

# The Impact of MOOC on Traditional Higher Education and Countermeasures

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**Abstract**—The era of big data wrapped MOOC surge, will cause what kind of impact to the traditional higher education? In Colleges and universities how ability. In this paper, we first introduce the MOOC, and then analyze the influence of the traditional higher education, and put forward the coping strategies. This paper proposes three countermeasures from teacher's perspective. The paper points out that university teachers are faced with new challenges in terms of knowledge learning knowledge spreading and knowledge innovation. It also reflects on how to provide university teachers with favorable conditions at the policy so that they can play a better exemplary rule in this new round of education reform.

**Keywords**—MOOC; traditional higher education; teacher; impact; countermeasure

## I. INTRODUCTION

In May 21, 2013, Peking University, Tsinghua University, to participate in the MOOC; In July 8th, Fudan University, Shanghai Jiao Tong University, and the world's largest online course platform "Coursera" contract; Then, Peking University, Tsinghua University, Fudan University and other 12 domestic top universities announced that will build a Chinese MOOC. September, Tsinghua University, Peking University of the first number of global sharing courses in mainland china. In just a few months, the number of well-known universities in China and the MOOC interaction, the importance of MOOC is self-evident.

"MOOC" came, the Chinese educational circles are all for the tremor. So, what is the MOOC?

MOOCs is the abbreviation of "massive open online courses", which began in the fall of 2011, which is known as "the greatest innovation in the educational world since the invention of printing". Coursera and edX, udacity, are called three carriages of "MOOC". Only look at Coursera, just over a year, a total of 81 members of the world's universities or institutions to join this alliance, sharing 386 courses, the world has more than 4000000 registered students. The scope of the course of "Mu" is not only

covered a wide range of science and technology disciplines, such as mathematics, statistics, computer science, natural science and engineering, but also includes the social sciences and humanities. This kind of online course is not only a teacher lectures, but through the network technology, the classroom teaching, learning experience, teacher and student interaction and other links to achieve a complete online, so as to form a "middle school" model. In the MOOC, teaching video is divided into 10 minutes even smaller fragments, in a series of problems, the correct answer to the question can continue to watch, students can at any time to ask questions and receive answers, has strong interaction; and insult course have frequent small test, when there is a midterm and final exam, so that students can at any time to test their learning effect. These free online courses for all of the world, as long as you have a computer and Internet connection.

## II. MOOC WILL IMPACT THE TRADITIONAL HIGHER EDUCATION

In recent years, there is a prominent phenomenon is the number of college entrance examination students abandon the number of years increased. It is to reach a staggering one million people in 2013. Among the more than 200000 people abroad and was recommended for admission to the University, while the remaining more than 700000 people give up studying direct employment. The children in rural areas are accounted for the vast majority. According to the analysis, this is mainly caused by the employment situation of college graduates in recent years, some of the high school tuition fees but the employment effect is not good. Before the University of rural children is to change the fate of the carp jump Longmen, but now ordinary rural families for a college student will cause the two poverty. In the face of social reality, traditional higher education gradually lost the aura, the appeal of the students is becoming small; and the MOOC for this part of the students have a more practical and appropriate choice.

In addition, the traditional higher education to teacher education, is basically a teaching mode, students can only passively accept. This is like a mess, students can choose

their love of the teacher, and the teacher did. What students can eat nothing, no other choice. As for ability of the students to digest and absorb the ability, whether the malnutrition, or not. Now after 90<sup>th</sup> has become university students, they grow up in the open era, very personality, traditional education difficult to meet the basic learning needs, not to mention to "cultivate innovative talents" objects, such as the. And in the MOOC platform, most of the courses of the speaker per capita for global technology leader and student of the video can choose playback or fast forward, that is to say, according to based on their own level and pace of learning to listen. This is also the scene teaching impossible. A lot of "addicted" to the students talked about this: "you are attracted by the course, is simply not possible for desertion, a second can not be." And if students in the learning process has a question, you can directly put forward on the platform, then you can get answers. This is difficult to the traditional classroom teaching mode. MOOCs in knowledge transfer than the traditional physical classroom more in line with the laws and requirements of the study of science, and thus the study will be more effective. "MOOC" will be interactive and interesting to attract more and more students at any time.

With the strong development of the MOOC, the students find a way to free university classroom. Are they willing to pay tuition fees to the university? Are they willing to sit in front of a crowd of hundreds of people in the classroom in a passive "duck" when the students are addicted to love "MOOC"? Under "MOOC" swept, the famous schools, teachers, classes of the world to compete, the well-known university also discuss how to survival and development. How to blaze new trail, occupies a place in the worldwide competition to most ordinary institutions of higher institutions?

