

Intelligent Feedback Analysis of Higher Engineering Training Mode Based on Real-Time Capture and Mining of Network Forum Data

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Abstract: Aiming at the fact that the traditional method ignores the temporal information and correlation contained in the event time series in the process of prediction, a network hotspot event heat prediction model based on the EKSC algorithm is proposed. The framework will distinguish the content information and relationship information of social networks, fetch, and store them in a targeted manner, and form a feedback mechanism between fetching and storing, which supports developers to expand business-related dynamic fetching strategies. The practice teaching mode is constructed from the aspects of the practical teaching link and the evaluation system, and a practical teaching course system of "one main line, two channels and three stages" is proposed, and it is recommended to combine different learning stages and courses to use inquiry learning.

Keywords: Intelligent Feedback Analysis, Higher Engineering Education Teaching, Real-Time Capture, Network Forum Data

1. INTRODUCTION

With the rapid development of the Internet, the Internet has become a distributing center of ideological and cultural information and an amplifier of public opinion, and network public opinion has become a real-time barometer that reflects the situation of social public opinion [1]. The formation and development process of online forum topics is the process of dissemination from a few people to a large number of people under the action of interactivity, that is, advanced users (opinion leaders) take the lead → intermediate users' feedback → ordinary users click and browse [2]. Senior users, as representatives of the main body of the forum, have a large number of posts. For SNS websites of the type "Sina Weibo", each "Weibo" is limited to 140 characters, allowing users to use various types of terminals, more emphasis on immediacy, efficiency, and flexibility [3].

Whenever there are important social emergencies, "Weibo" often becomes the first publishing platform. Practice is the essence of engineering, and practical teaching, as an important part of engineering education, not only cultivates students' engineering quality and scientific quality [4] but also for Cultivating students' cultural quality and physical and mental quality plays an irreplaceable role. Practical teaching also plays a unique role in cultivating students' innovative ability [5]. The CDIO reform model is a reform practice involving many countries. It was established by the joint exploration and research of four universities including the Massachusetts Institute of Technology. It is the latest achievement of international engineering education reform in recent years.

The international professional certification standards are "student-centered", "output-oriented (OBE)" and "continuous improvement" as the core concepts, requiring all educational activities to be oriented around the graduation requirements for cultivating students and the training goals for five years after graduation [6]. In the international mutual recognition system of engineers, the Washington Accord is the most authoritative and international. In 2006, China's engineering education professional certification work officially began, and

it has become an important measure to build my country's higher engineering education quality monitoring system and improve the teaching quality of engineering education [7]. Management measures will most likely affect the harmony and stability of society.

In recent years, the research and supervision of online public opinion has been highly valued by the party and the state. It has a strong influence, and its posts receive a high degree of attention (such as the number of clicks and replies) [8], which is the so-called hot post. This dissemination process enlightens us, if we can predict the popularity trend of online forum topics from the time series formed by the number of post clicks (or the number of replies) [9]. Clustering Non-overlapping Community Discovery Algorithms", these studies all emphasize that social networks are different from ordinary Internet services, and they pay more attention to the relationship between users [10].

In recent years, more and more scholars in our country specialize in teaching models [11]. In the article "Representations, Causes and Countermeasures of the Homogenization of University Teaching Models in my country", Han Hongwen proposed that my country's university teaching models show a tendency to homogenize [12], which is mainly reflected in the knowledge-centered teaching concept, so that students know how to play in a modern team. Con-ceive, design, implement and operate complex, high-value-added engineering products, processes, and systems in an environment, mainly described through the CDIO syllabus and standards" [13].

The professional certification standard of engineering education requires college students not only to have a solid theoretical foundation and professional knowledge, but also to have the ability to analyze problems [14], solve (design and develop) problems, and research problems by using professional knowledge and modern tools. The degree of participation (such as the number of reports, comments, retweets, etc.) is an important measure to measure the

popularity of network events, and these measures are presented as a time series over time [15].

In addition, it introduces the key technical means of using an open platform for social network data capture—“authorized access” and “open API”. This method brings many drawbacks [16]. To determine which posts are popular, you can mine potential potential posts based on predictions. Advanced users, and then realize the management and analysis of online forums through the analysis of advanced users [17]. There are two main aspects: one is the development and maintenance costs brought about by the dynamics and complexity of the social network itself, and the second is the permission restrictions brought by the use of OpenAPI [18].

2. THE PROPOSED METHODOLOGY

2.1 The Real-Time Capture and Mining of Online Forum Data

In real life, people's participation in network events (such as the number of reports, comments, forwarding, etc.) is an important measure to measure the popularity of network events, and these measures are presented as a time series with the change of time. In this paper, wavelet transform is used to transform the time series formed by the number of clicks (or replies) of a post, and the transformed low-frequency and high-frequency wavelet coefficient values are obtained. Each wavelet coefficient is evaluated according to the time series of the training set (including hot posts and non-hot posts).

