Thinking and Practice of Medical Student Management Based on Internet +

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Abstract. In the information age, the management of college students is also facing an important opportunity of transformation and upgrading. Traditional medical students’ management is faced with the difficulties of quality control data fragmentation, quality control data initialization and incomplete quality control data. With the help of Internet technology, data collection is more convenient. Through the sharing of data, data analysis can make student management more personalized, proactive and accurate. In practice, with the help of mobile phone QR code technology, we can realize the timely management of students’ attendance management, education information dissemination and education activity evaluation [1-2]. With the help of big data technology, we can realize the precise and individualized management of the students' precise aid, academic warning, and personal "portrait" and so on so that data can serve the students' development.

Keywords: Internet, Student management, Practice exploration, big data

1. Introduction
With the advent of the information age, the traditional industry is undergoing profound changes. In the field of higher education, the traditional student management based on "management" is also facing transformation and upgrading [3]. In the new era, by means of modern information technology on the Internet, personalized, accurate and active education management will better serve the healthy development of students [4-5]. It is an inevitable choice to improve the training quality of college students in order to adapt to the development of technology in the information age and to meet the needs of education quality improvement.

2. The dilemma of the management of traditional medical students
(I) The fragmentation of quality control data and the passivity of education management. In the traditional management of medical students, the management of students belongs to different
departments according to their functions, and the corresponding management data is also divided into different departments. The data on students' professional learning content and academic achievement are attached to the academic affairs department while the data on second class activities are attached to the Youth League Committee, the data on financial aid and mental health are attached to the student affairs department, and the data on accommodation and consumption are attached to the logistics department, etc. So the data are separated from each other and there exists lack of contact between the data. Different departments will have to extract data according to the needs, which will make their work more passive.

(2) The quality control data is primitive and the education service is insufficient. In the traditional student management, there is few data analysis, and the data is in the original state, which is disadvantageous to the function of prediction and improvement. In the previous data application, there was more data analysis on enrollment data and students' scores, but there was less or no analysis on the emerging data, such as financial aid, psychology, consumption, second class, etc. The data is in its raw state, not having the value that big data should have.

(3) Incomplete quality control data and lack of off-campus management. An important characteristic of medical student education is that there is a certain period of probation and internship outside the school, and the students are distributed in hospitals in different regions, which puts forward higher requirements on student management. In practical work, on the one hand, medical schools make good use of the management team inside the school to manage students outside the school. On the other hand, they also set up a student management team in the teaching hospital to strengthen the management. Due to the geographical separation, as a result, the management team in the school is limited to the management of these students, and there is a phenomenon of management vacancy.

3. The opportunity brought by the Internet era to the management of medical students

(1) Data sharing to promote more proactive student education. With the advent of the information age, the process of information construction in colleges and universities is speeding up. In colleges and universities, there is a great demand for information construction in different departments. The main performance is to break the isolated island of data, establish the relationship between the data of different modules, so that all kinds of behavior of students are presented in a data-based way, providing comprehensive data for the cultivation of students.

(2) Data analysis to make education services more accurate. With the help of big data technology and through the comprehensive analysis of students' academic performance data, second class activity data, book reading data, physical fitness test data, mental health data, daily consumption data, scholarship and financial aid data, etc., students' image can be demonstrated on the "portrait" , which can help the establishment of a student personal data database. On the basis of comparison with the standards, the advantages, problems or potential problems in the development of students can be found in time, and the early-warning mechanism can be established to give guidance to students.

(3) Easy data collection drives more sophisticated management of education. The use of information technology makes educational data more complete, which is mainly shown as follows: first, based on WLAN indoor positioning technology, it reduces the loopholes of student management and improves the effectiveness of medical students' management in different places. Second, the use of mobile phone terminals with two-dimensional code technology so that students can be more active in
attendance, assessment, receiving information, participation in teaching evaluation and other aspects. The application of these technical means makes all kinds of data in the educational process more complete, helps administrators to master all kinds of information of students, and also encourages students to participate in the teaching process, and trains students' sense of participation and democracy.

