The Application of Big Data in the Political and Computer Education of Colleges and Universities

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Abstract. With the advent of the era of big data, information acquisition methods such as short videos have become more abundant. The changes in these methods have directly brought huge and revolutionary ideological changes to people's study, work and life. Based on the background of the era of big data, this article analyzes the most vulnerable ways of obtaining information for college students in ideological activities. Secondly, it discusses the characteristics of ideological and political education and computer education in the era of big data. Finally, use big data tools to strengthen and clarify the educational direction of college students.

Keywords: Big Data, Ideological and Political Education, Colleges and Universities

1. Introduction

With the advent of the Internet era, the application of big data is spreading across all aspects of our lives. It is no exaggeration to say that big data has gradually changed the pace of life, way of thinking and living habits[1-2]. An important support point for innovation [3-4]. At the beginning of 2008, the Douyin App was completely popular all over the country. According to data from QuestMobile, during the Spring Festival alone, Douyin accumulated nearly 30 million DAU, and the highest daily activity reached an astonishing 67 million. Looking back at the development history of Douyin, it was only discovered by more people from its launch in September 2016 until mid-March 2017 [5-6]. In just one year, the Douyin App has sprung up. If we dig deeper into the reasons for the rise of Douyin short videos, it is not difficult to find that Douyin's big data computing method based on user behavior and habits allows it to firmly grasp the user's attention, and thus stand out from the many short video references and grow rapidly. This article analyzes the short video outbreak in the era of big data (taking Douyin as an example) for reference to ideological and political education and computer education.

2. Douyin model innovation

2.1. Novel model and rich content

Different from the operation of other short video apps, Douyin is positioned at these young customer groups after 90s and 00s, which is in line with the temperament of young people now. They love to play, are willing to express themselves, but also let go, pursue individual psychology, and want to get More identity. Douyin marketing tends to content marketing, appearing in the public eye with a
high-definition, high-quality image. Under the new media content format, the content of Douyin short videos is more vivid, rich and interesting. And the operability is getting stronger and stronger, a good idea, an interesting convenience, you can get a lot of likes and attention, and according to different content, there are different topic challenges to meet the attention needs of various user groups.

2.2. Form innovation, experience first
Just like Douyin’s slogan “Tik Tok, record your beautiful life”, Douyin, pays more attention to user experience, from the original one-way marketing to user independent marketing, and combines current trends and hot spots. Potential promotion. In this app that integrates music, images, and videos, users are no longer spectators in the traditional sense, but can also participate in it. With only a piece of music, they can record their own stories, which is simple and convenient, and has a strong operation. Sex. In addition, there are activities such as topic challenge projects, and comments under the video have become a kind of community interaction, which makes users have a strong sense of participation. Douyin realizes all-people interaction through a short 15-second video. This zero-cost creative method inspires young people to release their acting talents.

2.3. Accurately locate user needs
Douyin has achieved precise positioning in the push of user content. The positioning of user needs has evolved from traditional brand communication to accurate to individuals. While enriching content, it uses personalized recommendation algorithm technology to enrich content through analysis of video traffic. According to the user’s click video type, browsing time and other behavioral data information, mining and analyzing, analyze the user’s preferences, content preferences, etc., and pinpoint the needs of the individual to implement personalized customization and recommendation services. For example, push related types of videos according to users' interests, even including advertisements. In this way, users can find their own value demands. Realize the true personalized precision marketing.

2.4. Strong timeliness and high predictability
The user's attention cycle is short and the timeliness is strong. The content and form of Douyin's push will also dynamically adapt and change with the changes in the data, thus becoming more flexible, not only oriented by the user's needs, but dependent on In the current hot spots, combined with its own advantages, find the landing point of user needs, thereby enhancing user stickiness.

