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MOOC – Only Media Hype?
**A Comparative Study of MOOC Coverage in the United States of
America and in the People's Republic of China**

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Table of Contents

Table of Contents.....	I
Table of Figures.....	IV
Table of Tables.....	V
Table of Abbreviations.....	VII
Abstract – Deutsch.....	1
Abstract – English.....	4
1 Introduction.....	7
1.1 Question Consciousness: The Drop Between the Ideal News Reports and Reality.....	8
1.1.1 The Ideal News Reports: Reasonable Professionalism.....	8
1.1.2 Reality: Reduced Professionalism and Credibility of News Media.....	11
1.1.3 What is a Media Hype?.....	18
2 MOOC – A New Fashion of Learning.....	21
2.1 Definition of MOOC.....	22
2.2 Underlying Theories of History and Origins.....	24
2.3 The Evolution of MOOC.....	26
2.3.1 Precursors.....	26
2.3.2 Originated from the Open Educational Resources Movement.....	27
2.3.3 cMOOC vs. xMOOC.....	29
2.3.3.1 cMOOC.....	29
2.3.3.2 xMOOC.....	31
2.3.4 Characteristics of MOOC.....	33
3 The Question of Previous Research: How are MOOCs portrayed in Western News Media?.....	37
3.1 Newspaper Coverage of MOOCs in Australia, Great Britain and the USA (2012 – 2013).....	37
3.2 Newspaper Coverage of MOOCs in Canada (2012 – 2014).....	42
3.3 Newspaper Coverage of MOOCs in New Zealand (2012 – 2016).....	46
4 The Research Questions and Methodology of this Paper.....	53
4.1 The Research Questions.....	53
4.2 Methods.....	57
4.2.1 Qualitative Content Analysis according to Philip Mayring.....	57
4.2.2 Data Acquisition and Analysis Strategy.....	59
5 MOOC: A Real New Development Trend or Media Hype?.....	61
5.1 MOOC Coverage in the USA.....	61
5.1.1 The State of Education in the USA before MOOCs.....	61

5.1.2	The Starting Period of MOOCs	72
5.1.3	New York Times' MOOC Coverage (2011-2020).....	75
5.1.3.1	The MOOC News Wave.....	75
5.1.3.2	The Key Event?	75
5.1.3.3	The Media Making News?	80
5.1.3.3.1	Change	81
5.1.3.3.2	Providers and Elite Universities	85
5.1.3.3.3	Openness.....	91
5.1.3.3.4	Commodification	94
5.1.3.3.5	Pedagogy	98
5.1.3.3.6	MOOC as Experimental	100
5.1.3.4	Interaction between Media and Social Actors	101
5.1.3.5	The End of the MOOC Hype.....	102
5.2	MOOC Coverage in China	105
5.2.1	Education in China before MOOC	105
5.2.1.1	The Chinese Dream of Education.....	105
5.2.1.2	Higher Education in China	112
5.2.1.3	The National Key University Projects.....	118
5.2.1.4	Cost of Studying at a University in China	127
5.2.1.5	Distance Education in China	134
5.2.2	The Starting Period of MOOCs in China	138
5.2.3	Guangming Daily's MOOC Coverage (2011-2020).....	142
5.2.3.1	The MOOC News Wave.....	142
5.2.3.2	The Key Event?	145
5.2.3.3	The Media Making News?	146
5.2.3.3.1	Change	148
5.2.3.3.2	Providers and Elite Universities	157
5.2.3.3.3	Openness.....	160
5.2.3.3.4	Commodification	164
5.2.3.3.5	Pedagogy	165
5.2.3.3.6	MOOC as Experimental	171
5.2.3.3.7	The Actuality of MOOCs	175
6	The Different Paths of MOOCs in the US and China.....	179
6.1	MOOCs in the US.....	179
6.2	MOOCs in China	184
6.3	Conclusion	194
	Appendix: Text Corpus	197

The List of MOOC Articles by the New York Times (2011 – 2020)	197
The List of MOOC Articles by the Guangming Daily (2011 – 2020)	207
Literature	VIII
Scientific Paper	VIII
Documents.....	XVI

Table of Figures

Figure 1 President of Boeing China Marc Allen’s Weibo about MH 370	12
Figure 2 The Aspiring Novelist Who Became Obama’s Foreign-Policy Guru	13
Figure 3 Google Search Result with “uk 39 bodies Chinese”	13
Figure 4 Google Search Result with “uk 39 bodies Vietnamese”	14
Figure 5 How to Make Fake News	14
Figure 6 The Photor on Pro-Protestors Media	15
Figure 7 The Photo on People's Daily's Weibo	15
Figure 8 Baidu Media Index of Bike-sharing	17
Figure 9 Timeline of MOOC and Open Education Development	27
Figure 10 Search Interest in MOOC & Massive Open Online Course (January 2011 – June 2020).....	53
Figure 11 Interest in MOOC / 慕课 (January 2011 – June 2020)	54
Figure 12 Content Analysis “American Major and Minorities” from Berelson 1953 ...	58
Figure 13 The New York Times Wave.....	75
Figure 14 Number of the Institutions of Higher Education in China (1949 – 2010)..	117
Figure 15 Chinese MOOC Coverage – Half-year View	144
Figure 16 Chinese Coverage of MOOC – Monthly View	145
Figure 17 MOOC Reports Guangming Daily (May 2013– September 2019).....	147

Table of Tables

Table 1 Comparison of Traditional Online Education and MOOCs	32
Table 2 Number of Public & Private Schools, Community Colleges and Colleges & Universities in the USA	64
Table 3 One-Academic-Year Tuition Fee for Different Student Groups in 2005 at the University California, Berkley	65
Table 4 One-Academic-Year Tuition Fee in 2005 at Harvard & Stanford University..	66
Table 5 One-Academic-Year Tuition Fee in three top American Universities	66
Table 6 Average Student Loan Debt in the USA 2006-2010	67
Table 7 2003 Academic Ranking of World Universities	68
Table 8 Number of US Universities in 2003 & 2010 Academic Ranking of World Universities	71
Table 9 Frequency of the Theme Change	81
Table 10 Frequency of the Theme Providers and Elite Universities	85
Table 11 Frequency of the Theme Openness	91
Table 12 Frequency of the Theme Commodification	95
Table 13 Frequency of the Theme Pedagogy	98
Table 14 Frequency of the Theme MOOC as Experimental	100
Table 15 Education Scale of Higher Education, Secondary Education & Primary Education (1949-2010)	112
Table 16 Distribution of Project 211/985 & Local Population Size	120
Table 17 Chinese Universities in the Academic Ranking of World University (2003, 2010 & 2020)	125
Table 18 Higher Education Tuition (1993 -2004)	130
Table 19 Cost of Bachelor Study in China Per Semester (2010)	130
Table 20 Eight batches of National High-Quality Video Courses	137
Table 21 Top 10 Keywords in News Headlines	147
Table 22 Frequency of the Theme Change	149
Table 23 Frequency of the Theme Providers and Elite Universities	157
Table 24 Frequency of the Theme Openness	160
Table 25 Frequency of the Theme Commodification	164
Table 26 Frequency of the Theme Pedagogy	165

Table 27 Frequency of the Theme MOOC as Experimental	171
Table 28 Frequency of the Theme the Actuality of MOOCs.....	175
Table 29 Number of MOOCs of the Top 10 US Universities	179
Table 30 Tuition Fees of the Six MOOC-based Business Degree Programmes (Full Programme)	183
Table 31 Number of MOOCs of the Top 10 Chinese Universities.....	184

Table of Abbreviations

abbr.	Abbreviation
ARWU	Academic Ranking of World Universities
CEO	Chief executive officer
CORE	China Open Resources for Education
e.g.	for example (from Latin “ <i>exempli gratia</i> ”)
EWUCSA	East-West University Course Sharing Alliance
GD	Guangming Daily
JMOOC	Japan Massive Open Online Education Promotion Council
MIT	Massachusetts Institute of Technology
MOE	Ministry of Education
MOOC	Massive Open Online Course
NYT	The New York Times
OCW	OpenCourseWare
OER	Open educational resources
PhD	Doctor of philosophy
SPOC	Small Private Online Course
U. S.	United States
UK	United Kingdom
UNESCO	United Nations Educational, Scientific and Cultural Organization
UOOC	University Open Online Course
USA	United States of America

Abstract – Deutsch

Unter einer Medienhype versteht man die außergewöhnlich hohe Publizität einer Person oder Sache, die durch Massenmedien oder mit Hilfe von Massenmedien erzeugt wird und die in keinem Verhältnis zu der Person oder Sache steht, über die berichtet wird. Der Medienwissenschaftler Peter Vastermann hat 2005 in einer grundlegenden und vielbeachteten Arbeit die Kriterien herausgearbeitet, anhand derer sich die Frage beantworten lässt, ob die Berichterstattung über eine bestimmte Sache oder Person als Medienhype einzustufen ist. Die bestimmte Sache, für die sich in der vorliegenden Arbeit diese Frage stellt, ist das Bildungsangebot der Massive Open Online Courses oder kurz: MOOCs.

Die Medienberichterstattung über MOOCs beginnt am 16. August 2011 mit einem Artikel in der New York Times. Unter der Headline „Free Course in Artificial Intelligence Is Offered Online, and 58,000 Sign Up“ berichtet die Tageszeitung erstmals über einen Online-Kurs, der von dem deutschen Stanford-Professor Sebastian Thrun und seinem US-amerikanischen Kollegen Peter Norvig über Youtube angeboten wird. Als die Zahl von 130.000 Teilnehmern überschritten wird, sieht sich die New York Times das zweite Mal und in der Folgezeit immer und immer wieder dazu veranlasst, über „Thrun’s experiment“ zu berichten und darüber zu diskutieren, wie MOOCs die gesamte Hochschullandschaft verändern können und voraussichtlich auch verändern werden. Dieser Diskussion schließen sich 2012 mehr und mehr Tageszeitungen im In- und Ausland an.

Der Umstand, dass ein Bildungsangebot eine derart hohe Aufmerksamkeit in den Tageszeitungen findet, erweckt in mehreren Ländern das Interesse von Medienwissenschaftlerinnen und Medienwissenschaftlern. Sie stellen sich die Frage, wie häufig Tageszeitungen über MOOCs berichten und welche inhaltlichen Schwerpunkte sie in ihrer Berichterstattung setzen. Mit den Mitteln der Frequenzanalyse beantworten diese Frage zunächst Scott Bulfin, Luciana Pangrazio und Neil Selwyn für die MOOC-Berichterstattung in Australien, Großbritannien und den USA in der Zeit von 2012 bis 2014, anschließend Delia Dumitrica für Kanada in der Zeit von 2012 bis 2014 und schließlich Yvonne Rowan und Maggie Hartnett für Neuseeland in der Zeit von 2012 bis 2016.

Die Ergebnisse dieser drei Forschungsarbeiten bilden Grundlage und Ausgangspunkt der vorliegenden Arbeit. Richtungsweisend sind sie auch in methodischer Hinsicht. So folgt die vorliegende Arbeit dem von Bulfin, Pangrazio und Sewyn gewählten Ansatz, den Ländervergleich auf eine führende Tageszeitung des jeweiligen Landes zu konzentrieren.

In einer Reihe von Punkten geht die vorliegende Arbeit allerdings auch über die bisherigen medienwissenschaftlichen Forschungsarbeiten hinaus.

- Die bisherige Forschung beantwortet die Frage, wie häufig und mit welchen Inhalten die untersuchten Tageszeitungen über MOOCs berichten. In der vorliegenden Arbeit wird zusätzlich danach gefragt, ob die Berichterstattung die Kriterien erfüllt, die Vastermann zur Feststellung eines Medienhypes definiert hat.
- Die bisherige Forschung bezieht sich ausschließlich auf die MOOC-Berichterstattung in westlichen Tageszeitungen. Mit der Einbeziehung der „Guanming Daily“, die in der Volksrepublik China in chinesischer Sprache erscheint, wird die Forschung erstmals auf eine fernöstliche Tageszeitung erstreckt. Die Wahl der Guanming Daily ist dem Umstand geschuldet, dass diese Tageszeitung für einen Ländervergleich zwischen den USA und China dem US-amerikanischen Vergleichsobjekt, der New York Times, in puncto Verbreitung und Reputation am nächsten kommt.
- Die bisherige Forschung analysiert die MOOC-Berichterstattung in den einzelnen Ländern für einen Zeitraum von zwei, drei oder fünf Jahren. Der Abschluss der vorliegenden Arbeit im Jahr 2021 erlaubt erstmals eine Frequenzanalyse der Presseberichterstattung für einen Zeitraum von mehr als zehn Jahren (2011 – 2021). Entsprechend umfangreich ist auch der zu analysierende Textkorpus. Bei der New York Times sind es in dem fraglichen Zeitraum 144 Artikel und bei der Guanming Daily 322 Artikel.
- Schließlich bilden die Wiedergabe und Erläuterung der Ergebnisse der ländervergleichenden Forschung über die MOOC-Berichterstattung in Tageszeitungen den Gegenstand der bisherigen Veröffentlichungen, ohne dass dabei näher auf bestehende Gemeinsamkeiten und Unterschiede in

den Bildungssystemen der für die Forschung ausgewählten Länder eingegangen wird. Bei einem Vergleich zwischen Ländern mit großen Unterschieden in den Bildungssystemen, wie dies auch und gerade für die Vereinigten Staaten von Amerika und die Volksrepublik China zutrifft, erscheint eine ergänzende Darstellung der Bildungssysteme sinnvoll, wenn nicht sogar notwendig, um die in der Arbeit behandelten Zeitungsinhalte bestmöglich einordnen zu können. Aus diesem Grund geht den Analysen der MOOC-Berichterstattung der New York Times und der Guanming Daily jeweils eine Darstellung des US-amerikanischen und des chinesischen Bildungssystems in der Zeit vor dem „Start“ der ersten MOOCs voraus.

Will man die Ergebnisse der vorliegenden Arbeit in aller Kürze zusammenfassen, so lässt sich feststellen, dass diejenigen Themen, die durch die bisherige Forschung in den westlichen Tageszeitungen als wichtigste Themen der MOOC-Berichterstattung identifiziert werden, in den Artikeln der New York Times ebenfalls eine große Rolle spielen. Parallelen zeigen sich auch insoweit, als die Berichterstattung hier wie dort mit großen Erwartungen an MOOCs als dem Bildungsangebot der Zukunft einsetzt und diese Erwartungen im Laufe der Zeit mehr und mehr zurückgenommen werden. In der MOOC-Berichterstattung der New York Times zeigt sich dieser Kontrast zwischen der früheren Beurteilung von MOOCs als „game changer“ und der späteren Beurteilung als „lousy product“ besonders deutlich. Ganz anders stellt sich die MOOC-Berichterstattung der Guanming Daily dar. Hier spielen die Themen der westlichen Berichterstattung nur eine untergeordnete Rolle. Dominierend ist hier vielmehr – von Beginn an – die Berichterstattung über eine von staatlicher Hand geplante und mit staatlichen Mitteln unterstützte systematische Integration von MOOCs in das gesamte Bildungssystem der Volksrepublik China sowie die kontinuierliche Berichterstattung über die schrittweise, den Plänen entsprechende Verwirklichung dieses Ziels an den Schulen und Hochschulen des Landes. Dementsprechend ist die MOOC-Berichterstattung in China auch weit entfernt davon, als Medienhype eingestuft zu werden. Im Unterschied dazu erfüllt wiederum die MOOC-Berichterstattung der New York Times alle von Vastermann definierten Kriterien. Die Zeitung selbst bestätigt diesen Befund, wenn sie ihre Leserschaft in der Headline eines ihrer letzten Artikel über dieses Thema fragt: „Remember the MOOCs?“

Abstract – English

Media hype is interpreted as an extraordinary high publicity for someone or something that is generated by or with the help of mass media and that is out of proportion to the person or thing that is being reported on. In 2005, in a widely acclaimed and fundamental work, media scientist Peter Vastermann set out five criteria to answer the question of whether a story about a subject or person can be classified as media hype. The thing that raises this question in this work is the educational alternative – Massive Open Online Courses, or MOOCs for short.

