information should follow the principle of minimum authority in all links of face information storage and processing, and only give the collector and controller of face information the minimum authority needed to complete their work [3].

3.4. Establish an Applicable Safety and Responsibility Bottom Line

Firstly, due to the particularity and importance of face information, the collection, transmission, use and storage of face data should be encrypted. The collected face data shall be protected and stored, and personal face information shall not be disclosed. Secondly, a traceable technical system should be established to track the operation subject in the whole use process, to track the operation infringer after infringement. Third, when individuals refuse to use face recognition technology, they should provide other alternative ways. When face technology cannot ensure absolute safety, individuals have the right to refuse to collect.

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3.5. Regulation of Distinguishing Public and Private Use

It is found out that 7% of the whole information an individual express is passed through language, speech represents 38%, and facial expression represents 55% [4]. Face recognition is very important. The use of government departments and enterprises should be regulated in different ways. The regulation of the use of face recognition technology by government departments should focus on prior regulation and in-process regulation, and the commercial use of enterprises should focus on in-process and post regulation.

For government departments, we should pay attention to prior regulation, because government departments use face recognition technology in the process of performing official duties, which may cause infringement consequences. Once the government department infringes, it will have a negative impact on the government's credibility and reputation. Therefore, we should focus on prior regulation. The use of face recognition technology by government departments shall be approved, and those without approval shall not be used. At the same time, the approval process should follow the principles of openness, transparency and democracy.

For enterprises, if the installation and use of this technology requires prior approval, it may cause the lag of technological development and curb technological innovation and commercial innovation. Moreover, the government's technology obviously lags behind the technology developed by enterprises, so it is difficult to carry out effective examination and approval. Therefore, we should pay attention to post supervision. At the same time, if non-governmental departments cause infringement by using face technology, the parties can pursue responsibility through subsequent civil litigation. Therefore, it is necessary to improve the legal framework to facilitate the victims to protect their rights according to law.

3.6. Improve the Self-discipline Standard of Face Recognition Industry

The regulation of face recognition should not only rely on law. The law is lagging behind. Only relying on law cannot solve all kinds of problems that may occur in reality in time. Therefore, the core leading force in the industry should integrate many problems within the industry and formulate industry rules conducive to the orderly and healthy development of the industry. It is necessary to rely on industry Self-discipline norms to show the positive attitude of enterprises to bear social responsibility, and put forward effective relief plans.

4. Conclusion

With the wide application of face recognition technology, China should recognize its risks and treat face recognition technology carefully. At the same time, we should establish the regulatory framework of face recognition technology, and clarify the scope of government and enterprises using face recognition technology. Ensure the rational application of face recognition technology through the improvement of technology, legal guarantee and enterprise Self-discipline. The development of science and technology should not be based on violations of human rights. It is hoped that face recognition technology will be effectively regulated and guided in the future.

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