Retraction

Retraction: Application Research of Software Engineering Technology and Algorithm Optimization in the Era of Big Data (J. Phys.: Conf. Ser. 2083 042021)

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This article has been retracted by IOP Publishing following an allegation that raises concerns this article may have been created, manipulated, and/or sold by a commercial entity. In addition, IOP Publishing has seen no evidence that reliable peer review was conducted on this article, despite the clear standards expected of and communicated to conference organisers.

The authors of the article have been given opportunity to present evidence that they were the original and genuine creators of the work, however at the time of publication of this notice, IOP Publishing has not received any response. IOP Publishing has analysed the article and agrees there are enough indicators to cause serious doubts over the legitimacy of the work and agree this article should be retracted. The authors are encouraged to contact IOP Publishing Limited if they have any comments on this retraction.

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Application Research of Software Engineering Technology and Algorithm Optimization in the Era of Big Data

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Abstract. Starting from the overview of technology of big data and software engineering technology, this paper discusses the core technology of software engineering and the application of software engineering technology. In order to better follow the development trend of the times and promote social and economic construction, it is necessary to do a good job in the research of software engineering. Relevant people can analyze the application of software engineering technology from the perspective of digital information based on the background of the times, so as to promote the continuous improvement and development of software engineering technology.

Keywords: big data era; software engineering technology; application strategy.

1. Big data and software engineering technology

The earliest proponent of big data was McKinsey, a world-renowned company, which said "data has penetrated into all industries and fields and has become an important factor in production. Mining and using lots of data shows that a new round of productivity growth and consumer surplus is coming". Besides, it also shows that big data is an inevitable trend. In today's era, we are producing big data in the process of daily life. Then it can be said that mankind has entered the era of big data.

As we all know that, different people have different definitions of software engineering technology. At the NATO conference, Fritz Bauer gave the definition of a software operation method that establishes and applies perfect principles of engineering so that the software could run efficiently on the actual machine with less financial resources. While a generally accepted definition holds that software engineering technology is to study and apply how to use systematic, standardized and quantifiable process methods to develop and maintain software, and combine the correct management technology proved by time test with the current best technical method. In short, software engineering technology involves many fields, and the research methods are also diverse, which are applied in all aspects of today's society.

With the development of the times and society, people know more and more about big data and software engineering technology. And it is necessary to apply software engineering technology to reduce costs because a lot of financial resources are required in the process of collecting, computing and processing big data.
2. Core technology of software engineering based on big data Era

2.1. Software service engineering
The so-called software service engineering technology belongs to the main direction of service-oriented development of software engineering. In recent years, the service demand for software engineering technology is also increasing with the accelerating development of modern society. Therefore, in the process of software development, we should start from the perspective of playing a service role, which can be closely integrated with the user's service needs, and develop software targeted. Moreover, in the era of big data, software developers should also be based on reality and provide users for more services through virtual operation with the help of the characteristics of distributed applications and virtualization software.

At the same time, in the application of software engineering technology, the software could achieve the goal of mutual operation through the programming of network data, also ensure its strong adaptability to dynamic scene changes, and promote the overall improvement of software system integration.

2.2. Service engineering of crowd-sourcing software
The core of service technology of crowd-sourcing software is the processing of data information, so it is also the core of development of big data. At the moment, data intensive information and streaming data are mainly used to build a complete data processing system. Therefore, the substantial improvement of applicable abilities could really carry out the application value of big data in life practice. Furthermore, the core content is data intensive information. So in the algorithm for data, relevant staff need to be able to scientifically modify the algorithm, so that they can conduct a comprehensive analysis of the original data.

3. Application analysis of software engineering technology in the era of big data

3.1. Collecting data information
It is understood that the basic development of big data is the collection of data information. Similarly, in software engineering technology, the collection of data information is also a key part. In the era of big data, we are able to apply software engineering technology to collect and sort out the existing data information and improve the coordination ability of various software, then establish a standard space for data information storage. In the process of using, you could also simply process and process the data information according to the needs of users, then delete the redundant part, as well as improving the efficiency of big data processing and reducing the information collection cost of big data.