The media coverage of MOOCs began with an article in the New York Times on 16 August 2011. With the headline “Free Course on Artificial Intelligence Offered Online, 58,000 Sign Up”, the daily first reported on the online course offered on YouTube by Sebastian Thrun – the German professor at Stanford University – and his American colleague Peter Norvig. When course participants exceeded 130,000, the New York Times began reporting on “Thrun’s experiment” time and time again and discussing how MOOCs could and would probably change the entire higher education landscape. Since 2012, an increasing number of dailies from the USA and other countries joined the discussion.

The fact that an online educational alternative receives such a great deal of attention in the daily press arouses the interest of media scientists from several countries. They posed a series of questions, such as how often daily newspapers covered MOOCs and what focus they set in their coverage. Using the means of content analysis, Scott Bulfin, Luciana Pangrazio and Neil Selwyn first tried to answer this question by analysing news media stories produced in Australia, Great Britain and the USA from January 2012 and December 2013, then Delia Dumitrica with their research of MOOC news in Canada from 2012 to 2014, and Yvonne Rowan and Maggie Hartnett who studied MOOC reports in New Zealand from 2012 to 2016.

The achievements of their researches form the basis and starting point for this work, as well as the direction in terms of methodology. This work therefore applies the same approach that Bulfin, Pangrazio and Sewyn used, focusing the nation comparisons on a leading daily newspaper in the respective country.

However, there are elements of this work that goes beyond previous media studies.

- Previous research answered questions about the frequency and content of MOOC coverage in the dailies reviewed. In this work, the author also asked whether the coverage meets the criteria that Vastermann defined for determining media hype.
- Unlike the previous studies that only examined the coverage of MOOCs in Western media, this work is extended to the Far East press for the first time with the inclusion of Guangming Daily, which appears in Chinese in the People's Republic of China. Guangming Daily was chosen because, in terms of country-by-country comparison between China and the United States, this daily is closest to the New York Times in terms of circulation and reputation in the United States.
- Previous studies have analysed MOOC coverage in individual countries over a two-, three-, or five-year period. Completed in 2021, this work allows for the first time a content analysis of news report over ten years (2011 - 2020). The text corpus to be examined is correspondingly broad, including 144 New York Times articles and a total of 322 articles in the Guangming Daily.
- Finally, the rendition and interpretation of the inter-country comparison of MOOC coverage fills in a theme that not covered in the earlier research publications, namely that they did not detail the existing similarities and differences in the educational systems of the countries selected for their researches. When comparing countries with vastly distinguish educational systems, particularly in the case of the United States of America and the People's Republic of China, additional descriptions of the educational system appear to be helpful, if not necessary, in analyzing the content of MOOC reports in a most appropriate manner. Therefore, this paper supplements background information on the educational systems of the two researched countries – the USA and China – leading up to the first MOOCs were introduced, before embarking on an analysis of the MOOC coverage in the New York Times and the Guangming Daily.

To summarise the findings of this work in a nutshell, it can be stated that those themes which are identified by the pioneering researchers as the most important ones of MOOC coverage also played a major role in the New York Times articles. It can be seen from these reports that there were initially high great expectations for MOOCs as an educational alternative in the future, and that these expectations are gradually diminishing over time. This change was especially evident in the New York Times reports, that called MOOCs a “game changer” in the early days and a “terrible product” later. Guangming Daily’s MOOC coverage presented a completely different picture. In the MOOCs news drafted by Guanming Daily’s writers, the subjects which often appeared in the Western reports plays only a subordinate role. Instead, the dominant themes from the outset have been the reports on the systematic integration of MOOCs as a novel means into the entire education system of the People’ Republic of China, the national MOOC plan and financial support from the state, as well as the ongoing coverage on the progressive achievements of this goal by schools and universities in accordance with the national plan. Consequentially, the MOOC coverage in China is far from being media hype while the New York Times’ MOOC reports meet all of the criteria defined by Vastermann. The New York Times itself confirms this finding when it asked its readers in the headline of its recent article on this topic: “Remember MOOCs?”

1 Introduction

In the 20th century, mankind has made brilliant achievements in understanding, utilising and controlling nature. The unprecedented development in the field of science and technology enabled human society to enter the information era from an industrial period, and promoted changes on social, political, economic and ideological grounds. Education has played an inestimable role in the development of science and technology and the progress in human society in the 20th century. Several major events occurred during this period:

1. developed countries have popularised secondary education and realised the population of higher education;
2. education in developing countries are transforming from extreme backwardness to universal education;
3. the changing concept of education together with the developing educational contents and methods have been preparing a comprehensive revolution in the field of education.

However, the education system and its model are always relatively rigid. Thus, its evolution is slow and find it hard to keep up with the advancing science and technology and the changing society. Education faces serious challenges when entering in the 21st century: the booming science and technology have put forward new requirements in terms of quality and quantity of talents, the huge pressure generated by the world's population surge, the fierce international competition and various social problems. In response to the all the challenges, an education system for all which meets basic learning needs is required, i.e. "every person – child, youth and adult – shall be able to benefit from educational opportunities designed to meet their basic learning needs"¹.

There is a demand to seek new education models as traditional school education and formal education can no longer meet the basic learning needs. Modern science and technology provide a material basis for establishing a new education model since the development of information technology makes distance education possible. Television recording and interactive multimedia technology give more people access to knowledge. Educational technology came into being as the times required, showing new possibilities

¹ UNESCO (1990, March 5-9). *World Declaration on Education for All and Framework for Action to Meet Basic Learning Needs*. Programme and meeting document for the Secretariat of the International Consultative Forum on Education for All. New York: UNESCO.

for education in the 21st century, pointing out a new way to transform the existing education model to meet the basic learning needs of humanity and to improve the education quality.

Massive Open Online Course (abbr. MOOC) is one of the attempts at an educational paradigm shift. MOOC suddenly came into people's vision through Sebastian Thrun, a Stanford University professor born in Solingen, Germany. Sebastian Thrun reached 160,000 students via the Internet in 2011 with a single seminar on artificial intelligence. Since then, MOOC has drawn continuous wide attention from the academic circles as well as the public and deeply affected the higher education ecology of many countries.

As an emerging and evolving phenomenon, researches on MOOCs are growing rapidly and are generally focussed on four aspects:

- *the potential and Challenges of MOOCs for Universities,*
- *MOOC Platforms*
- *Learners and Content in MOOCs*
- *Quality of MOOCs and Instructional Design Issues*"²

This work is going to take stock of the relationship between the media coverage over MOOC and the MOOC development as a whole in order to figure out whether MOOC is more media hype than a significant breakthrough in the field of education.

1.1 Question Consciousness: The Drop Between the Ideal News Reports and Reality

1.1.1 The Ideal News Reports: Reasonable Professionalism

Mass media is the main communication institution that helps the public to understand the world and acquire social facts, in modern society. Gaye Tuchman, professor of sociology at the University of Connecticut, begins his incredible book *Making News: A Study in the Construction of Reality*, published in 1978, by telling us that "News is a window on the world ... The urbanised and urbanising nation's

² Zawacki-Richter, O., Bozkurt, A., Alturki, U., & Aldraiweesh, A. (2018). What Research Says About MOOCs – An Explorative Content Analysis. *International Review of Research in Open and Distributed Learning*, 19 (1), 242-257.

replacement for the town crier ... the news aims to tell us what we want to know, need to know and should know”³.

Due to the professionalism of journalism in the past century, news media has been taken as a conduit for receiving important news and information by the public today ⁴. The professionalization of journalism was set up mainly upon two focuses: objectivity and social responsibility theory⁵.

Objectivity in journalism implies that reports must be given in a pattern approximating social science research. Fact, truth and reality play as God-terms for the journalistic practice⁶ to stimulate media workers to interpret events and news in an impartial and unbiased manner grounding in the classic 5W1H questions – who, what, when, where, why and how⁷. Thus, news is assumed to be more accurate and authentic when newsmen are more self-disciplined with the objectivity principle during production.

Social responsibility, another dominant professionalism concept, aims to form a communication institution enabling the public to access dispassionate and objective facts. The foundation of social responsibility in journalism, generally acknowledged, can be traced back to the first half of the 20th century. The pursuit of absolute freedom of the press led to chaos and confusion – sensational news overflowed, buzzworthy scoops, disclosures and developments prevailed – in the entire Western media community. Benefits and money worship replaced the supremacy of journalistic rationalism as the media was being controlled by capital while monopoly was eliminating the marketplace of ideas. In response to such circumstances, the American academic circle and press industry conducted a series of introspection, which acted as a great power for the reshape of a positive press. In March 1947, *A Free and Responsible Press, A General Report on Mass Communication: Newspaper, Radio, Motion Pictures, Magazines, and Books* was published by the Commission on Freedom of the Press, a temporary non-official research

³ Tuchman, G. (1978). *Making News: A Study in the Construction of Reality*. New York: The Free Press, p. 1.

⁴ Birkhead, D. (1986). News media ethics and the management of professionals. *Journal of Mass Media Ethics: Exploring Questions of Media Morality*, 1 (2), 37-46.

⁵ Schudson, M., & Anderson, C. (2009). Objectivity, professionalism and truth seeking in journalism. In K. Wahl-Jorgensen & T. Hanitzsch (Ed.), *The Handbook of Journalism Studies* (pp.88-101). New York: Routledge. Johnstone, W., Slawski, J., Bowman, W. (1972). The professional values of American Newsmen. *Public Opinion Quarterly*, 36 (4), 522-540.

⁶ Zelizer, B. (2004). When facts, truth, and reality are God-terms: on journalism’s uneasy place in cultural studies. *Communication & Critical/Cultural Studies*, 1(1), 100-119.

⁷ Clark, Y. (2014, May 12). *The Pyramid of Journalism Competence: What journalists need to know*. Poynter.

organisation on the present status and future prospects of the American media, set up by President Robert M. Hutchins of the University of Chicago with the support of Henry R. Luce of the *Time* magazine empire⁸. This report introduced some basic principles such as “freedom of the parties at interest”, “the moral right of freedom of expression is not unconditional”, “the work of the press as clothed with a public interest” to the freedom of the press, contributing to the basic framework of a new theory of the press⁹. In 1956, a new theory named “the social responsibility of the press” was introduced in Fred S. Siebert, Theodore Peterson and Wilbur Schramm’s far-reaching *Four Theories of the Press*. Regarded as an amendment to the libertarian theory, the social responsibility theory grafted a new idea to the traditional. The critical spirit is that press freedom must be regulated by social responsibility, and reporting is obliged to be accurate and meaningful. The concept acknowledges journalism as a self-regulated profession thoroughly enjoying freedom on the one hand, and maintains journalists’ ability and obligation to cover news and events completely, honestly and comprehensively on the other. In other words, journalism practice its social responsibility through objective, fair and adequate reports.¹⁰ The theory was not only recognised and played as the core discourse in the American press thereafter, but also gradually became a regulation pursued by the media in various countries after World War II¹¹.

By and large, objectivity and social responsibility formed the press professionalism, which enables the public to endow the journalism with a legal status of conveying social facts, events and problems. The ethical pursuit and model establishment of journalistic professionalism may further improve media workers’ unique social position¹². That is to say, journalistic professionalism is the key for the journalists to gain public trust and respect from all sectors of the society. Appropriate responses only happen when the audience can obtain accurate and timely information and news about the recent

⁸ Blanchard, M. (1977). The Hutchins Commission, The Press and the Responsibility Concept. *Journalism Monographs*, 49 (May 1977), p. 11.

⁹ Commission on Freedom of the Press (1947). *A Free and Responsible Press, A General Report on Mass Communication: Newspaper, Radio, Motion Pictures, Magazines, and Books*. Chicago: University of Chicago Press.

¹⁰ Siebert, F., Peterson, T., & Schramm, W. (1984). The Social Responsibility theory of the press. In *Four Theories of the Press: The Authoritarian, Libertarian, Social Responsibility, and Soviet Communist Concepts of What the Press Should Be and Do*. (pp. 73-104). Urbana; Chicago: University of Illinois Press.

¹¹ McQuail, D. (2000). *Mass Communication Theory*. CA: Sage.

¹² Hanitzsch, T. (2007). Deconstructing Journalism Culture: Toward a Universal Theory. *Communication Theory*, 17, 367-385.

Skovsgaard, M. (2014). Watchdogs on a leash? The impact of organisational constraints on journalists’ perceived professional autonomy and their relationship with superiors. *Journalism*, 15(3), 344-362.

affairs and events via news media, and mis-reactions and even social disorders can, therefore, be avoided.

1.1.2 Reality: Reduced Professionalism and Credibility of News Media

Authenticity, objectivity and accuracy, as common sense, are the life of news. However, that is not the case. The Reuters Institute Digital News Report 2019 shows trust in the news is generally low worldwide, with an average of 42% and less than half (49%) of people trusting the news media they use.¹³ Pew Research Center released a public survey of 38 countries in early 2018. The survey shows that journalistic objectivity and neutrality remain the consensus of the public around the world, but, in different countries, people's impressions of their news media differ. When reporting political issues, the news media are considered to favour one political party over others in 20 of the 38 countries surveyed while the majority of the public in the remaining 18 countries think their media are doing well. At the same time, the global public agrees that news media perform more objective and neutral on issues other than political issues, and give higher marks for their job in covering most important social issues, providing accurate news and covering government leaders and officials. Nevertheless, it is just a relatively high evaluation and does not mean that the news media are performing satisfactorily.¹⁴

The unprofessional performances of news media even make the press itself frequent our TVs- and newsfeeds.

When Malaysia Airlines Flight 370 (MH 370) lost contact on 8 March 2014, the whole world was worried about it. However, it was not only worries, anxieties and sorrows that accompanied it, but also overwhelming rumours – some said there was a miracle survivor, some reported that the plane crashed, and some said it was a terrorist attack... Various stories appeared on the Internet and even in some mainstream media. Within one hour, information obtained was falsified, rumours spread and then refuted, a strange loop of rumour appeared. Although the increasingly developed network and interpersonal communication accelerated the spread of rumours, the news media can hardly absolve themselves from the blame. Xinhua News Agency once announced on its official Weibo (Chinese Twitter) that Vietnam had discovered the signal of the missing

¹³ Newman, N., Fletcher, R., Kalogeropoulos, A. & Nielsen, R. K. (2019). Reuters Institute Digital News Report 2019. *Reuters institute for the Study of Journalism*, p. 9.

¹⁴ Mitchell, A., Simmons, K., Matsa, K. E., Silver, L. (2018). *Publics Globally Want Unbiased News Coverage, but Are Divided on Whether Their News Media Deliver*. Pew Research Center.

MH370, and the final confirmed complete information should be the place where the last signal from the missing aircraft was found. Reuters quoted Vietnam’s Tuoi Tre news that Admiral Ngo Van Phat said “he had asked boats from an island off south Vietnam to rush to the crash site”, and suggested that the report was not confirmed yet. At the same time, Reuters cited Malaysia Airlines’ earlier announcement in the day that no distress signal was received and the aeroplane may have landed in Nanming in South China as previously speculated.¹⁵ Marc Allen, President of Boeing China, wrote on his Weibo: “The plane is found but our sorrows grow. Our technical assistance team is en route to assist the investigating authorities off the Vietnamese coast (Figure 1).” Allen deleted the message in two hours and posted a new one that said “Early reports from local Southeast Asia news of found plane are in error. The search continues.” During this period, several local media have reposted this false news backed up by the Boeing executive.