Zhang Jie is Shanghai Jiao Tong University President. He concluded that it is the United States launched a massive open online courses, the operation of the model has been a fundamental start to touch the traditional higher education foundation. It will cause the University shuffle, eventually form a new university pattern." MOOC" indicates that education is about to usher in an important change, and may even be a revolutionary change.

### III. COUNTERMEASURES.

"MOOC" broke the wall of the University, which will undoubtedly lead to the study of the revolution, the higher education personnel training mode and teaching methods to bring profound changes. Are we the "MOOC" resolutely refused or let go of the mind to accept it? The answer is to accept but not copy. We do not recommend insults a university must join the MOOC, but we have to be careful about how to use the online platform combined with the specialty and advantages, go out of a belong to their own development path.

#### A. *Application of big data analysis characteristics of students*

With the rapid development of science and technology, the society has entered the era of big data. Development and utilization of large data, not the Internet industry's patent. As is known to all, Alibaba launched Taobao Data cube through the analysis of large data. It is changing

overall development of ideas in China's clothing industry; WalMart as the world retail giants was established large data centers in 2007. The business personnel analysis of customer's purchase, buying behavior, understanding customers through the data, then managers will make a decision.

Big data can also serve for higher education. If the selected data about the behavior of students in the way of data analysis, it can accurately grasp student's interests and hobbies, allow students to eat "nutrient food", truly teach students in accordance with their aptitude to better teaching effect. If under the support of technology of big data analysis students overall cognitive level and accept ability and comprehensive ability, and on the basis of students will be divided into several groups, according to the levels and characteristics of insults a group of the implementation of specialized teaching, which makes the sub level teaching become possible.

#### B. *Blending MOOC in the teaching process, improve teaching quality*

"MOOC" has instantaneity that is difficult to the traditional classroom, but after all in our country's colleges and universities still take the traditional classroom now, so might as well as the "MOOC" in the teaching process, so that it becomes a part of classroom teaching and promote improvement of teaching quality.

Traditional university classroom is the teacher's teaching knowledge of the unicorn, the teacher is the dominant and the main body. The arrival of MOOC let us start thinking about the new teaching mode. You can use the MOOC platform, let the students out of the class through lectures and his preview and master the basic knowledge, the classroom as the inspiration thinking, explore ideas of places; in class put forward to the problems in the design of the basic knowledge, let the students to express their views together to discuss. The flip classroom model can fundamentally achieve "students as the main body, the teacher is the leading", let the teacher from a teaching truly become learning inspiration, incentive people. And the students from passive cramming method of teaching freed, to actively take the initiative to learn knowledge, learning will become more efficient, the quality of teaching soared at any time.

#### C. *Give full play to the advantages of traditional, distinctive features*

Although the "MOOC" in the capital strength of the Internet, but the Shanghai Jiao Tong University, Huang Zhen, vice president, said that it is not possible to replace the traditional higher education, after all, the experience of the school life, the influence of the campus culture is difficult to replace the online courses. Many universities have its long history, ancient predecessors left the glorious footprints, rich cultural heritage, it have distinct characteristic of running a school, other institutions more difficult to match the professional advantages and advantages of discipline. We may wish to take the "MOOC" impact as an opportunity to cooperate with the reform of school teaching management, and further develop the advantages of each university, out of one of the most unique development of the road.

Colleges and universities should appropriate transformation development by the tide of social

development. They should use data simulated reality and explore students' needs and enhance teaching quality; They should strengthen school education and social demand docking, strengthening the degree of specialization, social need of talents cultivation, ran cannot meet to close the door to the school; At the same time, they should abandon exam directly related to the employment of students can build a platform for some lower threshold, ordinary full-time students in the classroom in the form of Mu class available to students, and the corresponding aspects of network education and skills training, for students to achieve diversity talent.

#### IV. UNIVERSITY TEACHERS SHOULD PAY ATTENTION TO PROBLEMS

##### A. *Further enhance the students centered teaching concept*

MOOC teaching mode reflects the students as the center of the teaching service concept, this is a worthy of attention. Although many colleges and universities in our country can see "all for students, for all students, for students all" slogan, but the real performance in teaching is still a teacher as the center. Teachers in such aspects as teaching content, teaching methods, and assessment scores accounted for the dominant position, with little regard for the needs and feelings of the students, put some teachers in the teaching of less energy directly to the book knowledge into electronic documents, become a new way of scripted, teaching as a minor, with the work of, focused in the research of the project. The origin of these phenomena is not only from the traditional ideas of heavy scientific research and teaching in Colleges and universities, but also because of the change of the values and interests of some teachers. It is for the sake of students' interests, or for the sake of individual interests, the test of the professional ethics of each teacher, but also affect the professional level of teachers.