3.2. Storage of data information
In the era of big data, the unit of data information is not only G or T, but has reached the order of ZB and is advancing. Then in the process of line data information storage, the data information is no longer a simple text form, but a community of data information composed of text, image and video. Therefore, in the process of data information storage, we have to contact a large amount of information, which poses a great challenge to the performance and storage space of the computer. And the process is also easy to cause the lack of information. The application of software engineering technology can greatly save the storage space of data information, together with preventing the loss of data information and improve the security of data information storage. Through the application of software engineering technology, cloud
technology is used to store data information in the cloud, which greatly saves computer space, and can store more data information to help us improve production efficiency.

3.3. Using big data for construction of software service engineering
In the research field of software engineering technology, the development direction of software engineering technology has also changed with the increasing number of software service projects. According to different software engineering development objectives, service contents should be adjusted to improve the service level of software engineering technology. Under the background of the application of software engineering technology, we should apply it in combination with technology of big data and program the network data to make the software operable. For data coordination, it should be consistent with the rhythm of change of dynamic scenes, and improve the integration of software engineering system.

3.4. Scientific application of information security technology
It must be admitted that technology of big data makes the correlation between data bigger and bigger. In fact, the greater the connection between data, the more serious the interference and influence it is. Therefore, in order to ensure the security of data, it is necessary to manage the data system scientifically and effectively. With the development of computer network technology, problems of network risk occur frequently, then more and more hackers appear, and many illegal personnel use technology of big data to have dangerous accidents, resulting in more risks in data storage and analysis. Therefore, based on the era of big data, the development and research of software engineering technology would be an important way to ensure data security and reliability.

3.5. Improving the level of software engineering construction
At present, with the rapid development of technology of big data, data information also presents the characteristics of complexity and mass, and the data structure is becoming more and more complex. Moreover, compared with the traditional form of data, in the context of big data, the relationship between data is becoming closer and closer. Nowadays, software engineering technology can not better analyze and process data in real time in the application process. Therefore, in the future development, we still need in-depth research and exploration. In addition, in the era of big data, when software engineering technology is used, it also provides new opportunities and new directions for enterprise innovation exploration, which can make technology of big data well optimized and improved, so as to redefine software engineering technology and comprehensively promote the process of software engineering construction.

4. Combination of big data and software engineering
The premise of application of big data is to have a complete chain of data, which is also the basis for continuous data processing using algorithms. The algorithm also achieves the purpose of upgrading according to the continuous improvement of data, so as to realize the application of massive data. By further combining big data with software engineering, data sharing can be completed in a more favorable environment, and the development level of software engineering can be improved.

Due to its universality, software development can realize the integration of multiple industries and promote the coordinated development of multiple fields through relevant technical means. In various fields at this stage, big data has been widely used. And the video industry is the most typical example of software development based on big data. By analyzing
and judging the data used by users, we can recommend the video content that best meets the needs of users. At the same time, the optimization of big data and software itself also has a very effective help. With the support of big data, we could simulate various states of operation, so as to continuously find the loopholes and find out the problems in the most concise way, as well as realizing the smooth operation of the software system among users.

5. Development direction of software engineering technology in the era of big data
Intelligence is the main development trend of science and technology at this stage. At present, the relationship between intelligence and big data is inseparable, and software engineering needs to be used as the medium. Therefore, in the software engineering industry, it is necessary to continuously realize the improvement of technology. While in the research and development of software intelligence, it is a must to take a greater number of and more accurate data as its fundamental support. What’s more, in the foreseeable future, big data will be more accurately integrated with software engineering development, including not only the upgrading of the technical level, but also the adjustment of the direction of technical products and the integration of data logic. Combined with the situation analysis, it is necessary to make full use of the characteristics of big data, so as to realize the intelligence of market prediction and actual experience of users, and continuously improve economic benefits.

6. Conclusion
With the development of the times and society, people are creating a lot of data information every day. And data information has ushered in a blowout development, while people have entered the era of big data. Then, in the era of big data, the processing of data information consumes a lot of economic resources, which requires us to effectively apply software engineering technology to reduce the storage and processing cost of data information in the era of big data. We need to use software engineering technology to collect and store data information, also carry out software service engineering construction, as well as ensuring the safety of data information, and then promote the development of software engineering technology and software engineering construction.

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