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Research on the Influence Factors of Video Website Users' Learning Behavior

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Abstract. The rapid development of information technology in the 21st century and the high popularity of the Internet have made more and more users watch learning videos on video platforms. This paper compares the current situation and characteristics of learning videos of mainstream websites and describes the analysis of the internal and external factors of knowledge learning behavior that affect users of different websites. It is concluded that each user's learning needs and learning motivation are quite different. The characteristics of this article is that the current research on video website at home and abroad is not very extensive. This paper organizes the characteristics of users' learning behavior, summarizes the existing incomplete patterns of knowledge learning behavior, and then finds out the constraints, and puts forward marketing suggestions.

Keywords: Learner characteristics; video website; learning behavior

1. Introduction

As a form of distance education, learning videos on video websites include a wide range of learners. From a biological point of view, due to the differences in individual genes, the physical and psychological performance of individuals are different. Learners are different in their individual characteristics and learning needs, there are big differences in many aspects such as learning motivation and learning style. From a psychological point of view, the environment of individual growth is different from individual experience, such as emotion, will, personality and the initial academic level of learners is different. However, the current learning video design of websites is not very different, ignoring the individual characteristics of learners, which is not good for users to learn better, and affects the learning effect of the website. So far, mainstream video sites have accumulated a large amount of learning video content and user learning record data, but for learners, further research is needed to understand the differentiation of learners' individual learning behaviors, and provide them for future video sites. High-quality video content and differences serve individual learning and provide lessons and suggestions [1].

Milos Jovanovic believes that video websites can allow students to better adapt to a variety of learning styles, and also help guide students' learning behaviors to meet the

requirements of complex types. Through online video learning, students' learning behavior style and overall performance will be significantly changed and improved (students want to be in line with better people in learning cognitive behavior). Rosa Cabedo believes that although the content of learning video sites such as MOOC is diverse, it is still an obstacle to overcome for users who do not know these courses in advance. Therefore, studying the knowledge learning behavior of users of video sites can better understand the user profile characteristics of these courses. The basic relationship between the internal structure of the video website and learning. Finally, it is concluded that the video website learning service has a great role in promoting the development of students' health education.

In the research on "website users' knowledge learning behavior", when Hualin and Jianping defined the concept of "online video site", they divided the video sites on the Internet into four categories: video sharing, video search, video on demand, Live video. However, in the comprehensive research on the learning behavior of website users, there are few systematic research results. Different scholars have different ideas on the learning behavior of video websites, and this model needs to be further summarized and discussed. Users of different video websites have different learning characteristics. According to the classification of Gu Mingyuan (1998), the general characteristics of learners are the psychological, physical and social factors that affect learners. Including gender, age, occupation, motivation, expectations and experience, etc., it requires targeted analysis according to different situations or different types of people.

2. Internal factors
2.1. Learning needs
With the constant changes of the times, people will learn more and more novel and convenient ways to absorb different knowledge, and the dissemination of knowledge is no longer a single teacher teaching, the learning videos on major video websites will be more vivid, interesting and easy to understand. The number of downloads of video software is rising rapidly, and knowledge can also be obtained by watching learning videos on video websites [2]. It can be described as "a shot, more money". The reason may be that the previous knowledge learning is much boring and lengthy. It is a fixed learning place, and now the small video output knowledge is short and concise, which makes learners more acceptable, and more life-like storytelling, plus the ability to comment, so that learners have a strong sense of participation, and a high degree of fit with modern social forms. It can be found from the learning-related videos that this short-term learning based on the video is not a traditional one-way learning. It mainly creates a learning atmosphere of social learning by sending bullet screens and interacting with comments [3]. Different types of original content are uploaded to the platform for users to watch, which constantly stimulates users' learning motivation. Not only that, with the use of learning video software, whether you are waiting for the elevator or the bus or subway, you can learn at any time, which fits the fragmented learning habits of modern learning users. There are many advantages and benefits of website video learning, so that the video of educational content is gradually occupying more shares in the current market, making more users list it as a trusted information acquisition channel.

2.2. Learning motivation

Users have different motivations for watching learning videos. Although acquiring knowledge on B-station video sites seems to be out of place, the data provided by Bilibili confirms that many people are willing to do such incompatible things [4]. Bilibili data shows that in 2019, there were 1.38 million live learning broadcasts at station B, and 46.09 million viewers watched it, four times the number of college entrance examinations that year. The main content of station B is based on entertainment videos, which is a remarkable fact. Most people go to station B, and the ultimate goal is not to learn, because there are obviously other very effective and convenient ways to learn. Most people who watched the learning content at station B watched the 30-minute entertainment video and then swiped to the learning video to alternate between playing and learning [4]. How to explain this phenomenon? Official statistics show that there are 17.43 million hours of live education live broadcasts and 460.9 billion views, summing up an average person studying 0.38 hours, which is more than 20 minutes. This behavior is described as "fragmented learning" or "entertainment learning". There is no serious study, but a little fun. It doesn't need strong perseverance and motivation; it mainly depends on mood. Not only can you learn something, but you can also reduce the psychological guilt of staying at home and playing mobile phones. This relaxed way of education may attract many young people. Not only Station B, but also other entertainment content platforms such as Tik Tok and Kuaishou have general advantages. In addition to "learning how to master examination knowledge and professional skills", "posting the best moments of life" is an important reason why most short video users choose short video products.

