

A Study on the Psychological Promotion Path for College Students Returning Home for Employment Based on Big Data

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Abstract: Big data plays an increasingly pivotal role in the realm of employment. By leveraging the Internet, the psychological trends of college graduates in the job market can be analyzed to discern patterns and provide valuable insights for future initiatives. College counselors, utilizing an Internet-based approach combined with big data technology, deliver mental health education to students, fostering both their online ethical standards and psychological resilience. This approach also facilitates comprehensive tracking and guidance of students' mental well-being throughout their academic journey, thereby enhancing the quality of mental health services. This paper seeks to explore viable solutions and delves into the research on pathways for psychological enhancement among college students seeking employment in their hometowns, driven by big data, to meet the employment demands that promote economic equilibrium and empower students to thrive and realize their potential.

1. Research background

The advent of big data technology signifies the onset of the information era, heralding new possibilities for academic research, industrial advancement, and societal management with its vast, rapid, and multifaceted data capabilities. Big data technology is extensively utilized across a wide range of industries, from power grid operations to delivering premium services, and from education to healthcare. Its expanding application continues to create new roles and opportunities within related employment sectors. In the educational domain, big data technology allows for a profound analysis of students' learning behaviors, emotional states, and psychological trends, offering a scientific basis for informed educational decision-making. Throughout various stages of career and academic development, the deployment of big data technology enables effective digitization, integrating campus videos, charts, and other information, thereby providing invaluable reference data for college students' career planning ^[1].

Amid escalating social competition and mounting academic pressures, psychological health issues such as anxiety and depression have emerged as critical barriers to the holistic development of

students [2]. The origins of these psychological challenges are often intricate, with complex social dynamics and the unpredictable nature of student psychology posing significant challenges to various university functions. Additionally, family economic circumstances profoundly influence students' employment choices, impacting their willingness to contribute to and seek employment in their hometowns. Consequently, the strategic application of big data technology to establish a contemporary psychological health education system for college students is crucial. Such a system not only effectively mitigates psychological risks and ensures student safety and stability but also provides a comprehensive analysis of employment trends among students [3]. This approach fosters their overall development and psychological well-being, enhancing employment guidance services and promoting initiatives like the Western Development Plan.

In the contemporary era of big data, the student psychological development model, built upon big data analytics, offers robust theoretical and data-driven support for the education and development of a broader student population [4]. Concurrently, this system integrates various sectors including school education, administration, services, and student support into a comprehensive framework for psychological education. This integration establishes an interdependent, mutually supportive, and regulatory development mechanism that significantly enhances the overall environment, encouraging widespread attention to the psychological health of college students. It facilitates the effective implementation of moral education, thereby empowering students to grow, flourish, and achieve their full potential.

As teaching reforms progress, traditional mental health education in colleges and universities is increasingly inadequate to meet the evolving needs of students and society. The rapid development of the Internet has highlighted the diverse personalities of contemporary college students and led to an exponential growth in data. Given these characteristics, enhancing the modern educational system, updating teaching philosophies, and innovating teaching methodologies are crucial steps to fostering the physical and mental well-being of college students. In the context of big data, establishing a comprehensive mental health education system requires the development of a university big data analysis platform. Such a platform can aggregate and analyze vast amounts of data generated by students through academic and social media channels, thereby providing a robust scientific foundation for effective mental health education.

2. "Internet + mental health" enables college students to grow and become talents

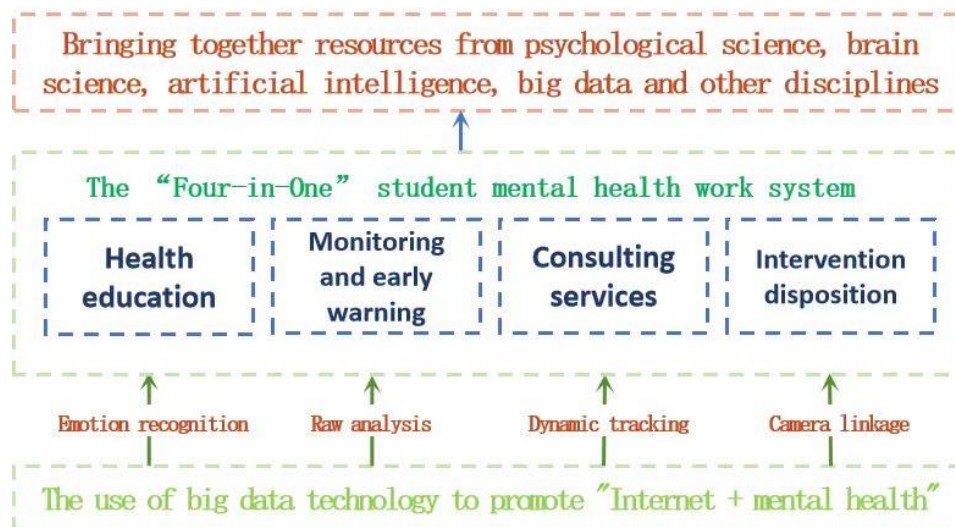


Figure 1 Implementation Roadmap of Mental Health Education in Colleges and Universities

