Application of Artificial Intelligence in Dynamic Image Recognition

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Abstract. The artificial intelligence technology development, also makes every aspect in the field of artificial intelligence technology, the society, how to make artificial intelligent technology a good development in the field is an important problem in the development of the current world, how to make artificial intelligence technology better application in the dynamic image recognition is currently an important problem in the development of artificial intelligence technology. The purpose of this paper is to study the application of artificial intelligence in dynamic image recognition in the Internet era. This article from the perspective of promoting good application of artificial intelligence, by the age of the Internet development as the background, on the basis of the related theoretical background and practical basis, in order to promote good application in the dynamic image recognition of artificial intelligence as the research object, from the application of artificial intelligence in the dynamic image recognition field, and the commonly used method of image recognition, find out the present situation of the application of artificial intelligence in the dynamic image recognition and application of existing problems, and based on this put forward to promote artificial intelligence in the dynamic image recognition application solutions, in order to realize the sustainable development of artificial intelligence in dynamic image recognition. The experimental results show that artificial intelligence is widely used in dynamic image recognition, but there are some defects. The solution proposed in this paper can solve its application defects, to a certain extent, for the sustainable development of artificial intelligence in various fields can provide referential advice.

Keywords: Artificial Intelligence, Image Recognition, Internet Era, Mathematical Modeling

1. Introduction
In recent years, the development of artificial intelligence technology has injected new vitality into
many fields such as education, pension, energy and medical care. Artificial intelligence also known as machine intelligence, generally refers to the use of machines to achieve intelligent behavior. Artificial intelligence was first proposed in 1956 and has gone through many ups and downs. In July 2017, the state council issued and implemented the plan for the development of a new generation of artificial intelligence, which to some extent confirms that the development of artificial intelligence has drawn the attention of the country and even the world, and reflects the country's high importance to artificial intelligence technology at the strategic level. Dynamic image recognition is one of the biometric recognition technologies, which is one of the hottest directions of artificial intelligence technology in recent years. The development of computer vision, which is closely related to human behavior, plays an important role in the development of artificial intelligence. The dynamic image recognition technology, which has been developed for a long time and is very mature in the field of computer vision, also plays a great role in promoting the development of artificial intelligence. With the continuous development of artificial intelligence, the research of artificial intelligence is developing deeply.

The development of artificial intelligence first appeared in foreign countries, so the domestic research on artificial intelligence is later than that of foreign countries, and the research emphasis of domestic and foreign scholars is also different [1]. China focuses on the research of software in the field of artificial intelligence, and is in the international leading position in the field of bionics. The proposal of domestic bionics theory has solved a number of problems in the development of artificial intelligence and made a great contribution to the development of artificial intelligence in the world [2, 3]. However, foreign scholars mainly focus on the practical application of artificial intelligence. The initial fingerprint recognition makes mobile phone unlock and payment fast, and the appearance of the latest AlphaGo makes the development of artificial intelligence take a big step forward [4, 5]. It can be seen that the research focus of scholars at home and abroad is more inclined to practice, and the development theory of artificial intelligence is rarely combined with the development of reality for general discussion. Therefore, this paper will make up for this research defect [6].

This paper mainly USES the literature review method to deeply discuss and analyze the application status and existing problems of dynamic image recognition technology, and tries to find the joint points between artificial intelligence technology and dynamic image recognition technology and the factors affecting the development of dynamic image recognition technology [7]. According to what we summed up the impact of factors, the linear regression analysis, find out the influence dynamic image recognition technology development degree is the most powerful factor, according to these factors provide feasibility countermeasures for further development of dynamic image recognition technology, to promote the dynamic dynamic identification technology of image recognition technology and AI depth fusion [8, 9]. The development theory of artificial intelligence is combined with the development reality of dynamic image recognition to make up for the shortcomings of domestic research, make users and researchers of dynamic image recognition technology become beneficiaries, and thus promote the further development of dynamic image recognition technology in China [10, 11].

2. Method

2.1 Research Issues and Difficulties
The research focus of this paper is to summarize the development status and existing problems of dynamic image recognition technology from the existing literature research. Meanwhile, with the rapid development of artificial intelligence, how to effectively improve the problems in the development of dynamic image recognition technology and promote the sustainable development of dynamic image recognition technology. The research difficulty of this paper lies in the collection of relevant data and analysis of relevant data, the use of SPSS software for modeling analysis, the use of the model for reliable descriptive analysis, and according to the model and the relevant influencing factors, put forward the feasibility of promoting the further development of dynamic image recognition technology
countermeasures, and finally draw the conclusion of this paper.

2.2 Research Ideas and Methods
The main research methods used in this paper are literature review and mathematical modeling. The two methods are selected for the following two reasons: first, the literature review method can help us better understand the development status and existing problems of dynamic image recognition. Second, mathematical modeling method combines theory and practice, which can provide more reliable support for our research.

The research of this paper is divided into three parts according to these two methods. The first part is to summarize the factors influencing the development of dynamic image recognition technology by literature review. First of all, in the baidu academic, with "the development of artificial intelligence" and "the application of artificial intelligence" as the core words for the search, the search results are sorted according to the relevance, the final determination of the research review object of this paper is 28 papers; Secondly, 28 papers were carefully studied to determine the number of influencing factors and which ones respectively. The second part is the data collection part, that is, using the determined influencing factors to design the questionnaire, issue and recover the questionnaire, carry out the data sorting of the questionnaire and the reliability and validity analysis of the questionnaire, so as to provide data support for the subsequent mathematical modeling. The third part is to conduct mathematical modeling analysis with the data from the questionnaire and calculate the linear equation of the development of dynamic image recognition technology by using SPSS software, so as to determine the factors that affect the development of dynamic image recognition technology to the greatest extent.