Figure 1 President of Boeing China Marc Allen’s Weibo about MH 370

On 5th May 2016, *The New York Times* Magazine released a controversial profile “The Aspiring Novelist Who Became Obama’s Foreign-Policy Guru” about the White House aide Ben Rhodes, describing how he turned to an effective author of the Obama government from a young Master graduate in creative writing without any foreign policy experience, and disclosing how he manipulated the media on the international nuclear agreement with Iran¹⁶. Soon, it triggered criticism in the US press, and public anger at the government’s manipulation of the media.

¹⁵ Reuter (2014, March 8). *CORRECTED-UPDATE 4-Malaysia Airlines plane crashes in South China Sea with 239 people aboard – report*.

¹⁶ Samuels, D. (2016). *The Aspiring Novelist Who Became Obama’s Foreign-Policy Guru*. The New York Times Magazine.



Figure 2 The Aspiring Novelist Who Became Obama's Foreign-Policy Guru – The New York Times

Source: <https://www.nytimes.com/2016/05/08/magazine/the-aspiring-novelist-who-became-obamas-foreign-policy-guru.html>

On 23th October, 2019, UK police found 39 bodies in a refrigerated trailer in the southeast British county Essex. The victims were first believed and reported as Chinese. However, their identities were confirmed as Vietnamese after DNA tests of the victims conducted by both British and Vietnamese authorities two weeks later. If we just type the keywords “UK 39 bodies Chinese” into Google search engine, about 251,000,000 results will be shown after 0.51 seconds (Figure 3). Meanwhile, around 29,300,000 results will be presented in 0.49 seconds with keywords “UK 39 bodies Vietnamese” (Figure 4),

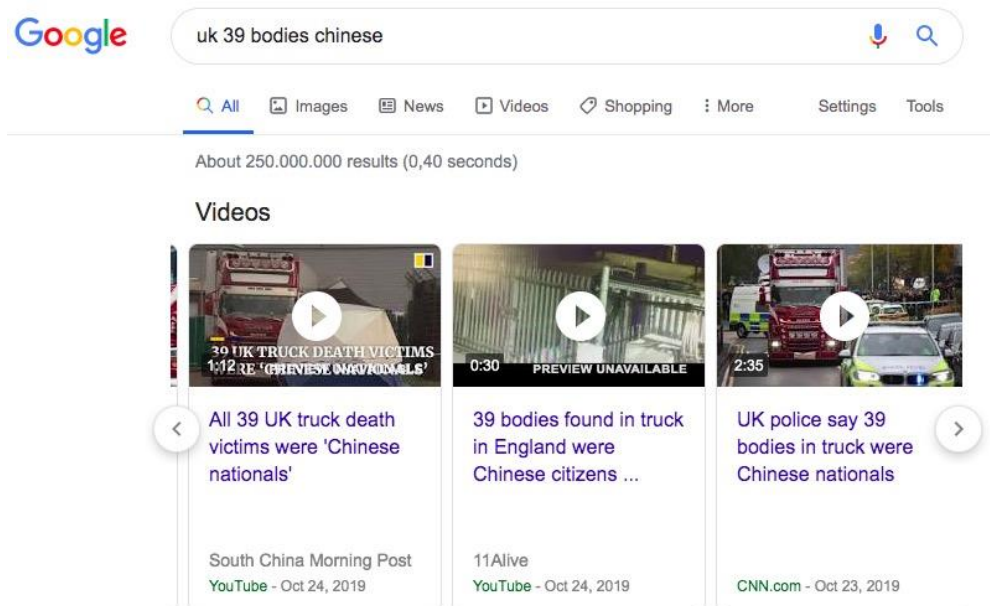


Figure 3 Google Search Result with “uk 39 bodies Chinese” Retrieved 12 Nov, 2019, Google

almost 8.6 times less than the former keyword. It seems that the media are more likely to cover news generated by guess instead of news with firm evidence, or the journalists may simply believe 39 bodies from China can catch more attention.



Figure 4 Google Search Result with “uk 39 bodies Vietnamese”
Retrieved 12 Nov, 2019, Google

The Hong Kong Anti-Extradition Bill Movement might be one of the most concerning events worldwide in the year 2019. Here, we are not going to discuss or judge right or wrong, let’s focus on the media reports on both pro-protestors and pro-Hong Kong, or say pro-Chinese government.



Figure 5 How to Make Fake News
Source: Retrieved from <https://medium.com/feature-hk>

Figure 5 is a widely spread photo on the Internet with various appearances and totally opposite wordings. For those who stand for the protestors, this is a piece of powerful evidence for police violence since the policeman in the picture is hiding at a street corner and ready to snipe demonstrators (Figure 6). However, for the other side, this is also a strong picture for condemning some Hong Kong media as lacking integrity. As a response to “some Hong Kong fellow workers”, People’s Daily used the same image with a frame ONLY HIS “LENS” IS AIMED AT THE UNRULY RIOTERS to denounce that some news workers are not reporting neutrally (Figure 7). When people search on the Internet, they will find an interesting phenomenon: almost one-sided news coverage which tells how violent the Hong Kong policemen are on the western media while reports on the Chinese news are mainly showing what a horrible thing the protestors are doing, and how seriously they are destroying the city. Obviously, neither of them is unbiased. In the case of the Hong Kong Anti-Extradition Bill Movement, the sense of responsibility and professional standards that the media should adhere to have been discarded in precise political positions. Those who made yellow news or fake news have an inescapable responsibility for the deteriorating violence for misdirecting the public.



Figure 6 The Photor on Pro-Protectors Media

Source: Wong, K. (2020, March 4). 失控的觀塘：如箭在弦的一槍 [Out of control Kwun Tong: A shot like an arrow].



Figure 7 The Photo on People's Daily's Weibo

All these above, however, is perhaps just the tip of the iceberg. On the one hand, people's democratic life and even daily consumption are inseparable from timely and accurate news information; on the other hand, with fake news, overflowing sensational news, buzzworthy scoops, disclosures and developments prevailing, it is getting harder for the public who consume a plethora of information and news sources every day to figure out whether or not the media is fooling them. The political theorist Hannah Arendt said "Freedom of opinion is a farce unless factual information is guaranteed and the facts themselves are not in dispute".¹⁷ Yes, when Socrates linked knowledge with virtue, he already pointed out that to judge right and wrong, we must first determine whether it is true or false:

"Don't you know that a true falsehood (if you'll allow me the phrase) is loathed by everyone, divine or human? ... no one chooses and wants to be denied in the most important part of himself and about the most important things. The presence of falsehood there is his worst fear."¹⁸

Even though there are reasons to believe that the public is rational and that people have the ability to make their own reasonable judgements about social reality, this good wish is not supported by sufficient facts. People may try to sort out the facts by collecting various information, but finding the truth requires time and sufficient discernment, especially in today's more complex social environment. News media, as a window for the public to get to know the world and understand the society, it influences people's cognition of things to a large extent, and even affect the development of things.

Bike-sharing has been very popular in China in recent years. Since the second of 2016, it quickly swept first- and second-tier cities such as Beijing, Shanghai, Guangzhou and Shenzhen, and spread further to the countryside. As it caters to people's demand for short-distance ride, bike-sharing start-ups represented by Mobike and ofo attracted a large amount of venture capital. Xinhua News Agency quoted an investigation of overseas students from 20 countries along the "the Belt and the Road" saying that bike-sharing is one of the "four new inventions" along with high-speed rail, mobile payment and e-

¹⁷ Arendt, H. (1968). *Between Past and Future. Eight Exercises in Political Thought*. New York: The Viking Press, p.238.

¹⁸ Socrates, cited in Plato Republic. (1993). *A new translation by Robin Waterfield*. Oxford: Oxford World Classics, 382a, p.77.

commerce in 2017.¹⁹ Till August 2017, there were nearly 70 bike-sharing operating companies in China, with more than 16 million bicycles deployed, over 130 million registers, and more than 1.5 billion times of service.²⁰ In sharp contrast to the crazy expansion, three years later in 2019, the market was no longer crowded after experiencing industry pains such as broken capital chains, hopeless profitability, and disrupting public resources, and there were no more than ten brands with a stable market share. When the capital boom subsided, the bike-sharing bubble burst. Bike-sharing is still active in people's daily lives, but the number of bicycles on the street has been drastically reduced. In Figure 8, the Baidu Index depicts the media coverage related to bike-sharing from 1st January 2016 to 21st December 2019. The media curve is very much in line with the typical media hype wave.

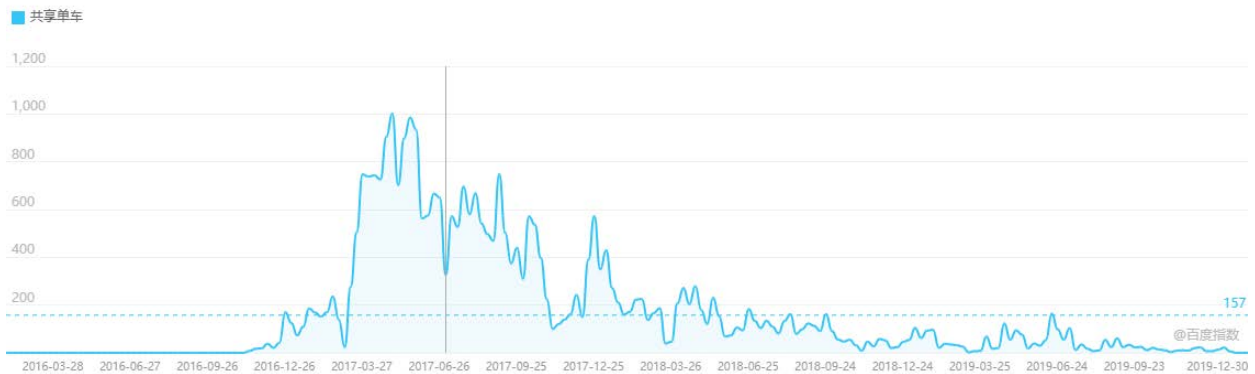


Figure 8 Baidu Media Index of Bike-sharing (01.01.2016-31.12.2019)

Is MOOC another hype? This is the attempt of this paper: to answer whether MOOC is media hype through a content analysis on the related coverage in the past years.

¹⁹ Wang (2017, May 9). 你最想把中国的什么带回家——20 国青年街采 定义中国“新四大发明” [What would you like to take home with you from China the most- Youth from 20 countries define China's "Four New Inventions" in a street survey].

²⁰ Luo (2017, August 4). Bike sharing gets national guideline. China Daily.

1.1.3 What is a Media Hype?

The book “*From Media Hype to Twitter Storm*”²¹ published by Peter Vastermann in 2018 contains a very unusual “Preface” written by Hans Mathias Kepplinger. The preface consists of questions and answers on the subject of “media hype”, whereby the author both asks the questions and provides the answers. For example:

“Why is media hype interesting?”

It is interesting because hype cannot be entirely explained by the mechanisms of media.

Why not?

Because media outlets report significantly more intensively about some events than about other, comparable events.

Why is this relevant for society?

Because media users find it very difficult to distinguish between an increasing number of media reports and an increasing number of reported incidents. One possible consequence of this can be the serious misperception of reality.

Why is this politically relevant?

Because politicians and other agents are more frequently oriented by media reporting than other reality indicators. Possible consequences of this include misperceptions of reality and incorrect decision-making in situations of crisis, conflict, and scandal.

And why is media hype relevant to journalists?

Because journalists are charged with representing reality objectively. This also applies to how often an event is reported – over a given time period, the frequency of reports should correspond to the frequency of incidents being reported. In situations of hype, this is not the case.

²¹ Vasterman, P. (2018). *From Media Hype to Twitter Storm*. Amsterdam: Amsterdam University Press.

How can it be proven that media hype is a phenomenon in itself, in need of a special explanation?

One must show that a large number of reports in the media is not, in fact, caused by a large number of similar incidents. This is possible by comparing reports to genuine facts – facts that can be counted, irrespective of media reports.”²²

However, it is not Kepplinger who raised the question “What is media hype?” and gave the answer. Many years ago, Peter Vastermann himself had answered this question in his basic paper: *Media-Hype: Self-Reinforcing News Waves, Journalistic Standards and the Construction of Social Problems*.²³

According to Vastermann, media hype can be defined as:

“a media-generated, wall-to-wall news wave, triggered by one specific event and enlarged by the self-reinforcing processes within the news production of the media. During a media-hype, the sharp rise in news stories is the result of making news, instead of reporting news events, and covering media-triggered social responses, instead of reporting developments that would have taken place without media interference.”²⁴

Vastermann gives the following as criteria to identify media-hype:

1. A News Wave:

“The sudden materialization of a news wave, which rises steeply and fades away slowly and is not linked to the frequency of any actual events as reported.”²⁵

2. A Key Event:

“The existence of a key event: there is a clear starting point for the news wave, an event that receives more attention than comparable events, for whatever reason.”²⁶

²² Kepplinger, H. M. (2018). Preface. In Vasterman, P. (2018). *From Media Hype to Twitter Storm: News Explosions and Their Impact on Issues, Crises and Public Opinion*. Amsterdam: Amsterdam University Press. p.13.

²³ Vasterman, P. (2005). Media-Hype: Self-Reinforcing News Waves, Journalistic Standards and the Construction of Social Problems. *European Journal of Communication*, 20 (4), p.508-530.

²⁴ Vasterman, P. (2005), p.515.

²⁵ Vasterman, P. (2005), p.516.

²⁶ Vasterman, P. (2005), p.516.

3. *The Media are Making the News:*

“The media are making the news instead of reporting events by: reporting comparable incidents and linking them to the key event; reporting thematically related news such as features, analyses and opinions.”²⁷

4. *Interaction between Media and Social Actors:*

“There is an interaction between the media and social actors resulting in: increased coverage of social action triggered by the news wave; increased coverage of reactions from social actors.”²⁸

In order to find out whether the coverage analysed is media hype, these four criteria developed by Vastermann will be applied in this thesis.

²⁷ Vasterman, P. (2005), p.516.

²⁸ Vasterman, P. (2005), p.516.

2 MOOC – A New Fashion of Learning

In the era of the Internet, the acquisition of knowledge has been radically shifted by the relentless march of technology. Due to the advancement of science and technology and the popularization of the internet, the boundaries between countries, organizations, and even individuals have become blurred, and the world has flattened.²⁹ Classrooms are no longer the only places for education; teaching and learning are no longer book-based or traditional classroom-based activities. Teaching activities have gradually shifted to virtual networks and digital technologies, using various technologies to design and present knowledge content and make good use of virtual networks as a dissemination vehicle. So that teaching activities are no more hindered by time and space, and turn from monolithic learning to dynamic, flexible and autonomous online learning that all people around the world can participate in through the internet.³⁰

The evolution of the Open educational resources (abbr. OER), associated with the idea of open sharing, took off with the launch of MIT OpenCourseWare at the Massachusetts Institute of Technology (abbr. MIT). MIT started publishing a substantial number of its courses freely on the Internet to “enhance human learning worldwide by the availability of a web of knowledge”³¹ as early as 2001. Since that time, with the development of the OER movement, more and more universities and educational institutions began to share their high-quality educational resources. In 2012, a burgeoning massive open online education model called MOOC set off a new upsurge in the area of open educational resources.