3. External factors

3.1. Analysis of environmental factors

As for the user's time, it is easier for more users to watch video by placing learning video products during peak hours. The peak hours of short video users are mainly concentrated at rest and bedtime. And the 18:00-22:00 is the time when short video products are used the most. In addition, the 12:00-14:00 lunch break also occupies a place in the viewing of short video content, which is the peak period for users to watch learning videos. Therefore, from a marketing point of view, the learning video content of short video companies represents the peak usage period during the concentrated period of user needs, which will be more in line with the needs of users. And it will fully expand the user's choice of learning period, and effectively improve the video viewing effect. As for how to choose product factors, first of all, short videos with rich learning content and strong interest are still a huge advantage in the competition in the peer market.

3.2. Information dissemination analysis

Every new type of thing, such as a video site in the Internet age, must be spread before it can be understood and used by the public. This section starts from the analysis of information dissemination and analyzes that website users generally promote themselves through website learning videos, rather than traditional book learning, which has become a learning trend. Before analyzing the external factors of a video website, it is necessary to understand how the website disseminates video content to users.

Laswell's 5w communication model are: Who, Says What, In Which Channel, To Whom, With What Effect [5]. As shown below (Figure 1):
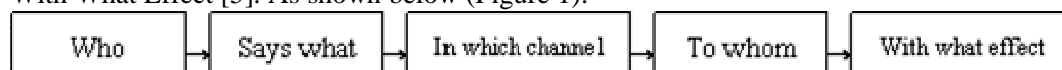
| Who | → | Says what | → | In which channel | → | To whom | → | With what effect |

Figure 1: Laswell's 5W communication theory

Although many scholars have continued to supplement and modify this theory, the core theory has been retained to this day.

First, Who: It is the initiator of the dissemination of online video content. In this chapter, communicators refer to users of video websites who upload videos independently. Operators of video websites need to carefully select high-quality video content, evaluate the reasonableness of prices, protect the rights and interests of video website users to maximize, enhance the user's viscosity on the website, and further become loyal users.

Second, Says What: It also known as the audience, which is the recipient of the information disseminated [6]. The recipients of website video dissemination are very different from the audiences of traditional websites. Contemporary recipients are rarely passive. They have the right to actively choose to accept and re-distribute, and they can also give positive or negative feedback to the communication activities. Feedback and interaction on the video website platform are becoming more and more popular, the recipient and the communicator are relative, and the positions are interchangeable. In this chapter, whether the learning videos distributed by the operators of the video websites are worth learning and buying depends entirely on the quality of the video content and the interests and hobbies of the recipients.

Third, In Which Channel: It is also called information, which is the core of communication activities and an intermediary for mutual exchange of information [6]. Through this content, the two constantly exchange information. This chapter discusses the content provided by video websites to learning users.

Fourth, To Whom: It is the medium or channel on which the information dissemination depends. The communication channels discussed in this chapter refer to the channels required by the video website to disseminate the video to users.

Fifth, With What Effect: the communication effect refers to the objective result of the communication behavior [6]. This chapter refers to the situation where the learning content of the video website is spread to the learning users, and the users understand and accept the video content.

4. The characteristics of the learning users

IiMedia Consulting's 2020 Chinese video website learning user statistics mainly come from online video education platforms such as iQiyi, Bilibili, Tencent Classroom, Netease Cloud Classroom, and Zhihu University [7]. IResearch's short video user data mainly comes from short video platforms such as Tik Tok, Kuaishou, Watermelon, and Weishi [8].

4.1. Gender characteristics

Effective learning on video sites not only depends on the network environment to provide sufficient conditions for learning, but also an important factor is that the process of

learning on video sites is also adapted to the individual characteristics of learners [9]. In the process of watching video content, the users participate in the bullet screen questions and interact with other users to improve learning effects. In 2020, there are about 400 million online learning users. According to the gender distribution of iMedia's data, it can be seen that male gender of online video users accounts for 63%, while female users account for 37%. There are slightly more male users than female users, which may be compared with my country's male and female users.

4.2. Online learning user age characteristics

Judging from the data for 2020, the largest proportion of online learning users is the people aged 31-40, reaching 39%. The next group is users aged 26-30, accounting for 24% of all online learning users. Middle-aged users in this age group are the main age group of online learning users. The latter all middle-aged and elderly users aged 41-50 and above 51, users 19-25 and adolescent users under 18 accounted for 22.4%, 14% and 1.1% of all online learning users, respectively. It can be seen from this that the country's online learning services need to lay a solid user base for young people under the age of 18, and the country needs to vigorously promote online learning and education among young people under the age of 18.

