Analysis and Thinking on the Transformation of Scientific and Technological Achievements based on Computer Technology

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Abstract. At present, the conversion rate of scientific and technological achievements in China is extremely low, only about 3%, and information asymmetry is one of the reasons why it cannot be ignored. The computer information system is the best solution to solve the information asymmetry. This paper discusses some feasible methods for realizing scientific and technological achievements by means of computer technology.

Keywords: Scientific and Technological Achievements, Information Symmetries, Computer Technology

1. Introduction
Science and technology is the engine of economic growth and the main driving force to improve the comprehensive national strength. Nowadays, the international situation is changeable, and the development trend is even more unpredictable. All countries pay great attention to the transformation of scientific and technological achievements into practical application, and have issued many related support policies [1]. Although we have different political systems and different national conditions, we strive for the prosperity of our country.

The transformation of scientific and technological achievements has direct transformation, but also indirect transformation, although they are different, but also have a complementary role. The transformation of scientific and technological achievements is the ultimate goal of scientific and technological research. Only scientific research results can realize the transformation to practical value, and science and technology can be called productive forces. On the way to the transformation of scientific and technological achievements, there has never been a smooth way, from new product testing, development to application promotion, means a long way, which is full of hardships and failures, but also needs to consume a lot of social resources [2]. In general, the transformation of technological achievements means include the application of various achievements, the improvement of workers' quality, the enhancement of skills, the increase of...
efficiency, etc. Productive forces include people, production tools and labor objects. Therefore, the potential productivity of science and technology should be transformed into direct productivity, which is ultimately achieved by improving the quality of people, improving the means of production and the objects of labor. In this sense, the transformation of scientific and technological achievements refers to the transfer that scientific and technological achievements move from the place of creation to the place of use, so that the quality, skills or knowledge of the workers in the place of use are increased, the labor tools are improved, the labor efficiency is improved, and the economy is developed. The transformation of scientific and technological achievements in narrow sense only refers to from one place to another, that is, the transfer of innovative technological achievements from scientific research units to production departments, so as to increase the number of new products, improve the technology, improve the efficiency, and finally improve the economy [3]. The main index of the transformation of scientific and technological achievements is the conversion rate of scientific and technological achievements, which is the ratio of the actual amount applied to the total amount of scientific and technological achievements in a certain period of time.

2. The Main Problems in the Transformation of Scientific and Technological Achievements

2.1. The contradiction of information asymmetry
"The contradiction that the patentee is eager to sell the patent achievements and the development enterprise is eager to find the scientific and technological achievements, but the information between the two sides cannot be exchanged" is the core contradiction of the transformation of the current scientific and technological achievements [4]. According to the 2018 report of the Ministry of industry and information technology, more than 97% of China's patent achievements have not been traded until they expire. In addition, China has not built a perfect patent secondary trading market. All patent transactions must be negotiated one-on-one between the patentee and the development enterprise. This system makes the two aspects that were originally lack of intersection almost impossible to achieve docking.

2.2. The contradiction of knowledge asymmetry
"The contradiction between the patentee's high-tech invention and the actual elimination status of the technology in the field of technology" is the secondary contradiction that is difficult to clinch a deal in the current scientific and technological achievements [5]. Most of the inventors in China have low education, generally no more than junior high school, they can't get the latest scientific research trends, and they don't have the ability to search for new information online. So the new and high-tech inventions that he was obsessed with have been widely used in the industry and have been updated for many generations. At present, the process of patent application novelty search is also relatively random, resulting in the registration of these patents, but there will be no industry, University, research, transformation and development enterprises willing to invest in these projects. In 2018, the news that Henan farmers invented the first man-made shoulder powered paraglider was broadcast continuously on Henan satellite TV and 10 sets of central television. In fact, nearly 20 years ago, this kind of equipment has been widely used in the navigation production environment and is on the verge of being eliminated. This is a typical example.

3. Construction of Platform for Transformation of Scientific and Technological Achievements
Scientific research is a rigorous matter, scientific and technological achievements must be true, effective and consistent with the actual production [6]. Through the traditional way to transform the achievements of science and technology, the big short board as mentioned earlier: the speed of offline information transmission is too slow and there are serious information troops said to exist. Relying on computer technology cannot only quickly distinguish the value of scientific and technological achievements, but also accelerate the dissemination of scientific research results.
Figure 1. Structure of Patent Achievement Transformation Platform

The technical implementation of the platform is relatively simple. The patentee can publish patent information on the platform, and the system can directly pull patent information from the website publicized by the patent office. Patent development enterprises and patent development investment enterprises can register accounts and directly contact the patentee on the platform. In particular, patent development enterprises and patent development investment enterprises can directly exchange information on the platform to promote the project approval. As shown in Figure 1.

This platform is a small-scale and large-scale data project. At present, there are more than 4 million patent applications per year in China, including invention patents, utility model patents and appearance patents. If more than 10% of these patents are transformed into market, they will bring huge economic benefits to the society. This platform can provide project planning and project planning services, legal services, third-party guarantee payment services, etc. The state guarantees and supports the behavior of participating in the transformation of scientific and technological achievements in the policy field, which is conducive to the exchange and rapid application of patent achievements, and has a positive effect on the enthusiasm of scientific and technological achievements research and the efficiency of the transformation of scientific and technological achievements.

The system uses 1-2 database servers, 1 streaming media server, 1 app server and 1 HTTPS server to complete the operation. Its system can run on IDC system completely, and provide operators with lower operating cost.
Figure 2. Server Structure of Achievements Transformation Platform

For operators, the greater cost comes from the data collection cost of building the platform, the publicity cost of the platform, and the team building cost of providing planning services, legal services, and financial services for all partners. This platform aims to promote the cooperation of scientific and technological achievements, which is significantly different from other information docking platforms.

4. Summary

Enterprise is the main driving force for the smooth transformation and rapid promotion of scientific and technological achievements. An enterprise may, on its own, publish information or entrust a technology trading agency to solicit scientific and technological achievements needed by its units, or seek partners in scientific and technological achievements, or independently or with domestic and foreign enterprises, institutions or other partners to transform scientific and technological achievements, undertake scientific and technological research and development and transformation projects organized and implemented by the government, or with research and development institutions. They communicate the relationship between technology supplier and demander. Science and technology intermediaries mainly include the Ministry of science and technology and achievements promotion organizations of local science and technology commissions, technology achievement fairs, technology shopping malls, technology development companies, University Science and technology parks, entrepreneurship parks, incubators, productivity promotion centers and other forms. The third-party technical service institutions include scientific research and technical services, industrial technical services, and later industrial and commercial management, legal counsel and other technical services. In the field of high-end science, the transformation of scientific research results often starts from the establishment of the topic. In the field of high-end technology, it is difficult for a team to achieve perfection. The third-party technical service platform born from this can provide a good technical support service platform for the majority of scientific research workers to ensure the smooth progress of the research and development stage in particular.

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