The term Massive Open Online Course (abbr. MOOC) was first introduced in 2008 by Dave Cormier at the University of Prince Edward Island and Bryan Alexander of the National Institute for Technology in Liberal Education in response to an open online course – *Connectivism and Connective Knowledge* – led by George Siemens of Athabasca University and Stephen Downes of Canada’s National Research Council.³²

²⁹ Friedman, T.L. (2005). *The world is flat: A brief history of the twenty-first century*. New York, NY: Farrar, Straus and Giroux.

³⁰ Anderson, J. Q. (2013). Individualization of higher education: How technological evolution can revolutionize opportunities for teaching and learning. *International Social Science Journal*, 64(213-214), 305-316.

Lytras, M. D., Mathkour, H. I., Abdalla, H., Ai-Halabi, W., Yanez-Marquez, C., & Siqueira, S. W.M. (2015). An emerging-social and emerging computing enabled philosophical paradigm for collaborative learning systems: Toward high effective next generation learning systems for the knowledge society. *Computers in Human Behavior*, 51, 557-561.

³¹ Vest, C. M. (2004). Why MIT decided to give away all its course materials via the internet. *The Chronicle of Higher Education*, 50(21), B20-B21.

³² Cormier, D. (2008). *The CCK08 MOOC-Connectivism course, 1/4 way*.

The name MOOC has been widely known since the great success of *Introduction to Artificial Intelligence*, an open online course given by professors Sebastian Thrun and Peter Norvig which attracted over 160,000 students in more than 190 countries. From then on, the American elite universities initiated a MOOC movement and aroused widespread attention. A growing number of leading universities within and outside the United States joined in and developed a large number of MOOCs. Students from all over the world can access lectures of well-known professors by taking MOOC freely.

The rise of MOOCs is accompanied by fierce debate. Some scholars see it as a coming revolution of education while others think MOOCs, which originated from the thought of open education and network technology, is only an integral part of online education and is still in its infancy. Although there are different opinions on MOOCs, its continuous development has more or less influenced the learning and teaching process and pattern.

2.1 Definition of MOOC

MOOC is the acronym for Massive Open Online Course, the latest development of distance education designed for the purpose of enhancing the spread of knowledge. It is generally considered that the term “MOOC” is coined by Dave Cormier and Bryan Alexander in Canada to describe a twelve-week online course – Connectivism and Connective Knowledge, CCK08” – which applied Facebook Groups, Wiki Pages, Forums and other online channels to get more students involved at the University of Manitoba during 2008 Fall semester. The CCK 08 course was presented to 25 Manitoba students in addition to over 2200 non-paying students from the general public, and 170 of the learners opened blogs specifically for the course.³³ Since then, “MOOC” has been applied to a variety of online education courses.

Generally speaking, a so-called MOOC nowadays is a large-scale open-access course issued by individuals or institutions with a spirit of sharing and collaboration and offered on the Internet. The acronym speaks to the promises that MOOC offers:

- **Massive:** an indefinite number of learners are enabled to participate in courses about anything given by any academics from anywhere. Unlike traditional

³³ Cormier, D. (2008). *The CCK08 MOOC-Connectivism course, 1/4 way*.

Downes, S. (2008). *CCK08 – The Distributed Course*. The MOOC Guide.

Parr, C. (2013). *MOOC creators criticise courses' lack of creativity*. Times Higher Education.

courses, where there are only dozens or hundreds of students, a MOOC can easily attract tens of thousands or even hundreds of thousands of learners.

- **Open:** all learners of all ages, ethnicities, races, nationalities, incomes, levels of education, etc. are allowed to participate in the courses without being enrolled at a physical institution.
- **Online:** easy access via the Internet, which refers to flexible time and space. Learning can be done online, and is 7×24 hours available.
- **Courses:** a series of lectures on a particular subject.

In a nutshell, a MOOC is an open-access course available for an indefinite number of students easily via the Internet, intended to realise unlimited participation and provide open access to networked high-quality education resources.

The connotation of MOOC can be interpreted from the three dimensions of lecture format, education model and knowledge innovation. From the perspective of lecture format, MOOC is a large-scale online virtual open course that connects lecturers and tens of thousands of learners all over the world through teaching and learning. On the one hand, it provides traditional curriculum materials such as videos, textbooks, problem sets and so on; on the other hand, it creates a learning community through interactive forums for thousands of learners driven by common learning interests and goals, letting them learn, share and communicate on the same curriculum.³⁴ From the perspective of education model, MOOC is a new education model developed on open educational resources and learning services, allowing all people on the earth with learning needs to learn via the Internet by implementing the entire teaching process online.³⁵ It is more than a single innovation in educational technology, the brand-new education model and learning mode of MOOC bring profound changes to education concepts, education systems, pedagogy and even personnel training process, which may prompt reform and innovation in higher education. From the perspective of knowledge innovation, MOOC is a novel type of platform that pilots learners to creatively reorganise learning resources and independently explore knowledge, and supports them to inspire and generate new knowledge via dialogue and communication on various issues.³⁶ MOOC sets up a new

³⁴ Johnson, L., Brown, M., & Adams, S. (2013). *The NMC Horizon Report: 2013 Higher Education Edition*. Austin: New Media Consortium, 11-14.

³⁵ McAuley, A., Stewart, B., Siemens, G., & Cormier, D. (2010). *The MOOC model for digital practice*. Prince Edward Island: University of Prince Edward Island.

³⁶ Daniel, J. (2012). Making Sense of MOOCs: Musings in a Maze of Myth, Paradox and Possibility. *Journal of Interactive Media in Education*, 2012(3), p.Art.18.

platform for large-scale and diverse learners, lecturers and researchers, and the collision of thoughts and the inspiration stemming from their discussion and brainstorming evolve it into an immense treasure house of knowledge and wisdom.

2.2 Underlying Theories of History and Origins

Although the concept of large-scaled free open online courses was first proposed after the year 2000, the educational ideology can be traced back to the 1960s. On 22nd April 1961, Richard Buckminster Fuller, a well-known American architect and system theorist, presented the concept of educational technology in industries, and forecasted the future of its application in his speech.³⁷ In the next year (1962), in a seminal paper *Augmenting Human Intellect: A Conceptual Framework*, a summary report of a project pursued at Stanford Research Institute, the American inventor and Internet pioneer Douglas Carl Engelbart developed Fuller's concept. He proposed to harness the computer technologies to improve the intellectual effectiveness of the individual human being. In other words, combine the population of personal computers with the interconnected computer network to form a large-scale worldwide information sharing effect.³⁸ Engelbart's idea paved the way for the emergence of open educational resources and massive open online courses that aim to share educational resources with the public. Later on, Daniel Barwick, an American educator who was the President of Independence Community College, pointed out that there is no sufficient evidence for a negative link between large class size and reduced learning outcomes in the field of higher education.³⁹ Although he himself did not directly advocate massive open online courses, his idea of introducing large-scale learning into higher education was one of the sources of later ideas of developing massive open online courses to in higher education.

In the 1970s, computer enthusiasts and education reformers published a large number of articles and study reports, advocating the openness of the education process and calling for computer technology as a means to reform the education system. Ivan Illich, a well-known contemporary Croatian-Austrian philosopher and social critic, proposed to integrate advanced technology into the educational system and create

³⁷ Fuller, R.B. (1964). *Education Automation: Freeing the Scholar to Return to His Studies*. Illinois: Southern Illinois University Press.

³⁸ Engelbart, D. C. (1962). *Augmenting Human Intellect: A Conceptual Framework*. Summary Report AFOSR-3223 under Contract AF 49(638)-1024, SRI Project 3578 for Air Force Office of Scientific Research. Menlo Park, Ca.: Stanford Research Institute.

³⁹ Barwick, D. (2007, December 6). *View: Does Class Size Matter?* Inside Higher Ed.

decentralised “learning webs” to create more effective and more participatory learning in his famous *Deschooling Society*:

“A good educational system should have three purposes: it should provide all who want to learn with access to available resources at any time in their lives; empower all who want to share what they know to find those who want to learn it from them; and, finally, furnish all who want to present an issue to the public with the opportunity to make their challenge known”.⁴⁰

Illich’s opinion aroused strong resonance among the society and further promoted the application of technology in the field of education. With the rapid development of information technology and the wide application of network technology, Internet has penetrated into every corner of our daily life, affecting the way people feel, observe and think. As a result, both the Internet and virtual thinking have been important thinking modes for humans to examine and construct the world. When it comes to education, the virtual culture is considered as a new cultural form in the field of higher education, which flows unimpeded on the global learning network and connects learners all over the world;⁴¹ knowledge networks are described as “social networks between knowledge actors, in order to allow the creation and transfer of knowledge on an individual, group, organisation and inter hierarchical level”.⁴² George Siemens, a Canadian educator, applied network thinking to study the process and nature of learning and then originated Connectivism in his article *Connectivism: A Learning Theory for the Digital Age* in 2005. In the same year, Stephen Downes published his *An Introduction to Connective Knowledge* on his personal web and listed diversity, autonomy, interactivity and openness as the four criteria of connective knowledge.⁴³

Connectivism deals with the problems and challenges of learning in the information age: information explosion instead of the lack of information, accelerating knowledge update, universal participation in information production, the increasingly complex, chaotic and non-linear information system and learning activities and the

⁴⁰ Illich, I. (1971). *Deschooling Society*. New York: Harper & Row.

Johnson, L., Brown, M., & Adams, S. (2013). *The NMC Horizon Report: 2013 Higher Education Edition*. Austin: New Media Consortium, p.11-14.

⁴¹ Bergquist, W.H., Pawlak, K. (2007). *Engaging the Six Cultures of the Academy*. San Francisco, CA: Jossey-Bass.

⁴² Seufert, A., von Krogh, G., & Bach, A. (1999). Towards knowledge networking. *Journal of Knowledge Management*, 3(3), p.180 -190.

⁴³ Downes, S. (2005). *An Introduction to Connective Knowledge*.

limitation of human's cognitive abilities. All these lead to a series of problems such as information overload, growing cognitive load and half-baked understanding. Siemens notes that the dynamic networked information flow has taken the place of the traditional static hierarchical information system in the era of Internet, learning therefore is a process of linking various information nodes or sources to form connections and organising them into a continuum network. And learners are the starting points and the controllers of learning activities.⁴⁴

2.3 The Evolution of MOOC

2.3.1 Precursors

Online education is nothing new, except its technology. The concept can be traced back to the well-known first correspondence course in 1844 when Isaac Pitman taught his shorthand course by using the new postal system in Great Britain to send teaching materials to his students and receive students' assignments in return for correction.⁴⁵ Before the Web became popularised, distance learning was realised mainly in the forms of correspondence courses, radio and television broadcasts in the long 19th to 20th century, and Computer-Based Training or Computer Assist Instruction as early e-learning in the late 20th century. The Western Behavioral Science Institute in La Jolla, California conducted one of the earliest online education programmes when it deployed computer as the core communications medium to deliver an online learning programme to hundreds of executives globally since 1982.⁴⁶ In 1989 the University of Phoenix established its Online Campus, and started to offer online degree programmes, long before most other universities.⁴⁷ In 1993, as Marc Andreessen and Eric Bina at the University of Illinois created the first graphical Web Browser that popularised the World Wide Web, online education started to boom.⁴⁸

⁴⁴ Siemens, G. (2005). Connectivism: A Learning Theory for the Digital Age. *Instructional technology & distance learning*, 2(1), p.3-10

⁴⁵ Tait, A. (2003). Guest Editorial - Reflections on Student Support in Open and Distance Learning. *The International Review of Research in Open and Distributed Learning*, 4(1).

⁴⁶ Feenberg, A. (1993). Building a Global Network: The WBSI Experience. In L. Harasim (Ed.), *Global Networks: Computerizing the International Community*, p.185-197.

⁴⁷ Ashley, C. (1992). University of Phoenix graduates first class of online MBAs, *Online Review*, 16 (3), p.161-163.

UOPX News (2016, July 14). *University of Phoenix Celebrates Four Decades of Innovative Higher Education*.

⁴⁸ Miller, G., Benke, M., Chaloux, B., Ragan, L. C., Schroeder, R., Smutz, W., & Swan, K. (2013) *Leading the e-Learning Transformation of Higher Education: Meeting the Challenges of Technology and Distance Education*. Sterling, Virginia: Stylus Publishing.

MOOC that values large-scale participation and open learning can be described as an advanced development of online education, crossing borders and gaining a place in the field of online higher education in various countries.

2.3.2 Originated from the Open Educational Resources Movement

Since the beginning of the 21st century, the advancement of the Internet and digital technology has pushed higher education into the era of digital learning, and the integration of information technology has gradually become a basic appeal for courses and teaching. Educational technology and teaching multimedia have been widely applied to enrich course content, manage course progress, conduct computer-assisted tests, construct interesting interactive learning simulation situations, record personal learning history, assist individuals in independent learning and so on. However, in the past ten years, there has been a new development in digital learning in higher education, namely MOOC. The development trend is shown in Figure 9. Affected by open education and open educational resources, MOOC not only continues the spirit of traditional digital

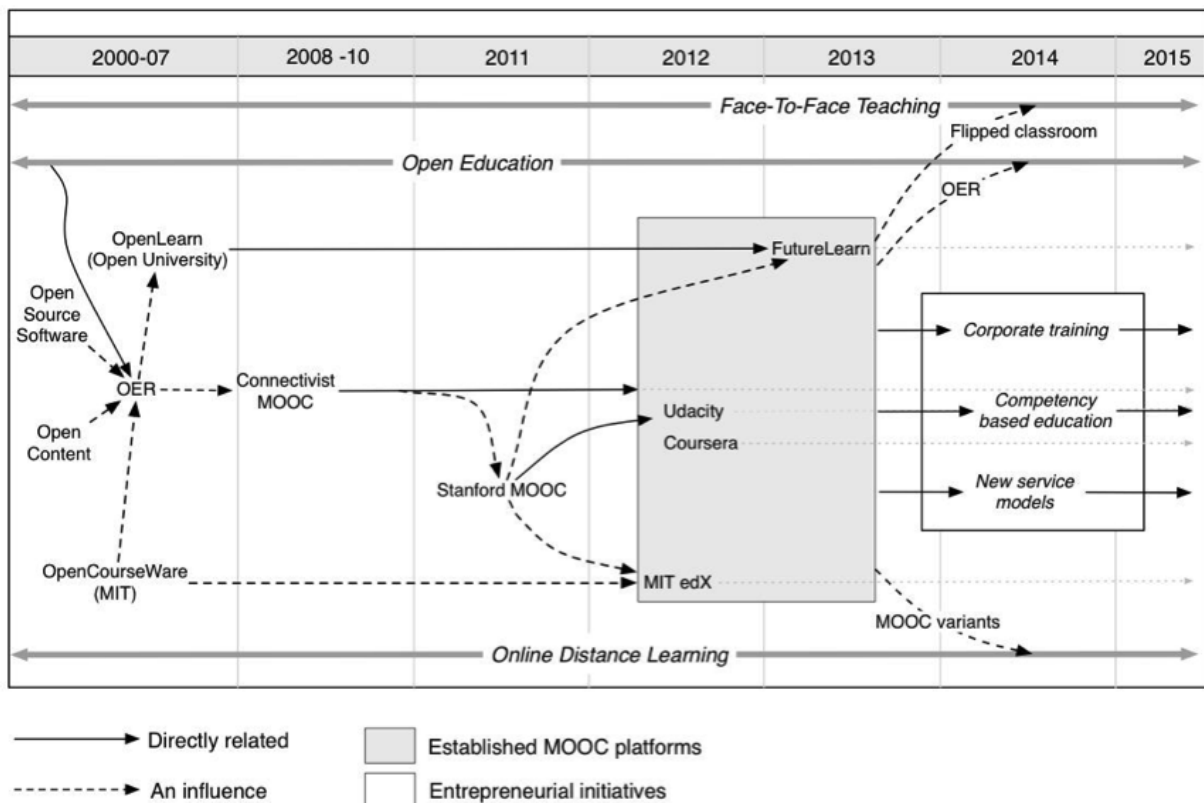


Figure 9 Yuan and Powell's (2015) Timeline of MOOC and Open Education Development. Partnership Model for Entrepreneurial Innovation in Open Online Learning. *eLearning Papers*, 41, p.1-9

Illinois (2015). *World-changing achievements, discoveries, and creations are realized at Illinois*. Research Milestones.

learning, but also emphasize the integration of information technology in education, that is, the “expansion” and “sharing” functions of information-based education. In other words, MOOC extends participation opportunities to individuals around the world, and everyone can use online learning tools to obtain digitized course materials and share knowledge and know-how through online learning communities.