Integrating big data with methods such as course emotion identification, analysis of student data sources, dynamic tracking of counseling subjects, and campus camera integration ensures a holistic focus on mental health throughout students' developmental journey. Figure 1 These four key research areas, enhanced by information technology, build upon the "four-in-one" student mental health work system and encourage interdisciplinary collaboration. This approach combines resources from psychological science, brain science, artificial intelligence, and big data to create a practical and scalable implementation pathway for student mental health initiatives.

In the era of big data, the implementation path of mental health education in colleges and universities empowers college students to grow and become talents (Figure 1)

This paper examines the seamless integration of big data technology with mental health within the framework of the "four-in-one" system to maximize the impact of college education. The distinct features and innovations of this project are primarily reflected in the following aspects:

It comprehensively explores the application of big data to address both inherent and subsequent mental health challenges faced by college students. By analyzing student demographics, including family economic status, social structures, and past academic performance, big data can be utilized to conduct in-depth research and establish reference indicators for assessing college students' mental health, facilitating subsequent interventions. Through the implementation of classroom emotion recognition, dynamic tracking of psychological counseling, and integration with campus security monitoring, a comprehensive mental health data platform for college students is established, leveraging big data technology.

To harness interdisciplinary integration effectively, biological signals are fully utilized. Throughout students' developmental phases, pertinent data such as academic performance, financial expenditures, participation in school activities, and attendance rates are continuously gathered and updated. Information technology is then integrated with psychological expertise to analyze and evaluate students' psychological trends, serving as a basis for intervention and crisis prevention.

Additionally, an innovative online and offline dual mental health service model is introduced. This model incorporates the OTO (online to offline) education approach into mental health education at universities [5], offering a combined online and offline educational framework. This integration aims to serve as a model for enhancing the efficiency of mental health education for college students.

3. Big data enables college students to return home for employment

In the age of big data, college students encounter new challenges in employment, such as information overload and rapid skill obsolescence. Simultaneously, new strategies emerge, leveraging big data for career planning and employment guidance. Big data technology enables the creation of a precise employment service system for college students, enhancing the efficiency and accuracy of employment services through comprehensive data analysis and information resources. The necessity of big data analysis in the job market extends beyond technical applications to encompass policy support, educational system adaptation, market demand dynamics, and the provision of targeted employment services. As big data technology advances, employment prospects in related fields expand, driving sustained growth in demand for skilled professionals.

Big data technology significantly impacts the field of employment for returning migrants. Initiatives led by the National Development and Reform Commission and other agencies encourage and support pilot programs for migrant workers returning to their hometowns to initiate businesses. These efforts integrate policies, projects, and market resources to foster a sustainable pattern of entrepreneurship in rural areas, thereby stimulating employment, enhancing rural industrial prosperity, and promoting overall rural revitalization. In this context, big data is utilized to monitor the employment status of college graduates returning to their hometowns. It analyzes their intentions for

re-migration and the directions they choose, providing essential insights for employment guidance services at colleges and universities. This data-driven approach ensures informed decision-making and effective support for returning labor forces in their career pursuits.

Utilizing big data technology to establish a precision employment service system for college graduates enables a seamless alignment between job supply and demand, facilitating accurate employment guidance and optimal job-person matching. Recent big data analyses reveal an increasing trend among college graduates opting to return to their hometowns for employment, particularly in non-first-tier cities and grassroots positions. Female students and graduates from eastern regions exhibit a stronger inclination towards returning home for work. The attractiveness of hometown employment for college graduates is significantly influenced by factors such as the economic development level, job opportunities, and living conditions of their hometowns. This data-driven insight underscores the importance of understanding local economic contexts and living environments in effectively guiding employment decisions for college graduates.

The comprehensive application of big data technology facilitates clear insights into returning employment information, thereby advancing the employment and entrepreneurial opportunities for returning individuals and contributing to rural revitalization and regional coordinated development [6]. Many governments leverage analysis results to introduce supportive policies, offering preferential measures such as tax incentives, financial aid, and targeted employment opportunities to attract talents back to their hometowns for employment and entrepreneurship. Furthermore, regions nationwide are enhancing infrastructure development, including national rural industry integration and development demonstration parks, and pioneering countryside return parks. These initiatives aim to create a conducive environment for employment and entrepreneurship, promoting new urbanization centered around county seats. This strategy enhances the overall capacity of counties in terms of population, industry, and employment, fostering a favorable environment for returning employment and entrepreneurial activities.