4. Practice and exploration of Internet + medical student management

4.1. Student management of timeliness based on mobile QR code

1. Student attendance management. Before the activity starts, the manager can design the student education activity attendance form (including name, sex, birth month, class, contact information, etc.), make the QR code with the help of the QR code generator. When checking attendance, students can show QR code to check attendance. The system can set check in limits, and students can check in in fixed time and place with a device only checking in once, which can prevent alternative check in, and play a very good monitoring role in the education process.

2. Dissemination of educational information. College campus is the highland of cultural communication. There are a lot of information about second class cultural activities, ideological and political education and cultural knowledge propaganda, which is published in different forms. In order to facilitate readers to better read, they can generate two-dimensional code of the offline text content that is easy for readers to read carefully anywhere at any time. This transformation of text into QR codes facilitates the integration of offline and online content as well as the dissemination of knowledge and information.

3. Evaluation of educational activities. In modern education, the participation of the educated in the evaluation of educational activities is one of the measures to improve the quality of education. Before the end of the educational activity, the manager can design the student educational activity evaluation form (including name, sex, birth date, class, contact way, evaluation grade, etc.) , and make the QR code with the help of the QR code generator. At the end of the activity, they can scan the QR code for evaluation.

4.2. Precision and personalized student management based on big data

1. Accurate student financial aid. The consumption of the students dining room in the statistics and logistics department is compared with the average consumption of the students, so as to accurately evaluate the student' economic state. The daily consumption is mainly to count the consumption time, the single consumption amount, and the monthly consumption amount and so on, to master the students' dining consumption situation. Through the comparison of the individual food and beverage consumption and the average value of students, the evaluation grade is established. In addition, the financial aid level can be accurately determined by the comprehensive judgment based on the students' family economic situation and other individual consumption situation.

2. To accurately predict academic outcomes. With the help of the educational administration system, students are counted to retake credits every semester, and different grades of academic early warning are classified according to certain standards. When students retake credits to reach a certain level, the system automatically carries out early warning to avoid waste of manual verification and
inaccurate abuses. In the early warning prompt, it not only can inform the consequences, but also inform the students to seek help, and take necessary remedial measures and so on.

3. Accurate personal "portrait". With the help of various databases of campus network, students' campus life behaviors are counted, and "portraits" are drawn for students to help them better understand themselves and further develop. Students' learning behavior is described with the help of attendance data of class, books lending and online course participation data while students' extracurricular activities are described with the help of attendance data of second-class activities, and students' consumption behavior is described with the help of dining consumption data. With the help of physical and mental health test data, it can describe the health of students, with the help of the data of the results of various courses; it can describe the learning effectiveness of students. With the help of Internet browsing data, it can describe the management of students' spare time, etc. Combining all the above data to describe the students' individual situation, managers can find out the possible misbehavior or the advantages that need to be further highlighted in order to develop better next.

5. Conclusion
At present, information technology is developing rapidly. Big data and two-dimensional code technology have a broad application prospect in the management of college students. With the promotion of technology, it will be the trend of education management for educators to master all kinds of information, carry out active education management and provide accurate and individualized education service.

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References:
[1] Peng Hong. A new helper for college students——handset two-dimensional code [J]. Talent,2013(11):90-91
[2] Geng Shen. Application of two-dimensional Code check-in technology based on WLAN indoor location in student management. [J]. Computer Literacy and technology, 2017(3):26-27
[3] Emma Warnecke, Stephen Quinn, Kathryn Ogden, Nick Towl, & Mark R Nelson. . A randomised controlled trial of the effects of mindfulness practice on medical student stress levels. Medical Education, 45(4), 381-388.
[4] Jiang, Zhongyun. "Analysis of student activities trajectory and design of attendance management based on internet of things." International Conference on Audio 2017.
[5] Hasan F Khazaal, Riyadh A. Abbas, Basim M. Abdulridha, Marc Karam, & Heshmat Aglan. (2014). E-learning and instructional management system based on local computer networks and internet. Journal of College Teaching & Learning, 11(3), 115-133.