The pioneer of MOOC is the OpenCourseWare (abbr. OCW) project of MIT. In 2001, MIT announced its OCW programme in the New York Times, and since then it has been being on the way to provide payment-free online learning materials by virtualising all MIT courses.⁴⁹ The goal of this project is to allow anyone to freely obtain MIT course materials from anywhere. Although this project has many incomplete or criticized aspects, for instance, OCW is not designed for personal self-learning or is unable to create a space for learners to familiarize themselves with the new course content together,⁵⁰ OCW’s idea to pave the way to the public to access high-quality university courses has become the origin of Open Educational Resources, which has led to the rise of MOOC.

Open Educational Resources refers to help directed toward solving the problem of lack of educational resources and achieving equal distribution of educational resources and educational equity through the wide circulation, acquisition and application of teaching materials based on the openness, authorization and digitization of education as it enables educators, students and self-learners all over the world to freely access, reference, and apply various educational resources for non-business use via information and communications technologies.⁵¹ The term was first adopted by the United Nations Educational, Scientific and Cultural Organization (abbr. UNESCO) in 2002 at a meeting sponsored by the William and Flora Hewlett Foundation, and was defined as:

“The open provision of educational resources, enabled by information and communication on technologies, for consultation, use and adaptation by a community of users for non-commercial purposes.”⁵²

⁴⁹ Goldberg, C. (2001, April 4). *Auditing Classes at M.I.T., on the Web and Free*. The New York Times.

⁵⁰ Abelson, H. (2008). The creation of open courseware at MIT. *Journal of Science Education and Technology*, 17(2), p.164-174.

Gillani, N., & Eynon, R. (2014). Communication patterns in massively open online courses. *Internet and Higher Education*, 23, p.18-26.

Martin, F. G. (2012). Will massive open online courses change how we teach? *Communications of the ACM*, 55(8), p.26-28.

⁵¹ D'Antoni, S. (2008). *Open educational resources: the way forward*. Economics of education, IIEP Publications.

⁵² UNESCO. (2002, July). *Forum on the impact of open courseware for higher education in developing countries: Final report*. UNESCO.

Subsequently, OpenCourseWare Consortium, OpenCourseWare-Universia, China Open Resources for Education (CORE), African Virtual University, Korea OpenCourseWare Consortium, Japan OpenCourseWare Consortium were all established one after another. As concepts like “OpenCourseWare helps to raise the quality of higher education in every corner of the globe”,⁵³ “Creative Commons”, “the world is flat and open” are gradually being recognised widely. OER movement has continued to advance in depth, and the definition has been updated to:

“Open Educational Resources (OER) are teaching, learning and research materials in any medium – digital or otherwise – that reside in the public domain or have been released under an open license that permits no-cost access, use, adaptation and redistribution by others with no or limited restrictions.”⁵⁴

The concept of OER is of great help to open education and distance education. As Wiley said, the prosperity of open source software and technology has laid the foundation for open education reform.⁵⁵ In the past decade, online education has developed rapidly, and the emergence of MOOC has enabled online education to achieve the goal of being free and open.⁵⁶

2.3.3 cMOOC vs. xMOOC

There are two main branches of MOOCs: one focuses on social connections and the other focuses on the application of teaching technology but resembles more traditional courses.

2.3.3.1 cMOOC

In 2005, George Siemens at the University of Manitoba in Canada first proposed the Connectivism learning philosophy at the Internet age. He believes that the traditional static, classified and hierarchical knowledge developed during the network era has become a dynamic, networked knowledge flow. Correspondingly, learning is also mainly

⁵³ Vest, C. M. (2002). *Opportunity and Openness*. President Charles M. Vest's Charge to the Graduates presented at the 136th Commencement Ceremonies of the Massachusetts Institute of Technology.

⁵⁴ Refer to UNESCO - Open Educational Resources.

⁵⁵ Wiley, D. (2006). Open source, openness, and higher education. *Innovate: Journal of Online Education*, 3(1).

⁵⁶ Hollands, F. M., & Tirthali, D. (2014). *MOOCs: Expectations and reality*. New York, NY: Columbia University.

the process of forming knowledge nodes in dynamically linked knowledge networks.⁵⁷ In the same year, Stephen Downes of the National Research Council of Canada proposed that Connective Knowledge should be the epistemological basis of Connectivism, and diversity, autonomy, interactivity and openness are the four characteristics of Connective Knowledge.⁵⁸

In 2008, Siemens and Downes jointly established the *Connectivism and Connective Knowledge – CCK08* at the University of Manitoba, which uses Facebook Groups, Wiki Pages, Forums and other online channels to attract students to participate in the course. This is the beginning of the MOOC story. This course was designed for 25 tuition-fee-paying students for credits, as well as for over 2,300 enrolled general public learners worldwide free of charge.⁵⁹ In response to the joint CCK08 carried out by Simmons and Downes, two Canadian scholars – Dave Cormier from the University of Prince Edward Island and Bryan Alexander from the National Institute for Technology in Liberal Education – first created the term MOOC – Massive Open Online Course.⁶⁰ They believe that MOOC is a course in which participants and curriculum resources are spread across the network. This form of learning is more effective only if the course is open and the participants reach a certain scale. MOOC is not only a collection of learning content and learners but also a way to connect teachers and learners through a common topic or discussion in a certain field. The courses launched between 2009 and 2011, such as *Connect! Your PLN Lab (PLN)*, *CCK09*, *Digital Storytelling (ds106)*, *PLE Networks and Knowledge (PLENK2010)*, *Learning Analytics & Knowledge (LAK11)*, emphasising social connectivity, collaborative learning and networked knowledge construction, believing that the acquisition of knowledge is realised through the connection of the internet and social connectivity with others, are classified and known as connectivist MOOC – cMOOC.⁶¹ cMOOCs are also referred to as: “discursive communities creating knowledge together, inspired by George Siemens.”⁶²

⁵⁷ Siemens, G. (2005). Connectivism: A Learning Theory for the Digital Age. *Instructional technology & distance learning*, 2(1), p.3-10

⁵⁸ Downes, S. (2005). *An Introduction to Connective Knowledge*.

⁵⁹ Peris-Ortiz, M., Garrigós-Simón, F. J., Gil-Pechuán, I. (2014). *Innovation and Teaching Technologies: New Directions in Research, Practice and policy*. Springer International Publishing.

⁶⁰ Cormier, D. (2008). The CCK08 MOOC-Connectivism course, 1/4 way.

⁶¹ Literat, I. (2015). Implication of massive open online courses for higher education: Mitigating or reifying educational inequities? *Higher Education Research & Development*, 34(6), p. 1164-1177; Macleod, H., Sinclair, C., Haywood, J., & Woodgate, A. (2016). Massive open online courses: Designing for unknown learner. *Teaching in Higher Education*, 21(1), p. 13-24.

⁶² Hoyle, M. A. (2012, October 19). Coursera, Pedagogy, and the two faces of MOOCs. EIn1verse.

2.3.3.2 xMOOC

Although Canada is the cradle of MOOCs and the initial MOOCs are based on the connectivism theory of learning, the boom of MOOCs started in the United States with the second generation termed eXtended MOOC, xMOOC, which uses a cognitive behavioural pedagogical model.⁶³ Based on a “one to many” knowledge transfer model, in which information is distributed to learners from a centralized source, xMOOCs are more traditionally organized large-scale content-focused online courses launched by universities or commercial entities and provided on platforms like edX, Coursera and Udacity, and which may offer certificates or credits. xMOOCs are a combination of pre-recorded lecture videos, online automatic scoring tests and other assessments.⁶⁴ George Siemens defined the difference between these two types of MOOC as: “cMOOCs focus on knowledge creation and generation whereas xMOOCs focus on knowledge duplication”.⁶⁵ Mark Smithers concluded that “in an xMOOC you watch videos, in a cMOOC you make videos”.⁶⁶

With its structured curriculum system and systematic learning platform, the organically combined new teaching organisation model and the traditional higher education system has promoted the prosperity of the new round of MOOC. A typical representative of xMOOC is the open course “*Introduction to Artificial Intelligence*” launched by Stanford engineering professor Sebastian Thrun and Peter Norvig in the fall of 2011, which attracted over 160,000 students in more than 190 countries. This course was followed within weeks by the two other Stanford MOOCs – *Machine Learning* and *Introduction to Databases*.⁶⁷ Later on, Thrun founded Udacity, a for-profit educational organisation, with two other colleagues at the beginning of 2012. After 2 months, another for-profit educational organisation Coursera which aims to offer MOOCs was launched in April 2012. The same year, a Non-profit MOOC provider and online learning platform – edX was created by the Massachusetts Institute of Technology and Harvard University

⁶³ Anderson, T. & Dron, J. (2011), Three generations of distance education pedagogy. *International Review of Research on Distance and Open Learning (IRRODL)*, 12(3), p.80-97.

⁶⁴ Bayne, S., & Ross, J. (2014). *The pedagogy of the massive open online course: The UK view*. New York, NY: The Higher Education Academy;

Literat, I. (2015). Implication of massive open online courses for higher education: Mitigating or reifying educational inequities? *Higher Education Research & Development*, 34(6), p. 1164-1177.

⁶⁵ Siemens, G. (2012, July 25). *MOOCs are really a platform*. *Elearnspace: Learning, Networks, Knowledge, Technology, Community*. Elearnspace.org.

⁶⁶ Smithers, M. (2012, October 9). *OH: in an xMOOC you watch videos, in a cMOOC you make videos* [Twitter].

⁶⁷ Lewin, T. (2012, March 5). *Instruction for Masses Knocks Down Campus Walls*. The New York Times.

in May. Since then, MOOC has rapidly developed as an American initiated education movement.

Rooted within the ideals of openness in education, MOOC provided a new pathway for knowledge acquisition and realised a worldwide sharing of high-quality education resources effectively. From Western to Eastern, like a stone falling in calm waters, MOOC set off ripples of education all over the world. Increasingly, more universities and educational institutions from different countries, especially plenty of top universities, were jumping into this MOOC bandwagon, starting or planning to offer their MOOCs. At the same time, well-financed MOOC platforms were springing up in various countries.

Table 1 Comparison of Traditional Online Education and MOOCs

	Traditional Online Education	MOOCs
Learning Environment	Relatively closed	Relatively open
Access	Pay registration fee or credit fee as required	Free registration
Participation Volume	Limited	Unlimited
Fee	With a certain tuition fee	Free, or with considerable cost
Feedback	One-side feedback, mainly from the learners	Multi-sources, mainly social connections and learning communities
Platform	Learning management systems	One or more various MOOC platforms
Learner's Background	Mostly homogeneous groups	Multi-background groups
Learning Progress	Fixed according to the course procedures designed by the instructor	More flexible, based on learner's preferences

2.3.4 Characteristics of MOOC

Unlike the traditional distance learning or open courses which only take the “teaching” part online, without interactions and learning feedback, MOOC tries to implement the entire process of education through the Internet, showing distinguishing features while possessing the characteristics of traditional classroom teaching at the same time. It is the basic common characteristics of MOOC that once made it a vogue of the time although there are clear differences among MOOC projects.

1) Large scale

MOOC has a large scale in three aspects: widespread participation, extensive interactions and massive learning data. Widespread participation refers to the increased capacity of participants, as thousands or even hundreds of thousands of learners can take a course at the same time. In a traditional class, the teaching scale is limited by the physical space and the number of teaching staff, and it is difficult for high-quality educational resources to be shared by thousands of or more people at the same time. Extensive interactions mean that there are thousands or even tens of thousands of participants in a course discussion. Once a question is raised, hundreds of participants discuss and exchange opinions from various angles of the problem. Because of the large scale of participation and interactions, massive learning data are generated. MOOC platforms take technologies such as data mining, artificial intelligence and natural language processing to analyse the tremendous amount of learning behaviour data in multiple dimensions and in depth to explore the features and laws of learning, and dynamically adjust guidance strategies and support services for learning.

2) Openness

Openness is the inherent nature of the Internet, while “opening up” is the ideal of open education. Derived from the thought of open education carried out via the Internet, MOOC integrates and expands both openness of the Internet and open education into four dimensions. First, openness in learning time and learning space. MOOC learners are not restricted by time and space as they can use mobile learning terminals to participate in a course at any time, any place, getting rid of the time and space constraints of the traditional physical classrooms. Second, openness in courses. MOOC is a global one-world classroom since its courses are freely open to everyone in the world without any restrictions on enrolment, ethnicity, race, gender, age or levels of education. Although learners need to pay a certain fee for applying for a course certificate, all course-related

data, resources, contents and services are free, which means that everyone can freely access MOOC projects and obtain information and knowledge without barriers. Third, openness in the information flow of the learning system. Participants of MOOCs, both the learning and teaching side allow contact and information exchange with the outside environment of MOOCs via network learning tools, , integrating the latest development and research achievements in the corresponding field into their courses and applying what they learn from the class into solving practical issues. Last but not the least, openness in learning authority. In traditional education, the power of discourse and discretion are on the teaching side. Teachers decide what to learn, when to learn and how to learn, and learners passively execute the fixed learning tasks and plans. MOOC weakens the authority in learning, shifting the rights back to learners. Learners learn at their own interests and pace, and can even vote on their feet if they do not find the courses satisfying. When interacting and communicating with peers and course facilitators via social media, learners are the ones responsible for constructing their knowledge, achieving true freedom of academic and speech.

3) Networking

MOOC shows a networked characteristic in three dimensions: learning environment, individual learning and course content. Networked learning environment – MOOC learning resources are generated and disseminated via the web, and its teaching and learning activities are carried out on the Internet with the support of various online learning tools. Networked individual learning – participating in a MOOC learning project is a process of building an internal knowledge network and external ecological network because learners update their knowledge network through the assimilation of and adaptation to new things, they construct individual social networks and knowledge ecological network via social media.⁶⁸ Networked course content – MOOC is a distributed content-based system with course content scattered in fragments across various connections in an interwoven network of participants, course facilitators, social media, learning resources and artefacts.

4) Adaptability

As a new education model, one of the significant characteristics of MOOC that distinguishes it from traditional education is its high adaptability. Different from the traditional classes which normally consist of one lecturer and a certain number of students,

⁶⁸ Siemens, G. (2011). *Orientation: Sensemaking and Wayfinding in Complex Distributed Online Information Environments*. British Columbia: University of Aberdeen.

the large-scale MOOC classes are designed for an indefinite number of participants, customised for network use with high flexibility and expandability.

