A study on students' on-line behaviors at business colleges

---An empirical study based on Business College of Beijing Union University

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Abstract—**The study is mainly about students' on-line behaviors at Business College of Beijing Union University. By tracking and analyzing students' on-line behaviors at BCBUU for one semester, the characteristics of the students' on-line behaviors at business colleges have been obtained, which can typically reflect the contemporary college students' on-line behaviors in study, living, entertainment, consumption, etc.. These data and behavioral characteristics provide a realistic basis for college teachers to educate students in many aspects.**

Keywords- business;college students;on-line behaviors

I. INTRODUCTION

On-line behavior, also known as network behavior from a psychological point of view, is defined as, in the cyberspace, individuals show interactive or non-interactive behavior in order to satisfy a certain need or obtain some experience with text (multimedia) as an intermediary [1].

On-line behavior as an integral part of human behavior, like other human behavior, is the purposeful activity generated by the stimulation of external factors via the refraction of internal experience, and closely related to human emotion, consciousness, cognition and environment.

John Suler explained the on-line behaviors from the perspective of Need Satisfaction and he emphasized the influence of potential demand on individual on-line behavior. He believed some functions of cyberspace can meet the potential needs of the individual and different on-line behaviors among individuals are the refraction of these potential needs. Therefore, different motivations and needs will inspire individuals to use different network functions and show different network behavior preferences [2].

Individuals' different online behaviors are caused by a variety of motivations and incentives. Here, we take the students from Business College of Beijing Union University as a research object, concern about the group's motives under the interaction of a variety of factors, relatively stable attitudes and behavioral tendencies manifested by using internet as an intermediary.

The group we study is a miniature of contemporary college students whose majors are financial management. Through the study, we can further understand how they use internet in their daily life and study, provide the basis for the further development of the day-to-day education and on-line behavior control, and guide them to form the concepts and behaviors of the active use of network.

Our approach was: SINFOR's internet behavior management device accessed BCBUU's core switch to collect the group data and we analyzed the data collected. This method can ensure a true and objective collection of student on-line data, and avoid such drawbacks as unreliable previous questionnaire, online surveys and other forms of data, low recovery rate.

II. STUDENTS ' ON-LINE BEHAVIOR DATA

Students' on-line behavior data records in one semester were collected at the following three stages, namely at the beginning of the semester, in the middle of the semester, and at the end of the semester. We would analyze the characteristics of their online behaviors from the following several angles.

A. The types of on-line applications

After collecting the statistics of top 20 specific on-line application behaviors at the three stages, we sorted them into five categories to form ranking table. It can be seen from the ranking table that students' overall use of the network was relatively stable, the difference was small and students used the internet less frequently at the beginning of the semester compared to the other two stages. Students' main application at the three stages focused on website visits, file downloads, IM, e-mail and entertainment.

Visiting websites was the main application for students. The websites that students visit were relatively concentrated, and they were mainly about search engines, MLM advertising, online shopping, online payment, news portal, BBS, blog, WebBBS, among which the applications of search engine and MLM advertising ranked first and second. According to the number of behavior shown in the table, it can be seen that file download constituted a very large proportion, mainly including P2P behavior and the use of other download tools such as BT, FlashGet, emule. The third largest category of applications was mainly students' real-time information exchange through a variety of tools, such as the most frequently used tools QQ, mobile fetion, MSN, and Yahoo messenger etc.. Ranked fourth was Web mail. Using the internet to send and receive e-mail has become a common online behavior in students' day-to-day school life. Network Entertainment, was the fifth largest category of major applications. Playing online games, watching on-line movies, and listening to on-line music have become options for students to relax and entertain themselves after school.

B. The areas of on-line applications

the beginning of the semester		the middle of the semester		the end of the semester	
areas	times	areas	times	areas	times
finance	32499	finance	24407	finance	22568
IT	16436	IT	15663	IT	18068
education	15513	education	7851	education	5459
life-related	5245	life-related	4564	life-related	5848

Network applications have gone deep into every aspect of people's study, work, life, and entertainment. There is no exception into students'. According to the features of the websites the students visited, finance, IT, education and life-related applications were the four areas that our students concerned most.

C. The website visit URL Ranking

URL	type	times	total
www.baidu.com	search engines	58559	82075
www.google.com.hk		11842	
www.Sogou.com		5265	
dict.youdao.com		3392	
hao123.com		2272	
www.soku.com		745	
login.taobao.com	Online shopping	3116	3116
mail.qq.com	Web-mail	1172	1930
mail.bcbuu.edu.cn		758	
alipay.com	Online payment	1622	1622
www.renren.com	Dating chat	1366	1366
t.sina.com.cn	Forum blog	757	757
www.sina.com.cn	News portal	630	630

Visiting websites was the first application type for students. Getting access to the website URL ranking made us have a better understanding of what websites students have visited. From the ranking it can be seen that search engine was the most widely used at the stage of mid-semester. Baidu, Google and Sogou were the widely used search tools, YOUDAO dictionary was the widely used online dictionary, hao123 was the most popular navigation website, and SOKU was the widely used search video website. Modern college students have adapted to online shopping, most of them have their own online banking and online payment. Taobao was the most popular on-line shopping website. The most widely used e-mail systems were the qq-mail and college's mailbox. The most popular SNS was RenRen. Sina microblogging held first place in websites of the forum Blog, and Sina was the most popular news portal.