According to research three parts for dynamic image recognition technology development present situation, existing problems and general description, at the same time, the reliability and validity of questionnaire survey, to ensure the authenticity and validity of data, and according to the mathematical modeling to determine the impact factor of larger factors to calculate the relevant linear equations, according to the results of the end, the dynamic image recognition technology development Suggestions and opinions, in order to promote the sustainable development of the dynamic image recognition technology, to promote the further development of the artificial intelligence technology in our country, make up for the defects existing in the study of artificial intelligence technology in China.

3. Experiment
According to the literature review, there are two main factors that influence the development of dynamic image recognition technology, that is, the factors of the technology itself and the factors other than the technology. The factors of technology itself mainly include the limitations of intelligence and approaches, the limitations of mathematical foundation and the limitations of computer model, while the factors other than technology mainly include the lack of ethical regulations, public misunderstanding of artificial intelligence, imperfect regulatory system and high market entry barriers. According to these factors, a questionnaire was designed. Among the 300 questionnaires issued this time, 265 were recovered, with a recovery rate of 88%, indicating that the authenticity of the results of this questionnaire survey is relatively high. In questionnaire design, mainly reflects the degree of respondents recognition of these influencing factors, adopts the method of numerical match the degree of recognition, problem of numerical set to 1-5, respectively, represents the very recognition, recognition, neutrality, recognition, very, very recognized this on behalf of the influence factors on the impact of large dynamic image recognition technology development. Finally, according to the results of the questionnaire survey, it is considered that the development level of dynamic image recognition technology is a value between 0 and 1, and the linear relationship between the development level of dynamic image recognition technology and the influencing factors is established based on mathematical modeling.

4. Discuss
4.1 Experimental Results

First, the subjects of this questionnaire were analyzed, and the statistical results are shown in figure 1. In figure 1, we can see the number of men than women in the survey, studied the number of image recognition technology is less than 50%, but the number of dynamic image recognition technology is used as high as 90% above, dynamic image shows image recognition is far less than the number of researchers to identify the number of users, this is one reason for the image recognition technology development limited.

![Figure 1. Information of respondents](image)

According to SPSS to calculate the linear regression equation for Y (dynamic image recognition technology development level) = 0.45 X1 + 0.49 X2 + 0.65 X3 X4 X5 X6 + 0.83 + 0.9 + 0.46 + 0.21 x 7, 0.9, 0.83, 0.65, this three Numbers also showed that X5, X6, X3 these three factors effect on dynamic image recognition technology development level, the largest research is correct, the public misunderstanding, imperfect regulatory system of artificial intelligence and computer models of the limitations of impact on the development of dynamic image recognition technology is the largest.

| Table1. Recognition data sheet |
|-------------------------------|
| variable | Recognized quantity | Recognized percentage |
|----------|---------------------|----------------------|
| X1       | 150                 | 56.6%                |
| X2       | 168                 | 63.4%                |
| X3       | 196                 | 73.9%                |
| X4       | 156                 | 58.9%                |
| X5       | 256                 | 96.6%                |
| X6       | 200                 | 75.5%                |
| X7       | 85                  | 32.1%                |

It can be seen from table 1 that the interviewees think that X5, X6 and X3 have the greatest influence on the development of dynamic image recognition technology.
4.2 Analysis of Influencing Factors and Countermeasures
According to the research in the previous section, we can determine that the public's misunderstanding of artificial intelligence, the imperfect supervision system and the limitations of the computer model have the greatest impact on the development of dynamic image recognition technology, so we will put forward countermeasures and Suggestions to improve the development of dynamic image recognition technology from these three aspects.

(1) Enrich the diversification of computer models
   To enrich the diversity of computer models requires strengthening the cultivation of technical talents in the direction of artificial intelligence and improving the quality of scientists. Scientists must have their own social responsibilities. For artificial intelligence this sensitive technology should be more so, they to the topic choice, method choice, the consequences of the use of results can not afford not to pay attention to, the fact also shows that they are more and more important for human happiness, human future.

(2) To ease the public's misunderstanding of artificial intelligence
   Ease the public misunderstanding of artificial intelligence, the first is to the public a correct understanding of artificial intelligence and dynamic image recognition technology development requirements, in the process of the development of artificial intelligence, as the creator of scientific workers, or as a user, the ordinary people should correct understanding of the internal demand of the artificial intelligence technology, adhere to the development of artificial intelligence from the tenet of "for the service of humanity", always maintain the "goodness" of this new technology. The second is to popularize artificial intelligence technology, so that the public can know more about the nature of artificial intelligence, so as to establish a scientific judgment system. Want to let everybody understand artificial intelligence is won't appear like in the scene of science fiction film "guest is dominant".

(3) Improve the supervision system of image recognition products
   The improvement of supervision system refers to the reasonable planning of the development path of dynamic image recognition technology and the scientific management of the production and use of image recognition products. Specifically refers to the practice, the image recognition technology breakthrough also want to reflect the thought of ecological civilization, shall be banned on have damage to ecological environment, for is not conducive to health of body and mind development of artificial intelligence equipment should be strictly forbidden, for violation of ethics of the new invention to analyze advantages and disadvantages, so as to prevent international conflict, and even war.

5. Conclusion
To sum up, in order to promote the rapid development of dynamic image recognition, we should be in a new Angle, a new vision to recognize and understand the image recognition technology, appropriate open part of the foundation, reduce the threshold of its research, let more people to participate in the study, quantitative change causes qualitative change, when enough people involved, the spark of innovation will be more frequent collision, is bound to accelerate the research of image recognition, and artificial intelligence research in China can promote further until the realization of sustainable development, is able to gain a foothold in the field of artificial intelligence in our country.

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