##### B. *Further establish a scientific evaluation system for teachers*

A good course should be generally welcomed by the students. A good teacher should be widely praised by teachers and students. The popularity of Mu class benefit from the evaluation of students. How to motivate teachers to better invest in teaching work, evaluation is an important orientation. With the continuous development of education reform, the evaluation of university teachers has gradually shifted from qualitative evaluation to quantitative evaluation. Although the current evaluation system plays a very good role in the work of the University, the long-term development of colleges and universities is also kept in some weak links, mainly in two aspects: first, the evaluation criteria. At present many easy to quantify the standard can be seen in various forms of data, such as awards, articles, funding, class, and so on. And some difficult to quantify the standards gradually diluted, such as moral standards, service awareness, collaboration ideas, innovation ability, etc.. Quantitative criteria and qualitative criteria are contradictory, but also unified, if the neglect of the qualitative evaluation, many quantitative criteria will lose its authenticity and reliability; two is the evaluation method. At present, the evaluation of

university teachers is lack of the extensive participation of society, peer and students. Especially ineffective student evaluation of teaching effect and student evaluation can directly the teaching effectiveness of teachers of information feedback, which can not be replaced, is to promote teachers to improve the teaching quality is an important part.

##### C. *Further improve the assessment system for teachers*

Assessment is many units trying to solve the "do a good job" or "do bad" is not the same as important measure, "good" and "bad" can be identified by the evaluation standard, but also identifies the need an understanding of the process. "Jade tried to burn three days full, desiring to be seven years period" that complexity and long-term of talent identification, assessment of teachers can not simple copy of the management mode of the enterprises or institutions, to fully consider the knowledge type employee success regularity and particularity. We used the "ten years grinding sword" to describe the many college teachers have made in teaching or research work. The construction of Mu class is not only the application of computer and network technology, but also the accumulation of teaching experience and the long-term study of teaching methods. If at the end of each year to use quantitative index assessment of teachers qualified or not, those who "Willing to sit coldly on the bench for ten years, don't let knowledge a space-time" insight might only barren ambition the. In the face of the successful experience of the rapid development of the MOOC and anti well at present many colleges and universities in the computer aided teaching is simple and formal problem and the many quick action is and the current assessment and reward system also has some association?

#### V. CONCLUSION

Education is not a fast food culture, the need for a certain accumulation and time inspection. In particular, the emphasis on experiment and practice, although some experiments can be through the online simulation, but it is still the traditional sense of the university teaching is more simple and fast, the cost is low. While on the MOOC trend, we should also see some of the drawbacks in the development of the active adaptation. Network education as a new education mode, by people's strong pursuit, but will not cause "school useless", especially in some remote and backward areas of education work is also dependent on conventional school education. MOOC mode can not replace the role of the school, but it can be seen from the development of the MOOC in the direction of future education development. It is gratifying to deal with the current education modernization and education normalization prospects. Many universities in China have joined the MOOC platform to share and build educational resources. These measures are in the effort to meet the needs of the development of the times, so that more people have more opportunities to enjoy higher education.

The arrival of "MOOC" is a challenge and opportunity to higher education. Higher education workers with the support of all sectors of the community can pool the wisdom and efforts of everyone, seize the opportunity,

meet the challenge, and promote development steady excellence of the higher education.

#### REFERENCES

- [1] Masters,K..A brief guide to understanding MOOCs[J]. The Interent Journal of Medical Education, 2011, vol.1,Number 2.
- [2] Hu Tiesheng. The regional practice and Revelation of the development of high quality and high quality micro lesson resources in Zhan Chunqing [J] China education informationization, 2012, (11):pp. 65-69.
- [3] Li Yuping Micro course one one to simple learning [[J] Chinese information technology education, 2012, (11): 15.
- [4] Zhang al.Micro course review [[J] Chinese information technology education, 2012:pp.19-21.
- [5] Yao Zhengdong. Micro curriculum design strategies[J] China education of information technology, 2012, (11)PP.25-26.
- [6] Fan Fulan, Zhang Yi, etc. Based on the application effect of micro video teaching resource interactive teaching mode analysis [J]modern educational technology, 2012, (6)PP.24-28.
- [7] Paul saettler. The evolution of amerrican educational technology [M]. charlotte; information age publishing,1990.
- [8] Wu Fati. Network curriculum design and development [M]. Beijing: Higher Education Press, 2011.
- [9] Zhang Yichun. Research and Thinking on the construction of micro course [J]. China education network, 2013, (3)pp. 28-30.
- [10] Becca Nate (2013). Online teaching business school [EB/OL]. <http://www.ftchinese.com/story/001047178>