When the user relationship to be crawled is determined and the content is crawled, it can be considered that the crawling strategy indirectly affects the crawling of the content. The grabbing subsystem will grab these two kinds of information separately and store the content-oriented data and relational data separately. Events are generated at a specific time and place by a series of reasons and conditions and are generated for a certain group of people. It is manifested in a series of reports and documents related to it. Mallet [3] gave a pyramid algorithm for fast decomposition of wavelet coefficients on the basis of MRA and constructed a high-resolution method for wavelet decomposition and reconstruction., a low-pass filter bank, which greatly simplifies the calculation of wavelet coefficients.

Provide application-oriented encapsulation for specific applications. In the social network data mining system Social Fetcher, it provides encapsulation for social network data capture provides incremental capture mechanism, configurable parameters, exception recovery mechanism, and some general components It is convenient for users to write and log in. There are many decomposition methods for non-stationary time series. Empirical Mode Decomposition (EMD) [16] is a signal processing method proposed by Huang et al. of NASA. The essence of this method is to smooth the signal.

2.2 The Computer Distance Education in Higher Vocational Colleges

Engineering education certification requires that university education must adhere to the principles of “student-centered” and “output-oriented” and carry out “continuous improvement”. That is, guided by the professional training goals and graduation requirements, all teaching activities and professional construction should be centered on how to make all students achieve this goal and ability requirements. Comprehensive exploration experiments can promote students to analyze and think more about problems. Useful for the application of knowledge. However, due to the outdated

teaching methods, students' initiative, enthusiasm, and creativity are limited, and they have been in the dilemma of passive practice for a long time.

Teachers and students are the core subjects involved in CDIO reform. The teaching effect is divided into two levels: “the effect of students' learning”. Students occupy the main position in teaching, and their active participation in teaching and learning effect are one of the important signs to measure the success or failure of reform. Teachers are the main body of teaching activities, and in most in this case, the theoretical knowledge of the textbook is just blindly taught rigidly, and the students' thinking moves along the pre-determined “travel route”. Due to the lack of innovative consciousness and enlightening education, the scientific paradigm became the mainstream of the scientific paradigm. The mainstream paradigm of engineering education in the United States. The scientific tendency of engineering education has led to the gradual blurring and weakening of engineering education. Engineers began to reject the scientization of engineering education. my country's “Engineering Education Professional Accreditation Standards (Trial)” stipulates that “practice links and graduation projects (thesis) are about 25% of the total credit arrangements” in the curriculum system. Although some engineering colleges can set up 25% of the practice links according to the standard requirements, in the process of specific implementation, the reform involves all aspects of the entire engineering education reform. For schools in different countries, different levels, and different specific situations, there may be positive reference.

2.3 The Intelligent Analysis of Feedback for Teaching Mode of Higher Engineering Education

The production process of enterprise products includes users generate needs, but the traditional classroom teaching mode has many problems or defects, which makes it difficult to meet the quality and ability training needs of college students for professional certification. The first is cramming indoctrination: students are always in a passive state, and teachers are not able to “student-centered” and “output-oriented (OBE)” in accordance with professional certification. With economic globalization and the worldwide technological revolution with the rise, all countries have adopted corresponding strategic plans and measures to deal with new opportunities and challenges. Developed countries such as the United States, the United Kingdom, and Germany gain profits by occupying the commanding heights through technological innovation. This process is inseparable from the technical talents cultivated by engineering education.

Teachers and students are the core subjects involved in CDIO reform. The teaching effect is divided into two levels: “students' learning effect”. Students occupy the main position in teaching, and their active participation in teaching and learning effect are one of the important signs to measure the success or failure of reform. The CDIO model emphasizes students' active learning, which is It helps students to learn more things and improve their motivation to learn, so as to achieve the expected learning effect and form a habit of lifelong learning. Taking the teaching of the “automatic control principle” course as an example, firstly, teachers and students learn the teaching content system, Supported graduation requirements basic points and course objectives, etc.

In view of the abstract and difficult to understand characteristics of this course, in the process of teaching related

control theory, often ask questions and inspire thinking, and guide students to connect abstract control theory with things or objects related to students' life or study. Standardized practice link. The project begins in September and is completed in May of the following year, covering a total of 1200 to 1500 hours. Practical aspects of the clinical program include assignments, orientation days, design reviews, project days, and field trip sponsors.

3. CONCLUSIONS

This paper proposes a crawling framework based on the characteristics of social networks. The framework treats social network content information and relationship information differently, provides general capture and storage support, analyzes its main problems, and focuses on the "student-centered", "output-oriented" and "continuous" engineering education professional certification standards system. Based on the concept of "improvement", put forward the reform direction and ideas of college classroom education mode: the traditional classroom teaching mode is transformed into the teaching mode reform ideas of dialogue classroom, open classroom, full stop classroom and ability classroom, and dynamic feedback is formed between capture and storage.

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