4. The psychological promotion of returning home

Returning employment refers to the trend where individuals who have left their hometowns for work or study in other areas come back to pursue careers in their hometowns. This return not only fosters personal career advancement but also significantly aids in the economic growth and social progress of their local communities. Current statistics indicate that the overall number of college graduates returning to their hometowns for employment remains insufficient. By leveraging big data to analyze the underlying reasons and implementing targeted strategies to encourage this movement, we can enhance the trend of returning employment. Here are some essential points and recommendations:

Firstly, returning home for work is influenced not only by economic considerations but also by personal psychological factors such as a sense of attachment to one's hometown, the desire for job stability, and career growth aspirations. To promote employment among returnees, a comprehensive set of initiatives can be developed, including entrepreneurship guidance, vocational training, and employment services. The government can offer tax incentives, start-up subsidies, and employment guarantees to encourage returnees to seek employment or start businesses. Additionally, colleges and universities can provide one-stop employment services, encompassing career counseling and job placement assistance, to help returnees swiftly find suitable job opportunities.

Secondly, from a social infrastructure perspective, enhancing rural infrastructure, improving the quality of life, and creating a favorable working and living environment are crucial to attracting more individuals to return home. From an educational and training standpoint, it is essential to bolster vocational education and skills training for returnees to boost their employment competitiveness.

Regarding information platform development, establishing platforms that provide employment information, entrepreneurship guidance, policy consultations, and other services will help returnees better understand the job market and available opportunities.

Thirdly, it is important to encourage community involvement in promoting return employment, helping returnees integrate into local society through community support and providing necessary assistance. Government departments should enhance cooperation to form a concerted effort in advancing the work of returning employment. Furthermore, the implementation of returning employment programs should be continuously monitored and evaluated to ensure their effectiveness, with adjustments and optimizations made based on actual outcomes.

Finally, at an ideological level, fostering a psychological identification with returning home for employment is crucial. Through media campaigns and other avenues, we can enhance societal recognition and respect for returning workers, reducing the social prejudices they may encounter and strengthening their sense of social identity. It's important to cultivate a deep connection with their hometown among college students and other groups, igniting a love and sense of belonging that encourages them to return for employment. Incorporating career planning into educational curricula can help students understand the evolving landscape of rural employment and reinforce their professional self-identity.

5. Big data provides a new methodology for returning home employment

The integration of psychology focused on returnees with big data methodologies typically involves leveraging big data technologies to analyze and comprehend the psychological states, behavioral patterns, and decision-making factors of individuals returning to their home country. This research approach can provide valuable insights for governments, businesses, and academic institutions on how to better support these individuals. Here are key aspects outlining the synergy between homecoming psychology research and big data methodologies:

Big data technologies enable the collection of information from diverse sources, such as social media, online forums, search engine queries, and mobile applications. This data can reveal discussion hotspots, emotional trends, and behavioral patterns among returnees. Text mining and natural language processing techniques are employed to analyze the language used by returnees, allowing researchers to gauge their emotional states, whether they are optimistic, pessimistic, or neutral.

Analyzing the online behavior of returnees, including their search history, shopping habits, and location data, allows for the identification of behavior patterns and preferences. Utilizing machine learning algorithms enables the discovery of key factors influencing their decision-making, such as economic opportunities, family dynamics, and quality of life. Time series analysis and other methodologies predict behavioral trends among returnees, serving as a foundation for policy development and resource allocation.

Evaluation of network data before and after return assesses the impact of current policies on the psychology and behavior of returnees, offering insights for policy adjustments.

Based on the findings from big data analysis, tailored services and assistance can be offered to returning individuals, including vocational training, psychological counseling, and entrepreneurial guidance. Adherence to data privacy laws and regulations is crucial when employing big data for psychological research on returnees, ensuring the security and confidentiality of personal information. The intersection of homecoming psychology research and big data methodology is an interdisciplinary endeavor encompassing psychology, sociology, data science, computer science, and related fields. Through empirical data analysis, theoretical hypotheses can be validated, yielding insights into the psychological states and behavioral patterns of returnees.

In summary, the integration of homecoming psychology with big data methodology presents a

novel approach and toolset for comprehending and supporting returnees, facilitating a more precise understanding of their needs and challenges.

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