3. Ideological and political and computer characteristics

3.1. Digitalization of teaching resources
Nowadays, traditional ideological and political education methods can no longer meet the increasing cultural needs of current college students, and their limitations are becoming increasingly prominent when leading college students in thought. Teaching resources such as paper materials are difficult to be used in a wide range of actual teaching process, and students' sense of independence is constantly increasing and showing a diversified trend. The transformation of education mode is imminent. Big data technology provides us with extremely rich network data resources, which is unmatched by traditional teaching resources.
3.2. Dynamic trajectory of thought

College students are a group with extremely active self-awareness among members of society. They most hide their thoughts and conceal their words and deeds. Therefore, relying on sample sampling and analysis to understand students’ thinking dynamics, it is difficult to fully reflect the true thoughts of students and all students Changes in thought dynamics. Using big data analysis, counselors and teachers can provide more personalized services according to the different personality characteristics of students, starting from the students’ own needs and consciousness structure, and addressing the various ideological contradictions and problems of various educational objects in a targeted manner.

3.3. Comprehensive teaching methods

With the advent of the era of high-speed information flow, the channels and number of students receiving information have increased significantly. In the classroom, teachers no longer carry out pure theoretical indoctrination as before, but use network information technology platforms to understand students’ learning progress and living conditions, etc., and then arrange teaching content according to the different actual conditions of the target group, and change the teaching at any time Methods to improve teaching effectiveness.
3.4. Networking of extracurricular communication

College counselors and students can communicate in time through the online teaching platform. When students have questions, they can get answers in time from the counselor, anytime, anywhere, and improve the communication effect of students. Counselors can also use the online teaching platform to grasp the student's life dynamics, learning progress, etc., and communicate with problem students in a timely manner through the Internet. Reduce the psychological pressure of face-to-face communication to students, it can do a good job of comforting and guiding in time.

4. University ideological and political and computer breakthrough exploration

Using the powerful analysis and prediction functions of computer education in colleges and universities can deeply explore and analyze data such as students' social habits, life schedules, library borrowing records, etc., and understand each student's personal preferences from the details of life. The database formed by the collection of these data, through the collection and calculation, establishes the students' personal data, habits, personality characteristics and other files. Form an intuitive and effective visualization chart, so that you can better implement personalized education models and achieve better ideological and political education.

Targeted evaluation and guidance for each student’s file:

\[
A = \begin{bmatrix}
  x_{11} & x_{12} & \cdots & x_{1m} \\ 
  x_{21} & x_{22} & \cdots & x_{2m} \\
  \vdots & \vdots & \ddots & \vdots \\
  x_{n1} & x_{n2} & \cdots & x_{nm}
\end{bmatrix}
\] (1)

Like Douyin App focuses on user experience, interactive participation is an important marketing tool in the context. How to fully mobilize the enthusiasm of students and make students feel more involved becomes an important proposition. Students’ thoughts and behaviors often undergo many changes before there are abnormal signs. In this case, if the counselor cannot find the students’ ideological problems in time and provide correct guidance, adverse events are likely to occur. Unlike the previous ideological and political education, where human resources are relatively scarce, records, and analytical techniques have limitations, the time and forms of interaction between counselors and students are now rich and diverse. For example, nowadays students often express their views on current events on social platforms, and some inappropriate remarks will inevitably appear. Counselors can discover students' ideological problems in time through browsing and follow-up communication, and give correct guidance to stifle students' bad thoughts in the embryonic stage.

Every college student is different. Therefore, under the new situation, college ideological and political and computer educators can no longer evaluate each university student with a unified standard, nor can they educate each university student with a unified education method. We can use big data analysis technology to conduct a diversified assessment of each college student. Collect student activity information through the campus big data system, integrate these single scattered small data information and apply big data calculations, transform from simple quantitative analysis to qualitative analysis of all data, and build a long archive of university under the data analysis model.

Counselors can track the life dynamics of college students in real time carry out in-depth exploration, and can quickly understand the trajectory of college students' thoughts, thereby maximizing their true ideas.

5. Conclusion

The success of Douyin has triggered national colleges and universities to think about big data. From the Internet to mobile. This paper analyzes the information acquisition of college students through emerging products such as Douyin based on big data, and explores the characteristics of ideological and political education and computer education, and on this basis, uses big data tools to strengthen the education direction of product big data.
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