On the one hand, MOOC can meet the needs of personalised learning compared to traditional education. Learners decide the learning content and pace, selecting courses and learning approaches in accordance with their own interests and needs and customising learning plans in line with their own knowledge base. Meanwhile, MOOC platforms offer personalised recommendation services for MOOC programmes and resources by using a collaborative filtering recommendation algorithm to reckon courses that may be of interest to the learners based on their personal profiles and learning behaviours, supporting learners to set up individualised learning solutions, extracting and recommending learning resources which meet the cognitive needs of the learners from massive learning information. Furthermore, MOOC can embed learning scenarios in personalised learning. By getting rid of the limitations of traditional physical classes and laboratories, its mobility empowers learners to flexibly integrate course learning with the specific situations they are in, actualising personalised learning based on scenarios.⁶⁹

On the other hand, the flexibility of MOOC enables it to supplement traditional education. As a product of education information, MOOC is not only a high-degree integration of information technology and learning programmes but also the most representative product of educational technology development and the latest revolutionary educational paradigm in the era of digital information. From the teaching and learning perspective, MOOCs' diversification of teaching media and methods, such as rich text, Flash, HTML5, video, mini-lectures, quizzes, discussion, virtual experiment makes teaching simple and easy, giving better play to students' initiative; the "short video (mostly last around 10–20 minutes) + interactive exercises" basic teaching unit enables a fragmentation study, which corresponds with the attention mechanism of humans; the various interactive user forums emphasising on the students' learning experience as well as the support service to the participants help to establish a learning community between students, lecturers and teaching assistants; the peer-graded assessment in different-background teaching activities enhances the interactive communication between individual learners and reduces the heavy burden of the instructors; the personalised learning experience can make up for the lack of differentiated teaching in traditional

⁶⁹ deWaard, I., Abajian, S., Gallagher, M. S., Hogue, R., Keskin, N., Koutropoulos, A., & Rodriguez, O. C. (2011). Using mLearning and MOOCs to understand chaos, emergence, and complexity in education. *The International Review of Research in Open and Distributed Learning*, 12(7), p.94-115.

classroom teaching. From the perspective of education equity, MOOCs can be a beneficial way to solve the shortage and uneven allocation of high-quality educational resources. In the context of economic globalisation, the ways of developing and acquiring educational resources are getting globalised. This is an important feature of MOOC and the environment it depends on for existence and development. The globalisation of knowledge breaks the monopoly of educational resources and knowledge in traditional education, making it possible for anyone from anywhere in the world to learn and participate in the association and reconstruction of knowledge through MOOCs at any time and place just with Internet access. Because of the large scale, openness and easy access of MOOCs, education is no longer a luxury belonging to elites. Because of the large-scale nature, openness and easy accessibility of MOOCs, education is no longer a luxury belonging to elites. By breaking information barriers and crossing borders of knowledge, it is available to everyone who hungers for it, regardless of income, levels of education, ethnicity, race, region, gender and age.

5) Participatory

Being participatory is one of the significant differences between MOOCs and Open Video Lessons, Online Quality Courses and OpenCourseWare. Although all of the mentioned courses share high-quality course resources including course curriculum, assignment, handouts, question banks, courseware and teaching videos via the Internet, MOOC is the one that attempts to complete the entire course teaching and learning process online by making learners and teachers participate in the courses online. A MOOC project contains certain teaching methods and teaching activities like in-class interpretation, quizzes, virtual experiments, teacher-student dialogue, seminars, assignment evaluation, group collaboration, final exams, etc. To complete a MOOC project, learners are required to actively join in the teaching activities mentioned above in addition to watching teaching videos. Taking the advantage of the Internet's automatic tracking and recording function, MOOCs' learning system records and preserves the learning behaviours shown in one's online learning activities to mine the information and laws hidden behind big learning data through the use of learning behaviour analysis algorithms. Formative evaluations will be fed back to learners and teachers in time to provide more personalised learning guidance for learners and to help teachers to teachers employ more appropriate strategies and methods to improve teaching quality scientifically and comprehensively based on a clear overview of the teaching effect.

3 The Question of Previous Research: How are MOOCs portrayed in Western News Media?

MOOCs and previous innovations in the educational sector differ in that the subject of “MOOCs” has received an exceptionally high level of interest in the mainstream newspapers. So far, content analyses of the newspapers coverage of MOOCs are available for

- Australia
- Canada
- Great Britain
- New Zealand and
- the United States of America.

The existing research focused on answering the question of how MOOCs were portrayed in newspapers in those countries studied by the researchers.

3.1 Newspaper Coverage of MOOCs in Australia, Great Britain and the USA (2012 – 2013)

The analysis of the newspaper coverage of MOOCs in Australia, Great Britain and the USA is the subject of the research of Scott Bulfin, Luci Pangrazio and Neil Selwyn from Monash University, Australia. The researchers have published two articles on their research. The first article *The Construction of a New Digital Higher Education within News Media Discourse*⁷⁰ was published by Bulfin, Pangrazio and Selwyn in 2014, and the second *Massive open online change? Exploring the discursive construction of the ‘MOOC’ in newspapers*⁷¹ was published by Selwyn, Bulfin and Pangrazio in 2015.

According to the researchers, a large-scale corpus of text was constructed encompassing news media stories produced between January 2012 and December 2013 in two areas of English language sources, six popular newspapers and three educational news media.

Bulfin and his fellows thoughtfully selected 6 popular news outlets from the US,

⁷⁰ Bulfin, S., Pangrazio, L. & Selwyn, N. (2014). Making 'MOOCs': The Construction of a New Digital Higher Education within News Media Discourse. *The International Review of Research in Open and Distance Learning (IRRODL)*, 15(5), p.290-305, hereinafter Bulfin et al. (2014).

⁷¹ Selwyn, N., Bulfin, S. & Pangrazio, L. (2015), Massive Open Online Change? Exploring the Discursive Construction of the ‘MOOC’ in Newspapers. *Higher Education Quarterly*, 69(2), p.175–192. DOI: 10.1111/hequ.12061, hereinafter Bulfin et al. (2015).

UK, Australia, including *New York Times* (US), *Times* (UK) and *Australian* (Australia), the “newspapers of record” of the three countries, as well as *Washington Post*, *Guardian* and *Age*, and also the corresponding national newspapers in each country that focused on education and technology issues. Alongside these newspapers, the other three specialist educational media, *Chronicle*, *Times Higher Education* and *Education Week* were also selected for their abiding reputations as authoritative sources in the area of higher education and their continued attention to MOOCs. With the search terms “MOOC or Udacity or edX or Coursera”, they obtained a sample of 456 different articles from these outlets from Factiva for the study.⁷²

As written in their report, the researchers did not analyse the full content of these 475 articles, but only “two elements”:

- First, the headlines, which intend to attract readers with “an initial summary” that the editor considers as the most relevant or appealing. Bulfin et al. coded a total of 371 headlines that were specifically related to MOOCs.
- Second, the in-text description of MOOCs. Bulfin et al. identified and coded a total of 281 such descriptions, which generally consist of one or two lines, with an average of no more than 15 words.⁷³

The research by Bulfin et al. resulted in **fourteen themes** in the headlines and in-text descriptions of the MOOC articles. The content analysis shows the importance of a single theme compared to the other themes.

According to Bulfin et al., there were four meanings and issues regarding MOOCs that are prevalent in the researched publications. The themes are

- Change (n=125),
- Free (n=107),
- Size and Scale (n=102) and
- High-profile elite universities (n=65).⁷⁴

Less prevalent are meanings and issues such as

- Higher education marketplace (n=50)
- Pedagogy (n=45)
- Global/local phenomenon (n=43)
- Assessment (n=40)

⁷² Bulfin et al. (2014), p.292

⁷³ Bulfin et al. (2014), p. 293.

⁷⁴ Bulfin et al. (2014), p. 294.

- Teachers (n=35)
- Technology (n=26)
- Business and economic aspects (n=20)
- Content (n=18)
- Learning (n=16)
- Students (n=15) ⁷⁵

In providing a more detailed explanation of the individual themes, Bulfin et al. focused on the four prevalent themes: Change, Free, Size and Scale, High-profile elite universities.

The researchers concluded that the theme of “change” was associated with the following expressions in the publications studied.

- “digital change agent”⁷⁶
- “creative destruction”⁷⁷
- “disrupting centuries-old models”⁷⁸
- “path breaking”⁷⁹
- “learning's new path”⁸⁰
- “juggernaut”⁸¹
- “phenomenon”⁸²
- “game-changing”⁸³
- “changes the game”⁸⁴
- “an avalanche”⁸⁵
- “radical experiments in higher education”⁸⁶
- “a new beast in the academy”⁸⁷ or
- “disruptive dragon”⁸⁸.

⁷⁵ Bulfin et al. (2014), p. 294.

⁷⁶ Bulfin et al. (2014), p. 295, with reference to The Chronicle of Higher Education, March 4, 2013.

⁷⁷ Bulfin et al. (2014), p. 295, with reference to the Chronicle of Higher Education, March 25, 2013.

⁷⁸ Bulfin et al. (2014), p. 295, with reference to the Chronicle of Higher Education, October 28, 2013.

⁷⁹ Bulfin et al. (2014), p. 295, with reference to Chronicle of Higher Education, March 25, 2013.

⁸⁰ Bulfin et al. (2014), p. 295, with reference to The Australian, August 17, 2013.

⁸¹ Bulfin et al. (2014), p. 295, with reference to The Australian, November 11, 2012.

⁸² Bulfin et al. (2014), p. 295, with reference to Washington Post, August 29, 2013.

⁸³ Bulfin et al. (2014), p. 295, with reference to Times Higher Education, December 20, 2012.

⁸⁴ Bulfin et al. (2014), p. 295, with reference to Age, June 5, 2012.

⁸⁵ Bulfin et al. (2014), p. 296, with reference to Guardian, April 30, 2013.

⁸⁶ Bulfin et al. (2014), p. 295, with reference to Times, October 17, 2012.

⁸⁷ Bulfin et al. (2014), p. 296, with reference to Times Higher Education, December 6, 2012.

⁸⁸ Bulfin et al. (2014), p. 296, with reference to Times Higher Education, December 6, 2012.

or sometimes sentences such as

- “The MOOC is the latest stage in a series of technological changes that have made life easier for students and their teachers but have made the traditional lecture look ever more of an endangered species”⁸⁹

The second prominent theme regarding MOOCs is the more uniformly expressed characteristic of being “free”. The term is used in a monetary sense just like when you hear “free beer”⁹⁰. The ostensibly no-cost nature of MOOCs is described with

- “free education”⁹¹
- “university education of ‘the kind once available only to students paying tens of thousands of dollars in tuition at places like Harvard and Stanford’”⁹²
- “university-level education being offered to students ‘at no charge’”⁹³
- “undergraduate-level courses without any fees”⁹⁴

or headlines such as

- “The Tuition is Too Damn High, Part IX: Will MOOCs save us?”⁹⁵

According to Bulfin et al., the third defining feature of MOOCs is their size and scale. “Massive”, the opening word of the acronym MOOC was synonymized with different phrases such as

- “huge”⁹⁶
- “giant”⁹⁷
- “mass”⁹⁸
- “mega”⁹⁹
- “education on a ‘very large-scale’”¹⁰⁰
- “reaching ‘a very large number of people’”¹⁰¹

⁸⁹ Bulfin et. al. (2014), p. 296, with reference to Times Higher Education, June 5, 2012.

⁹⁰ Bulfin et. al. (2014), p. 296, with reference to Guardian, December 4, 2012.

⁹¹ Bulfin et. al. (2014), p. 296, with reference to the Guardian, December 4, 2012.

⁹² Bulfin et. al. (2014), p. 296, with reference to Chronicle of Higher Education, June 6, 2013.

⁹³ Bulfin et. al. (2014), p. 296, with reference to Washington Post, November 11, 2012.

⁹⁴ Bulfin et. al. (2014), p. 296, with reference to the Times, July 17, 2012.

⁹⁵ Bulfin et. al. (2014), p. 296, with reference to Washington Post, September 5, 2013.

⁹⁶ Bulfin et. al. (2014), p. 296, with reference to Chronicle of Higher Education, July 7, 2012; Times, June 20, 2013.

⁹⁷ Bulfin et. al. (2014), p. 296, with reference to New York Times, March 11, 2013.

⁹⁸ Bulfin et. al. (2014), p. 296, with reference to Australian, July 8, 2012

⁹⁹ Bulfin et. al. (2014), p. 296, with reference to Chronicle of Higher Education, September 17, 2012.

¹⁰⁰ Bulfin et. al. (2014), p. 296, with reference to Australian, November 27, 2012.

¹⁰¹ Bulfin et. al. (2014), p. 296, with reference to Washington Post, August 28, 2013.

- “mass engagement”¹⁰²
- “thousands of students”¹⁰³
- “tens of thousands of people”¹⁰⁴
- “courses with more than 100,000 people enrolled”¹⁰⁵
- “150,000 students”¹⁰⁶
- “millions of learners around the world”¹⁰⁷
- “opening higher education to hundreds of millions of people”¹⁰⁸
- “unlimited capacity for enrolment”¹⁰⁹

The fourth major theme that Bulfin et al. found in the coverage is the notion that MOOCs are synonymous with high-profile elite universities. And the relevant phrases are

- “leading unis”¹¹⁰
- “top universities”¹¹¹
- “world-leading universities”¹¹²
- “leading academic brands”¹¹³
- “elite”¹¹⁴
- “prestigious”;¹¹⁵
- “stellar”¹¹⁶
- “‘star’ institutions”¹¹⁷
- “nation’s most prestigious research universities”¹¹⁸

¹⁰² Bulfin et. al. (2014), p. 296, with reference to Times Higher Education, October 18, 2012.

¹⁰³ Bulfin et. al. (2014), p. 296, with reference to The Chronicle of Higher Education, June 11, 2012; October 1, 2012; May 8, 2013.

¹⁰⁴ Bulfin et. al. (2014), p. 296, with reference to Washington Post, August 24, 2013.

¹⁰⁵ Bulfin et. al. (2014), p. 296, with reference to Chronicle of Higher Education, October 1, 2012.

¹⁰⁶ Bulfin et. al. (2014), p. 296, with reference to New York Times, July 22, 2012.

¹⁰⁷ Bulfin et. al. (2014), p. 297, with reference to Washington Post, May 3, 2012.

¹⁰⁸ Bulfin et. al. (2014), p. 296, with reference to New York Times, July 17, 2012.

¹⁰⁹ Bulfin et. al. (2014), p. 297, with reference to Chronicle of HE, October 22, 2012.

¹¹⁰ Bulfin et. al. (2014), p. 297, with reference to Guardian, June 18, 2013.

¹¹¹ Bulfin et. al. (2014), p. 297, with reference to New York Times, April 18, 2012; Times, September 16, 2013; Times Higher Ed, July 17, 2012.

¹¹² Bulfin et. al. (2014), p. 297, with reference to Age, October 2, 2012.

¹¹³ Bulfin et. al. (2014), p. 297, with reference to Washington Post, May 4, 2012.

¹¹⁴ Bulfin et. al. (2014), p. 297, with reference to Washington Post, May 2, 2013; November 4, 2012; February 7, 2013.

¹¹⁵ Bulfin et. al. (2014), p. 297, with reference to Times Higher Education, March 21, 2013; May 10, 2012; Chronicle of Higher Education, June 18, 2012.

¹¹⁶ Bulfin et. al. (2014), p. 297, with reference to Australian, November 8, 2013.

¹¹⁷ Bulfin et. al. (2014), p. 297, with reference to Times Higher Education, December 20, 2012; Chronicle of HE November 5, 2012.