4.3. The distribution characteristics of the user's educational background on the site

In the statistical analysis of online video users in 2020, undergraduates accounted for the largest proportion, with 56.6%, while colleges accounted for 22.6%, accounting for a total of 79.2%. So, it can be seen that college students are the main force of China's online learning user group. And graduate students and above, high school, junior high school and below accounted for 7.6%, 7.5%, and 5.7% of all Chinese online learning users, respectively. The difference is not very large. What surprised me is that there are not many online learning users with graduate students or above. It may be because Most graduate students still use library and paper books to study and expand their knowledge. It can be seen from the figure that the proportion of academic qualifications of Chinese online learning users increasingly tends to be a university degree. Online video learning platforms can vigorously introduce the theoretical and practical knowledge of relevant undergraduate majors to attract university undergraduate users and achieve considerable browsing traffic.

4.4. The video website learns the professional characteristics of users

In the statistical research on the occupational characteristics' distribution of video website learning users in 2020, it can be known that the top 5 video learning users (except students) are white-collar workers, professional technicians (non-medical management), teachers, freelancers, Staff of government agencies or institutions. Corporate white-collar workers are the main group except student users who are learning users on video sites. The proportion in 2020 is 46%, followed by professional and technical personnel (non-medical management), whose proportion is 13%; and then teachers, who make up 10%; free Professionals and government agency or institution staff accounted for 7% and 7.2% respectively, the difference is not very large; the remaining proportion is user groups in other occupations.

4.5. The frequency of learning time of video website users
The frequency with which users of video website groups watch videos through the Internet reflects the viscosity of users' learning information on videos, and also reflects that video websites have become an important part of people's daily life and work at this stage. According to iMedia's statistics on the frequency of user usage of online video site learning in 2020, the proportion of users who learn through video sites multiple times a week is 55%; the proportion of users who watch video learning once a week is 23%; and watch video learning almost every day 11% of the total population; while the number of multiple times a month and multiple times a year or longer is relatively small, only 9% and 1.6% respectively. It shows that the learning frequency of most video users is only maintained at multiple learning times a week, and there are no persistent learning multiple times a day or multiple learning times within a month.

4.6. Geographical distribution of video website users
According to the statistics and analysis of the age distribution of video website users based on iMedia data in 2020, users living in second-tier cities accounted for the largest share, with 38.9%; followed by website video learning users in first-tier cities, with 29.1%; although the proportion of users in first-tier cities is about 9% less than the second-tier cities, but the first-tier cities are only Beijing, Shanghai, Guangzhou, and Shenzhen, while the number of second-tier cities far exceeds four, which is far more than 9% relative to the number of first-tier cities, so it can be seen that Website video users in first-tier cities are the main force of Chinese video learning users. And third-tier cities is about 15.5%, followed by fourth-tier cities and other cities accounted for 16.5%.

4.7. Distribution of learning time of users on video websites
It can be seen from the figure that the largest proportion of the learning time distribution of video website users is 30-60 minutes, accounting for 60%; followed by 60-90 minutes, accounting for 28%.And the 90-120 minutes accounted for only only 6%, compared with the 60-90 minutes decline rate is a bit large, which indicates that only some people insist that the learning time of video websites is between one and a half hours to two hours; the proportion of less than half an hour is 5%; the remaining learning time is the proportion 0.8%.

4.8. Distribution of learning content of users of video websites
The basis for users to choose content is their needs and preferences for information. The audience watching different content will generate other learning needs. In the distribution statistics of learning content in 2020, workplace skills and professional skills have the same proportions, each at 50%, followed by professional knowledge and life interests, at 46% and 41% respectively. It shows that the role of video services in the dissemination of professional theoretical knowledge and skills in the workplace is increasing, and the influence is also very large. Although the proportion of popular science knowledge and examinations, entrance examinations and postgraduate entrance examinations is not very large, the dissemination and functions of video services in these content types cannot be ignored.

4.9. Short video user characteristics
Among short video users, male characteristics are more obvious, and short video products have penetrated middle-aged and young people. According to data from iResearch,

women accounted for 46% of China's short video apps in 2019, lower than 54% of men. The TGI index of male users is 101.7, which is greater than the TGI index of female users of 98.6. Short video users have more obvious male characteristics. In the age distribution, the proportion of 25-35 years old is as high as 51.3%, and short videos are slowly penetrating young people under 24 years old, and young users who are 25-35 years old. From the perspective of educational background, low-level groups of high school and below have obvious characteristics, accounting for 80%, and the TGI index is 104.2. Undergraduates and junior colleges account for only 20% of the total population.

5. Conclusion

This paper analyzes the learning needs and motivations of users on mainstream video sites, and elaborates on the user's behavior characteristics, mainly from two aspects: internal factors and external factors. Individuals have different characteristics. When analyzing the behavior of website users, the psychological characteristics of users and the individual learning behavior of users who watch learning videos should be considered. For example, the difference in age, gender, occupation, and frequency of learning time of website learning users. The analysis of external environmental factors analyzes the user's usage scenarios and usage habits, as well as the important factors that video websites increase user stickiness. The analysis of information dissemination is mainly 5W dissemination, which specifically analyzes the media of dissemination, namely the video website and the recipients, and the website learning users.

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