D. Online duration and time

Judging from the entire semester, students' on-line behaviors were not significantly different at the three stages. In the number of on-line applications, the number at the beginning of the semester was less than the numbers in the middle of the semester and at the end of the semester. In the specific application types, there was no difference at each stage.
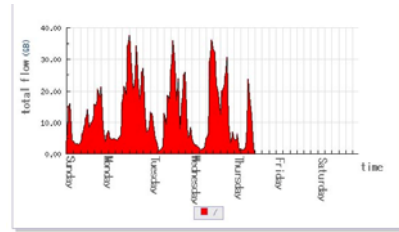

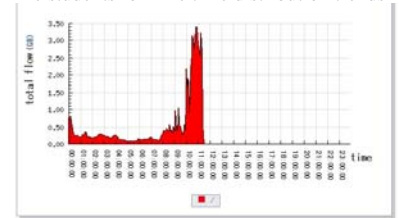Figure1 The students' on-line time distribution trends in a week.

Figure2 The students' on-line time distribution trends in a day.

According to the statistics of students' daily on-line time and weekly on-line time in one semester, the distribution diagrams for students' daily on-line time and weekly on-line time can be obtained. It can be seen from Figure 1 and Figure 2, our students' online time mainly focused on the period from Sunday to Thursday. Monday, Tuesday and Wednesday were more focused. The online time in a day was mainly in the morning.

E. Keywords

On the other hand, keywords which the students retrieved through a search engine can also reflect their concerns. Beijing Union University, Beijing, network, download, Postgraduate examinations, Business, Renren.com, and PPT were long-term focuses for the group. This fully showed that the content related to the college was their focus, Renren was the students' favorite SNS, and PPT was an indispensable skill in daily learning.

III. CHARACTERISTICS OF STUDENTS ' ONLINE BEHAVIORS

A. Network application deep into vaious aspects and fields

Network has been deep into students' study and life. For the object of this study selected, the students focused more on the areas of finance, IT, education, and life.

B. Interactive behaviors and non-interactive behaviors

Students' online behaviors were both interactive and non-interactive. From the number of on-line behaviors, there was no big difference between interactive and non-interactive. Interactive behavior was mainly reflected in the application

of real-time communication tools, such as QQ, mobile fetion, MSN and Yahoo Messenger. The applications of File download and search engines were major non-interactive behaviors.

C. The tendency of Specific applications

The students tended to use search engines to find interesting topics, such as Baidu, Google, and to visit Sina news portal and Sina microblogging more often. They preferred to use qq-mail and college's mailbox, chat in the RenRen, use Youdao Dictionary and Google Translate tools, and visit the shopping site Taobao.

D. The main contents concerned

The theme the students searched was related to their college, Postgraduate examinations, business and operations, and daily assignments and coursework. WEBBBS posting contents highlighted the importance of the completion of the day-to-day school learning tasks.

E. Online duration and time

Students' on-line time at college was closely related to the time of the course. The more courses they had, the longer the time they spent on-line. They had a longer time online in the morning.

F. Other applications

The application of MLM advertising among students was significant.

IV. ANALYSIS OF THESE FEATURES

A. Network teaching requirements

Network teaching has spread to ordinary colleges and universities and built an interoperable platform for the communication between teachers and students. Our college required all the courses except the elective ones use the network to assist teaching and students use the network to complete their learning tasks, which was an important reason to promote students' network application. In addition, the college compressed the face-to-face time for the curriculum in experiment district, strengthened the proportion of network learning, which also prompted the students to use the network to complete the various disciplines of the learning task.

B. The impact of the learning environment

Our college doesn't have campus accommodation for our students. Most students are from Beijing and go back home on weekends, so students surf the internet at home or off-campus in their spare time. The first-year students and the second-year students go to night classes on campus. The rate of Internet access is low, thus a unique distribution of students' on-line time has been created.

C. Development and limitations of network technology

There were a large number of applications in MLM advertising for the students. We could not determine whether the types of students' discipline and the application had a significant relationship, but it could be sure that there was a close relationship between these characteristics and the development of network technology. For example, online advertising push has direct impact on students' click and view of the ads. This, to some extent, explained those students had limited ability to avoid network garbage interference.

V. STRATEGIES ON IMPROVING STUDENTS' ON-LINE BEHAVIOR

In summary, as the representative of the college business students, the students at BCBUU had positive online behaviors and their primary need was to meet the day-to-day learning tasks.. At the same time, the network has gone deep into students' study, life, entertainment, making friends etc. On the premise of strengthening the current good momentum, the college should further focus on how to make students' on-line behaviors more efficient, healthier, enhance the instrumental role of the network and use the virtual space created on the network to influence students' thinking and behavior. The following strategies can be used to guide such students to improve their on-line behavior.

A. Use technical means

By using the core switch, and the on-line behavior management software, the unhealthy websites will be blocked so that students can browse more active and effective information in the limited time [3].

B. Focus on curriculum

Through the curriculum, we can further strengthen to cultivate students' information literacy to enable them to improve the ability to retrieve and identify valid information.

C. Offer good service

We can regularly collect business related information, process and classify the resources according to a certain theme or topic, provide students with a quick search to save their time online and guide them to surf the net in a healthy way.

D. Strengthen education and guidance

Guide students to handle the relationship among surfing internet, study and life, and create a positive atmosphere for network behavior in which everyone can supervise and help each other [4]. For example, we can guide students who are addicted to online games to recognize that after learning statically indoor for a long time, more dynamic ways such as outdoor sports should be taken to relax or release pressure, which are healthier and more effective than sitting in front of the computer in the room, and immersing in the virtual space.

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