¹¹⁸ Bulfin et. al. (2014), p. 297, with reference to Chronicle of Higher Education, October 1, 2012.

- “US's Ivy League”,¹¹⁹
- Ivy League lends knowledge¹²⁰.

3.2 Newspaper Coverage of MOOCs in Canada (2012 – 2014)

Delia Dumitrica of Erasmus University Rotterdam in the Netherlands has analysed the coverage of MOOCs in Canadian newspapers. Her article was published in 2017 under the title “*Fixing higher education through technology: Canadian media coverage of massive open online courses*”¹²¹.

Using the keyword MOOC, the author retrieved 48 MOOC-related stories, which were published in national and local English-language newspapers between July 2012 and March 2014 from the Canadian Newsstand database and the Education Magazine website, as the corpus for the study.¹²²

Like the aforementioned Bulfin et al., Dumitrica also listed the newspapers involved in his research. These are:

- Calgary Herald (Alberta),
- Edmonton Journal (Alberta),
- Kamloops Daily News (British Columbia),
- National Post (national),
- Star-Phoenix (Saskatchewan),
- The Gazette (Quebec),
- Telegraph-Journal (New Brunswick),
- The Globe and Mail (national),
- The Sooke Mirror (British Columbia),
- The Spectator (Ontario),
- The Vancouver Sun (British Columbia),
- Times-Colonist (British Columbia),
- Toronto Star (Ontario),
- Trail Times (British Columbia),

¹¹⁹ Bulfin et. al. (2014), p. 297, with reference to Australian, August 17, 2013.

¹²⁰ Bulfin et. al. (2014), p. 297, with reference to Australian, July 4, 2012.

¹²¹ Dumitrica, D. (2017). Fixing higher education through technology: Canadian media coverage of massive open online courses. *Learning, Media and Technology*, 42(4), p.454-467, hereinafter Dumitrica (2017).

¹²² Dumitrica (2017), 458.

- Victoria News (British Columbia),¹²³

and two higher education magazines:

- University Affairs and
- Academic Matters.¹²⁴

By analysing the articles from these fifteen newspapers and two magazines, Dumitrica summarised 13 themes of coverage, in order of frequency, as:

- Money (n=42)
- Access (n=33)
- Pedagogy (n=28)
- Credentials (n=21)
- Faculty (n=20)
- International support (n=20)
- Quality (n=17)
- Students (n=14)
- Conflict (n=13)
- Platform (n=11)
- Educational research (n=07)
- Types of MOOCS (n=4)
- Digital divides (n=2)¹²⁵

Dumitrica discussed the two most important themes – Access and Money – in more detail, with references to relevant passages from the newspapers and magazines.

Starting with the theme “Access”, Dumitrica elaborated more specifically on “Democratizing access to higher education”.¹²⁶ According to Dumitrica, “MOOCs are presented as making quality education available to everyone, by removing spatial, traditional/cultural and economic barriers”¹²⁷, and were portrayed as

- “a great equalizer in access to education”¹²⁸,

¹²³ Dumitrica (2017), p.458.

¹²⁴ Dumitrica (2017), p.458.

¹²⁵ Dumitrica (2017), p. 459.

¹²⁶ Dumitrica (2017), p. 459.

¹²⁷ Dumitrica (2017), p.459.

¹²⁸ Dumitrica (2017), p.459, with reference to Seidman, K. (2013, October 29). *McGill Takes a Stab at Digital Education*. The Gazette, A6.

- a way “to democratize higher education using the power of Internet connectivity”¹²⁹.

In Dumitrica’s analysis, arresting phrases such as “20,000 people from 150 countries”¹³⁰ and the trend that MOOCs become a globalizing phenomenon are regarded as the proof of the unrestricted access to MOOCs for unlimited participants. Such participants can be anyone hungry for education according to an article cited by Dumitrica:

“There are 30-somethings who never went to university and never earned a degree, and are searching for skills that might lead to a job. There is an octogenarian with a curious streak and a stable of retirees looking for a chance to buck the stereotypes of a generation that grew up without computers. And there is a student from Malaysia.”¹³¹

Dumitrica identifies the expectation of MOOC in Canadian media as breaking down the limitations of spatial distance and traditional cultural perception on student identity.

The fact that MOOCs mean more than just access to any course, but access to courses from the world's leading universities, is another point in the Canadian news. MOOCs are depicted as

“drastically chang[ing] distance learning, breaking down the barriers of geography and fees, while connecting students across the globe with each other and with some of the world’s top teaching talents”.¹³²

And MOOCs are expected to help achieve the “future where the world’s poorest have access to the world’s most renowned experts”.¹³³

According to Dumitrica’s research, “money” is the second big topic in MOOC coverage in Canada. The respective articles undertake an economic framing of the education system in general and MOOCs in particular. This framing is enacted through the use of terms such as

- costs

¹²⁹ Dumitrica (2017), p. 259, with reference to Butosi, C. (2012, August 24). *Coursera, or Socrates Was Not a Content Provider: The University of Toronto and Coursera Agreement*. Academic Matters.

¹³⁰ Dumitrica (2017), p.460, with reference to Schwarcz, J. (2014, January 18). *Course Offers Food for Thought on Changing Scientific Advice*. The Gazette, B5.

¹³¹ Dumitrica (2017), p.460, with reference to Bradshaw, J. (2012, October 8). *Building Open-Learning Platforms in Canada*. The Globe and Mail, A6.

¹³² Dumitrica (2017), p. 460, with reference to Bradshaw, J. (2012, October 8). *Building Open-Learning Platforms in Canada*. The Globe and Mail, A6.

¹³³ Dumitrica (2017), p. 460, with reference to Singh, A., & Adelman, H. (2013, January 16). *How Open Courses Are Changing the Modern University*. University Affairs.

- revenues
- venture capital
- returns on investment
- revenue streams
- customers
- budgets or
- zero marginal cost.¹³⁴

Dumitrica noticed that one recommendation given by the news is to apply market logic to education, that is to “stop running them from the top down and instead free them up and let them compete”.¹³⁵

Many articles take the view that the soaring costs of universities and the associated rising tuition fees are the result of the inefficiency of gigantic “brick-and-mortar” institutions. According to these articles, MOOCs have the potential to become the solution to prohibitive infrastructural and tuition costs:

“MOOCs might cut the ground out from under complaints that tuition costs represent a barrier to pursuing one’s education: Students in a few years might have the option of taking very inexpensive courses from profs at France’s renowned grandes ecoles or Harvard”¹³⁶

The fact that offering free MOOCs inevitably incurs costs for the providers of the courses raises the question of the business model which is unclear so far according to Canadian News. In some articles one can read sentences such as “none of the providers has devised a way of making money from a MOOC although they have floated some ideas”¹³⁷. Dumitrica collected all the suggestions from the media and lists them as follows:

- “offering courses for free, but charging for credentials;
- charging small fees per course;
- attracting students from less prestigious universities who will pay per course;

¹³⁴ Dumitrica (2017), p. 461.

¹³⁵ Dumitrica (2017), p. 461, with reference to Watson, W. (2012, December 6). *Will MOOCs Take Out the Mooks?* National Post, FP11.

¹³⁶ Dumitrica (2017), p. 462, with reference to Aubin, H. (2013, February 2). *Summit Avoids Key Issues; Universities Face Impending Cataclysm from Technological Revolution*. The Gazette, A2.

¹³⁷ Dumitrica (2017), p. 462, with reference to Tamburri, R. (2012, November 7). *All about MOOCs*. University Affairs.

- monetizing the content developed for the course, by selling it to other interested parties;
- charging potential employers for access to lists of top students;
- adopting a sponsorship model, where corporate sources pay for developing the MOOC.”¹³⁸

3.3 Newspaper Coverage of MOOCs in New Zealand (2012 – 2016)

The analysis of New Zealand's news coverage of MOOCs comes from the research of Yvonne Rowan of the Eastern Institute of Technology and Maggie Hartnett of Massey University. The research is published under the title “How Have MOOCs Been Portrayed in the New Zealand Public Media?”¹³⁹

The text corpus of the study consists of 27 selectively searched articles with the keywords “MOOC” and “Massive Open Online Course”, collected from the Newztext, Library Press Display, National Library of New Zealand Catalogue/Index New Zealand databases, and online websites of New Zealand mainstream newspapers (excluding popular New Zealand magazines, specialist media on non-related topics and community newspapers). These screened articles, with data range parameters of 1st January 1960 to 28 June 2018, contained informative or evaluative comments on MOOCs for the Newzealand public.¹⁴⁰

Unlike Bulfin et al. and Dumitricia who directly listed the media sources of their analysed articles, Rowan and Hartnett did not provide a list of the analysed media (newspapers, magazines, etc.). When reading the article, one is referred to at least the following publications.

- Daily Post
- Dominion Post
- New Zealand Herald
- Otago Daily Times
- Press
- Southland Times

¹³⁸ Dumitricia (2017), p. 462.

¹³⁹ Rowan, Y., & Hartnett, M. (2019). How Have MOOCs Been Portrayed in the New Zealand Public Media? *Journal of Open, Flexible and Distance Learning*, 23(2), 25-41, hereinafter Rowan & Hartnett (2019).

¹⁴⁰ Rowan & Hartnett (2019), p. 29-30.

- Stuff
- Sunday Star-Times
- Taranaki Daily Times

Comparing Rowan & Hartnett’s research with the previous research of Dumitricia, one may notice a fundamental difference. Although Dumitricia is of course aware of the basic work of Bulfin et al., she nevertheless started from scratch with her analysis of Australian media. In contrast, Rowan and Hartnett explicitly used the findings of previous studies on MOOCs reporting in Australia, Canada, the UK and the US as the foundation and starting point of their own research. Their study explored representations of MOOCs in the New Zealand news media to determine if the “six emergent themes” (MOOCs as change agents, MOOC providers and elite universities, MOOCs and openness, MOOCs and commodification of higher education, pedagogical approaches of MOOCs, and the influence of MOOCs)¹⁴¹ extracted from previous research are reflected, or whether there are other prominent themes. So, Rowan and Hartnett worked with six familiar themes and one additional theme (MOOCs as experimental)¹⁴².

Based on and with reference to the previous research of Bulfin et al. and Dumitricia, the six familiar themes are described by Rowan and Hartnett as follows:

- Change – “based on the idea that MOOCs are a disruptive innovation, set to revolutionize existing higher education systems. Included is the presentation of MOOCs as ahistorical and as a new phenomenon which is also an evolutionary technological development. It incorporates the sense that MOOCs are both a radical yet inevitable solution to an implied inefficient and problematic higher education system”.¹⁴³
- MOOC providers and elite universities – “incorporates reporting of MOOCs as driven by elite universities, the mention of the MOOC provider companies and their venture capital funding, and the massiveness of MOOCs in terms of large investment into the provider companies”.¹⁴⁴

¹⁴¹ Rowan & Hartnett (2019), p. 26.

¹⁴² Rowan & Hartnett (2019), p. 29-30.

¹⁴³ Rowan & Hartnett (2019), p. 41.

¹⁴⁴ Rowan & Hartnett (2019), p. 41.

- Openness – “includes reporting of MOOCs as free. This typically involves the interpretation of free in terms of fee free, and references to MOOCs as democratising as they make education widely available. It is based on the concept of openness, and accessibility to higher education”.¹⁴⁵
- Commodification – “includes presentations of higher education as a commodity rather than a process, which places higher education as a player in a globalized, or even a national, free market. It includes the MOOC provider’s position in the delivery of higher education, reference to unbundling of education and changes to credentialing as the marketization of higher education is fostered and enabled through the adoption of MOOCs”.¹⁴⁶
- Pedagogy – “refers to mentions of teaching and learning, and the pedagogy of MOOCs. It includes assumptions and interpretations of what teaching and learning entails and the construction and/or dissemination of knowledge. Related to this are assumptions or discussion regarding the role of educators”.¹⁴⁷
- The actuality of MOOCs – “includes reports of “the extent of the adoption of MOOCs and whether the forecasts of a disrupted higher education system and global impact have or have not occurred”.¹⁴⁸

For the seventh theme added to the list, Rowan and Hartnett wrote:

- MOOCs as experimental – “includes references to the uncertainty of the application of MOOCs, their future in higher education, or their business viability”.¹⁴⁹

The analysis of Rowan and Hartnett revealed the following frequencies in the New Zealand news media for these seven themes:

1. Change (n=17)
2. Openness (n=17)
3. Providers and elite universities (n=14)
4. Commodification (n=14)

¹⁴⁵ Rowan & Hartnett (2019), p. 41.

¹⁴⁶ Rowan & Hartnett (2019), p. 41.

¹⁴⁷ Rowan & Hartnett (2019), p. 41.

¹⁴⁸ Rowan & Hartnett (2019), p. 41.

¹⁴⁹ Rowan & Hartnett (2019), p. 41.

5. Pedagogy (n=12)
6. MOOCs as experimental (n=12)
7. Actuality of MOOCs (n=7)¹⁵⁰

The content analysis first shows that there are many similarities between reports in New Zealand and other countries. Regarding the similarities, the researchers pointed out that the issues that played a role in the coverage of MOOCs abroad are also found in the New Zealand mainstream news media. This statement is supported by numerous quotes from the MOOC coverage. Here are some examples:

MOOCs were presented as forcing an “international revolution”¹⁵¹ to higher education, which was pictured as important as the “invention of the printing press”¹⁵² and was expected to generate a devastating impact on higher education just as the Internet has done to the “music and newspaper industries”,¹⁵³ with a “potential to transform traditional, campus-based learning and globalize higher education”¹⁵⁴. And “this globalizing aspect is seen in references to open and widespread availability of higher education due to MOOCs being ‘mostly free and aimed at mass audiences’”.¹⁵⁵

According to reports, the technological innovation of MOOCs may help to reduce the burden of higher education on taxpayers. The Press cited a report by Ernst & Young, which suggested that if higher education needs to be financially streamlined through operational changes, reducing government “would force universities to ‘fundamentally reinvent themselves’”.¹⁵⁶ Therefore, MOOCs are viewed as the “saving grace”¹⁵⁷ due to “flat lining government funding”.¹⁵⁸

The cost-cutting potential of MOOCs is seen not in the least by reducing staff numbers and replacing educators with course facilitators, “for many academics this is

¹⁵⁰ Rowan & Hartnett (2019), p. 32.

¹⁵¹ Rowan & Hartnett (2019), with reference to Stuff (2013, July 7). *Massey to offer open classes online*. Southland Times, para. 17.

¹⁵² Rowan & Hartnett (2019), with reference to Jones, N. (2014, May 28). *Online and free: lessons for the future*. New Zealand Herald, para. 6.

¹⁵³ Rowan & Hartnett (2019), with reference to Taranaki Daily Times (2013, January 15). *Internet challenges universities*. Taranaki Daily Times, para. 1.

¹⁵⁴ Rowan & Hartnett (2019), with reference to Pearl, H. (2013, July 20). *Online courses a ‘game-changer’*. Stuff, para. 3.

¹⁵⁵ Rowan & Hartnett (2019), with reference to Pearl, H. (2013, July 20). *Online courses a ‘game-changer’*. Stuff, para. 3.

¹⁵⁶ Rowan & Hartnett (2019), with reference to Pullar-Strecker, T. (2012, November 28). *Free online courses pose huge challenge for NZ universities*, Press, para. 7.

¹⁵⁷ Rowan & Hartnett (2019), with reference to Walters, L. (2015, November 3). *University of Auckland launches first online course*. Stuff, para. 20.

