A Study on the Influencing Factors of MOOC Learning Behavior: Social Network, Motivation to Use and Demographic Variables as Explanatory Variables

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Abstract: Based on the paradigm of network individualism, this paper constructs a theoretical analysis framework of MOOC adoption and use behavior, and reveals the underlying mechanism of MOOC use. It reveals the possible influence of social network and demographic factors on adoption behavior. This paper gives a new explanation for the adoption and use of MOOC. This study considers that the adoption and use of MOOC have the following characteristics: the adoption behavior is driven by motivation, personality and other factors.

1. Introduction

Large-scale open online course (MOOC) has been widely popularized at home and abroad, and integrated into the daily teaching activities of University teachers. MOOC is called Massive Open Online Course. In recent years, MOOC has been widely mentioned all over the world. At present, Cousrera, EDX and udacich, the three main MOOC platforms in the world, have been widely recognized. Of course, China is no exception, the Chinese MOOC platform "School Online" and "Good University Online" have also been implemented successively; Peking University, Fudan University, Nanjing University and other universities have joined the international mature MOOC platform to actively open MOOC courses.

Research on the Current Situation of MOOC Learning

At present, there are many studies on MOOC in China. From the research content, there are MOOC business model, MOOC teaching model, MOOC platform construction, and MOOC copyright research.

Research on MOOC platform. At present, the literature on MOOC platform mainly focuses on the comparative study of foreign MOOC platforms and domestic MOOC platforms. These studies often compare six major domestic MOOC platforms, such as School Online and Super Star Much Course, and analyze the current situation and problems of these six platforms in the network environment, network courses, teaching platforms and teaching support, and discuss their own countermeasures from the aspects of teacher support, content design and technical support. (Han Xibin, Ge Wenshuang, Zhou Qian, & Cheng Jiansteel, 2014)

Literature research on MOOC operation. Mainly analyze the current profit mode and development prospects of MOOC, the problem behind it is not clear about the current profit mode of MOOC. Researchers believe that MOOC does not make money by charging tuition fees, but through other diversified channels. For example, the business model of C o u r s Er a: certification, assured evaluation, University o r employer screening, homework correction, enterprise training, employee recruitment, company sponsored courses, etc., are mainly value-added service fees. Thus, it can be seen that MOOC platform may be the future profit direction of MOOC by charging value-added service fees or advertising fees on the basis of click traffic. (Chen Wenzhu, Wang Ting, & Zheng Xudong, 2015)

Improving the adoption and use of MOOC. There are fewer empirical studies from the learner

level. The core variables of the analysis include the stickiness of learning and loyalty to the platform. For example, some studies have constructed a MOOC learner Loyalty Measurement model. It is pointed out that the measurement of MOOC learner loyalty is the basis of the classification management of MOOC learners, but the current research on the measurement of learner loyalty is relatively deficient. Based on the idea of RFM model, this paper puts forward the measurement index of MOOC learner loyalty, and calculates the weight of each index by attribute importance method in rough set theory. Evidence reasoning is used to synthesize the indicators to measure learners'loyalty, and then the method of measuring learners' loyalty is empirically tested through the learners'behavior data of "MOOC" platform in China University. (Yangyuku. 2017)

However, there are few studies on the adoption and use of MOOC.

In order to better promote online open courses, we need to explore the influencing factors of the adoption and use of MOOC from the perspective of the audience. This leads to a topic worthy of discussion: What are the demographic and social factors that influence the adoption and use of MOOC?

2. Theoretical framework

2.1 The influence of social network on the adoption and use of MOOC

Social network is the sum of individual social relations and a relatively stable structural element. The difference of adoption and use behavior of MOOC may be determined by the difference of social network characteristics. Social networks have a structural effect on individuals. Some scholars point out that social networks have two important dimensions: habits and consciousness, in which individuals play a role. According to their own social network characteristics, Likop and Smolda emphasize that individuals can use media or non-media to keep in touch with social relations. For example, if two people have complex or simple social networks, their media habits are different (BOASE 2008).

Similarly, in the use of MOOC, it can be regarded as peer-influenced behavior. In other words, the reason why some people use MOOC less than others may be that few people use this type of educational tool in their social network. Therefore, this topic considers how social networks affect the adoption and use of MOOC.

2.2 Effect of Use Motivation on the Adoption and Use Behavior of MOOC

According to the theory of use and satisfaction, the reason why psychological or personality traits affect media adoption behavior is the generation of individual motivation and its promotion to behavior.

Fundamentally speaking, the use of MOOC is to meet people's requirements from their own social and psychological characteristics. Different motivations are needed to influence the choice, use and use of media (Katz, 1974). Researchers often use new media technology to stimulate personal motivation while using media for analysis (Charney Greenberg, 2002; Kaye Johnson, 2002; Papa. SSI Rubin, 2000; Rubin Rubin, 1989; Wolfradt Doll, 2001). Some researchers have pointed out that people tend to use the Internet as five motivations: interpersonal communication tools, killing time, searching for information, convenience and entertainment. (Rubin, 1988) may have been inspired by people's specific circumstances. Different from the pure use of the Internet, we need to further explore whether the audience has other motivations in the teaching practice of MOOC based on the Internet. Therefore, this paper considers that motivation has an impact on the adoption and use of MOOC.

2.3 Impact of demographic factors on adoption and use of MOOC

Age is an important variable in predicting individual and social behavior. Although MOOC is very popular nowadays, in fact, demographic variables such as gender, education and age may affect people's acceptance and use of technology, which some scholars call the digital divide.

Research on the digital divide shows that people use different media for different purposes. The

network usage environment and the background attributes of the users have an impact on the network usage. Previous studies have pointed out that different people use the Internet differently because of their different backgrounds. People of different groups should not preset consistent behavior when using social media. For example, education level is an important variable in predicting the digital divide, and the rate of MOOC acceptance by low-educated groups may be slower. Therefore, this paper considers that population factors have an impact on the adoption and use of MOOC.

3. Conclusion

In conclusion, this study has the following two contributions: (1) It is helpful to reveal the internal mechanism of MOOC adoption and use behavior. Based on the theory of usage and satisfaction, this paper constructs a model of explanatory variables, such as population, social and psychological variables, to explain the adoption and use of MOOC. (2) Provide theoretical support for the research of online education effect. This topic provides a theoretical basis for the construction of security mechanism, and expands the empirical and explanatory fields of similar research.

Quantitative research methods can be added to further research in this field. For example, principal component analysis is used to extract the factors affecting the adoption and use of MOOC.

References

[1] Chen Wenzhu, Wang Ting, & Zheng Xudong. (2015). Ways to the success of MOOC operation mode innovation: Take Coursera as an example. Modern distance education research (3), 65-71.

[2] Han Xibin, Ge Wenshuang, Zhou Qian, & Cheng Jiansteel. (2014). A comparative study of MOOC platform and typical network teaching platform. Audio-visual education in China (1), 61-68.

[3] Zywica, J. and J. Danowski, The faces of Facebookers: Investigating social enhancement and social compensation hypotheses; predicting Facebook™ and offline popularity from sociability and self-esteem, and mapping the meanings of popularity with semantic networks. Journal of Computer-Mediated Communication, 2008. 14(1): p. 1-34.

[4] Caplan, S.E., Preference for online social interaction a theory of problematic Internet use and psychosocial well-being. Communication Research, 2003. 30(6): p. 625-648.

[5] Leung, L., Stressful life events, motives for Internet use, and social support among digital kids. CyberPsychology & Behavior, 2006. 10(2): p. 204-214.