¹⁵⁸ Rowan & Hartnett (2019), with reference to *Internet challenges universities*. (2013, January 15). Taranaki Daily Times, para. 8.

code for lower pay and lost jobs”.¹⁵⁹ These descriptions of the urgency of changes imply that “time was running out” and that universities are pushed to adopt MOOCs in order to avoid being “guillotined”¹⁶⁰ by the MOOC movement.

In addition to this kind of remarks that MOOCs would shake up higher education, there is another voice that regards MOOC not as “a replacement for a traditional university education but a step in the right direction”,¹⁶¹ viewing the participation of MOOC providers as a normalized feature of higher education based on partnerships between elite universities and private MOOC providers. New Zealand universities adopt a model similar to the collaboration between “many of America’s top tier universities” and US MOOC providers, as the impressions like “following in the footsteps of Ivy League giants”¹⁶² help in making the participation of private MOOC providers in higher education more convincing and promoting the public’s acceptance of MOOCs.

The commercial value of MOOC in the field of higher education reflects the commodity nature of higher education. MOOC is seen as a marketing opportunity for universities to expand their visibility and influence. “The global education market is a very, very big market that is growing . . . we want to get some experience and some publicity”¹⁶³, with this in mind, many institutions are “offering courses free online to grow their ‘global brand’”.¹⁶⁴ Some articles say that the touted humanitarian benefits cannot hide the marketing motivation of MOOC:

“At work here is a blend of philanthropy, turning education into a global public good; of self-interest, for there may be ways of making money from this and for now it achieves brand recognition.”¹⁶⁵

In addition, there is frequent discussion about the role of higher education in fulfilling the needs of industry. According to one article, the function of higher education

¹⁵⁹ Rowan & Hartnett (2019), with reference to Laxon, A. (2013, September 14). *Wide open university*. New Zealand Herald, para. 36.

¹⁶⁰ Rowan & Hartnett (2019), with reference to *Universities face online assault*. (2013, July 26). New Zealand Herald, para. 6.

¹⁶¹ Rowan & Hartnett (2019), with reference to Walters, L. (2015, November 3). *University of auckland launches first online course*. Stuff, p11.

¹⁶² Rowan & Hartnett (2019), with reference to Stuff (2013, July 7). *Massey to offer open classes online*. Southland Times, para. 4.

¹⁶³ Rowan & Hartnett (2019), with reference to Pearl, H. (2013, July 20). *Online courses a ‘game-changer’*. Stuff, para. 11.

¹⁶⁴ Rowan & Hartnett (2019), with reference to Pullar-Strecker, T. (2012, November 28). *Free online courses pose huge challenge for NZ universities*. Press, para. 3.

¹⁶⁵ Rowan & Hartnett (2019), with reference to *Universities bend to change*. (2012, September 22), para. 11.

is “to deliver recruits who have skills the firms actually need”.¹⁶⁶

Besides these similarities with foreign media coverage of MOOCs that was analysed by Bulfin et al. and Dumitricia before, Rowan and Hartung also see a difference. Some of the articles in the New Zealand newspapers show the uncertainty of the application of MOOCs, their future in higher education and their business viability. Uncertainty is represented by formulations such as

- “I don’t think we can be left out of the experiment”¹⁶⁷
- “the sector had yet to establish what MOOCs would mean for New Zealand universities”¹⁶⁸

And the question of whether the business model is sustainable seems to be an open question. People see the business model for MOOCs as “hangs by a thread”¹⁶⁹, and just one in all the analysed articles deemed that MOOCs were “not uncharted territory”.¹⁷⁰ The experimental nature of MOOCs is expressed in opinions that go along the lines that MOOCs in higher education have “an uncertain future”¹⁷¹, and “technology supports but does not replace the teacher in the education process”.¹⁷²

In one article, the advantage of MOOCs outside of a university curriculum is assumed and MOOCs are seen as being suitable programme tasters and useful for those wanting to learn for professional development or personal interest:

- “The biggest winner is the average person with a curiosity for knowledge.”¹⁷³

In another article, MOOCs are seen – somewhat ironically – as a disruptive innovation that has “fallen flat”.¹⁷⁴

In summary, Rowan et Hartnett concluded that the New Zealand newspapers more

¹⁶⁶ Rowan & Hartnett (2019), with reference to Sunday Star-Times (2015, February 08). *World*. Sunday Star-Times, para. 3.

¹⁶⁷ Rowan & Hartnett (2019), with reference to Elder, V. (2013b, July 29). *Otago online stand queried*. Otago Daily Times, para. 6.

¹⁶⁸ Rowan & Hartnett (2019), with reference to Southland Times (2013, July 7). *Massey to offer open classes online*. Southland Times, para. 13.

¹⁶⁹ Rowan & Hartnett (2019), with reference to Elder, V. (2013b, July 29). *Otago ONLINE STAND QUERIED*. OTAGO DAILY TIMES, PARA. 9.

¹⁷⁰ Rowan & Hartnett (2019), with reference to Southland Times (2013, July 7). *Massey to offer open classes online*. Southland Times. Southland Times, para. 3.

¹⁷¹ Rowan & Hartnett (2019), with reference to Elder, V. (2013a, July 7). *Online courses no threat to Uni: Hayne*. Otago Daily Times, para. 14.

¹⁷² Rowan & Hartnett (2019), with reference to Torr, A. (2014, March 19). *Revolution connects ‘classrooms’ across world: Comment*. Daily Post, para.10.

¹⁷³ Rowan & Hartnett (2019), with reference to Slabbert, B. (2015, February 04). *Getting a taste of Uni from your living room*. Dominion Post, para. 22

¹⁷⁴ Rowan & Hartnett (2019), with reference to Russell, A. L. (2016, August 22). *Five myths about the web*. Stuff, Myth No. 4, para. 3

overtly portrayed the reality of the adoption of MOOCs, seeing them less as an inevitable event and more as an experiment and representing them as assimilated into existing higher education structures rather than supplanting them.

4 The Research Questions and Methodology of this Paper

4.1 The Research Questions

To understand the public's awareness of MOOCs, Google Trends and Baidu Index are applied to investigate the popularity of the term. According to Google Trends, the American public's attention on MOOC has been shrinking gradually after experiencing rapid growth in the initial stage. 2013-2014 seems to be the glorious period of MOOC in the United States, and the highlight moment occurred in September 2013 (See Figure 10).



Figure 10 Search Interest in MOOC & Massive Open Online Course (January 2011 – June 2020).
Source: Google Trends

Since Google products are not available in Mainland China, and Baidu as a search engine more in line with Chinese people's usage habits is more prevalent in China, Baidu Index is applied instead of Google Trends for the analysis of MOOC's popularity in China. Baidu Index is a data analysis platform based on Baidu's massive netizen behaviour data. Its search index takes keywords as statistical objects, scientifically analyses and calculates the weighted sum of the search frequency of each keyword in Baidu web search. To get more accurate search trends, the English abbreviation MOOC and its Chinese expression “慕课” are chosen as keywords for the analysis. As can be seen in the graph, the MOOC's search trend in China is quite different from the American one, with a later starting point and smoother ascent. Almost till the end of 2013, MOOC was a little-known thing with few search volumes in China. At the end of May and early June 2014, MOOC ushered in the first search climax, with search indexes of 4732 and 7810 for MOOC and “慕课”

respectively. After that, in a considerable period of time, the search indexes of both has been steadily growing but always below 5000. For most of the time since October 2019, both terms have attracted high attention, continued to exceed 5000 and experienced a blowout from late January 2020 to March 2020. After then, the search heat remained high, but it has clearly shown an avalanche decline.

Although the search interest in MOOCs varies in different regions and different periods, MOOC has been gaining popularity since 2012. During the emergence and development of MOOC, the media has played an essential role as a disseminator to make the public and venture investors other than educational researchers and reformers get to know about MOOC.

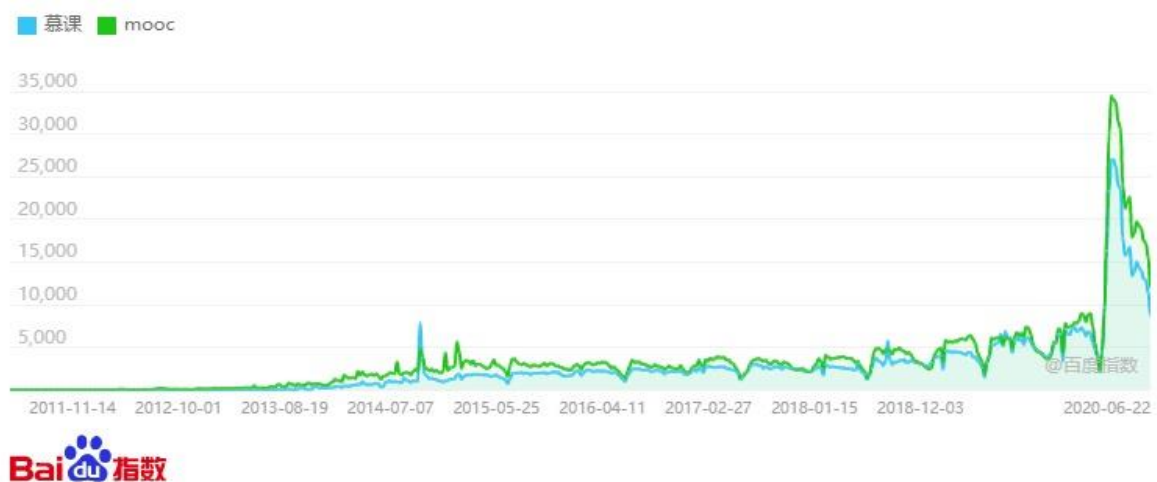


Figure 11 Interest in MOOC / 慕课 (January 2011 – June 2020)

Source: Baidu Index

News is actually a form of cognition. Facts are “sources” of news, and the related overall, connected, and changing aspects are sources of “facts” as well. The famous sentence from an ancient Chinese poem “It’s a range viewed in face and peaks viewed from the side, assuming different shapes viewed from far and wide”¹⁷⁵ vividly describes that in the process of cognition, the fact produced by one-sided cognition needs a coordinate of overall cognition to avoid partial truth. Due to the laws of cognition and news itself, news production has a problem of news angles as well. Similar to cognition, news production starts from a specific point, and another particular point is needed for entering and unfolding news when reproducing the facts. The authenticity requirement of news is to reproduce the facts as much as possible, but another news requirement is to show the most newsworthy part or even a point instead of covering everything. News

¹⁷⁵ Xu, Y. (2015). *Version of Classical Chinese Poetry: Poems of Su Shi*. Dolphin Books, p.5.

values are “criteria that influence the selection and presentation of events as published news”,¹⁷⁶ and are the sum of the qualities of news facts to meet social needs including invariable elements such as authenticity and timeliness and variables elements like significance and interest. In further terms, the decision of turning an objectively existing or happening fact into news and then disseminating it should be based on two points: 1) to what extent and how it is related to the public’s interests, and 2) whether it can satisfy people’s sensory needs.

For news producers, MOOC, as a new development of distance learning in the 21st century, is undoubtedly of great news value, and immediately became the focus of the media once the professor at Stanford university achieved unexpected success. While the emergence and development of MOOCs bring new focuses and report contents for the media, the news generated by the media also affects people’s perception and attitudes towards MOOC, thus influencing the development of MOOC. Originally initiated in the United States, there were high hopes that it would change the existing higher education system when sweeping the world like a “tsunami” stirred up by the world’s leading universities and capital investors. For quite some time, MOOC was frequently reported by various newspapers, with some marvellous stories and its endless possibilities. Sensational coverage can add to the perception of a specific event or topic and develop a life of its own by creating high news waves. Thus media hype is formed.

Media Hype is “extravagant or intensive publicity created by or by means of the mass media, especially out of proportion to the person or thing being publicised”.¹⁷⁷ Thanks to Peter Vastermann, who worked out the critical criteria of media hype in his well-respected academic article *Media-Hype: Self-Reinforcing News Waves, Journalistic Standards and the Construction of Social Problems*, we now have clear rules to identify if a news event is media hype. In this article, Peter Vastermann did not only define the criteria that characterise media hype but also described the typical news wave of media hype: “which rises steeply and fades away slowly and not linked to the frequency of any actual events as reported”.¹⁷⁸

Because of the distinct national/regional boundaries for the production and acquisition of news, people are more concerned about national and local news than

¹⁷⁶ Boyd, A. (1994) *Broadcast Journalism, Techniques of Radio and TV News*. Oxford: Focal.

¹⁷⁷ Refer to Oxford English Dictionary.

¹⁷⁸ Vastermann, P. L. M. (2005). Media-Hype: Self-Reinforcing News Waves, Journalistic Standards and the Construction of Social Problems. *European Journal of Communication*, 20 (4), p.515.

international news. In this work, we will use precisely these criteria to analyse the content of the reports on the North American newspaper – *The New York Times* and on its Chinese counterpart *Guangming Daily*. Like the previous research, this research tries to figure out how MOOCs are portrayed in the news media selected, but expands the previous research with further questions on if the coverage satisfies the criteria of media hype identified by Vastermann. Differing from the previous studies which concentrated solely on reports in the Western countries, this paper takes a look at an Asian country as well. Furthermore, the study covers a period of ten years (2011 - 2020).

Based on research on the news reports on MOOC in the United States and the People’s Republic of China, this paper hereby tries to answer the question of whether MOOC is a “bubble” or “media hype” in the information age by testing how MOOC was introduced by the media and how the media has influenced the developments of MOOC in the United States, where the movement is initiated, and in China, where people follow the new initiative. However, this study is somewhat limited as it is based on a total of only about 500 newspaper articles from the American newspaper, the New York Times and its Chinese counterpart, *Guangming Daily*.

4.2 Methods

4.2.1 Qualitative Content Analysis according to Philip Mayring

A common feature of three previous studies is the use of qualitative content analysis. Since Harold D. Lasswell elucidated the qualitative content analysis in the early 20th century, many scholars have defined it, with Berelson and Weber's definition being the most representative and highly cited. Berelson (1952) views it as “a research technique for the objective, systematic and quantitative description of the manifest content of communication”.¹⁷⁹ And Weber believes that content analysis is a qualitative research technique that uses a set of procedures to classify information so that effective inferences can be drawn.¹⁸⁰ The former emphasizes the objective, systematic and quantitative nature of content analysis, while the latter emphasizes the procedural, qualitative character and reasoning basis of content analysis. The two definitions reflect different views of content analysis methods.

The qualitative content analysis method used in this paper was developed by Philipp Mayring based on Berelson's definition – a systematic analysis of the data collected by the researcher. With this content analysis method, a corpus of texts delimited by the researcher is examined to determine the quantitative aspects with which it contains specific themes characterized by certain terms. Such a text corpus consists of communications in fixed written form, whether it is addressed to the public (e.g. via radio, television, newspapers or the Internet) or to a single person (e.g. a letter, an e-mail or a statement in an interview).¹⁸¹

As a well-known example given by Mayring in the research shows, American magazine stories can also be suitable objects for a content analysis: the object of Bernard Berelson's research was to find out how often the leading characters in magazine stories have a certain descent and how these figures relate to the actual distribution of minorities and majorities in the American population.¹⁸²

¹⁷⁹ Berelson, B. (1952). *Content analysis in communication research*. New York: Free Press, p. 18.

¹⁸⁰ Weber, R. P. (1985). *Basic Content Analysis*. Beverly Hills, CA: Sage.

¹⁸¹ Mayring, P. (2014). *Qualitative content analysis: theoretical foundation, basic procedures and software solution*. Austria: Klagenfurt, p.19.

¹⁸² Mayring (2014), p.22, with reference to Berelson, B. (1952). *Content analysis in communication research*. New York: Free Press.

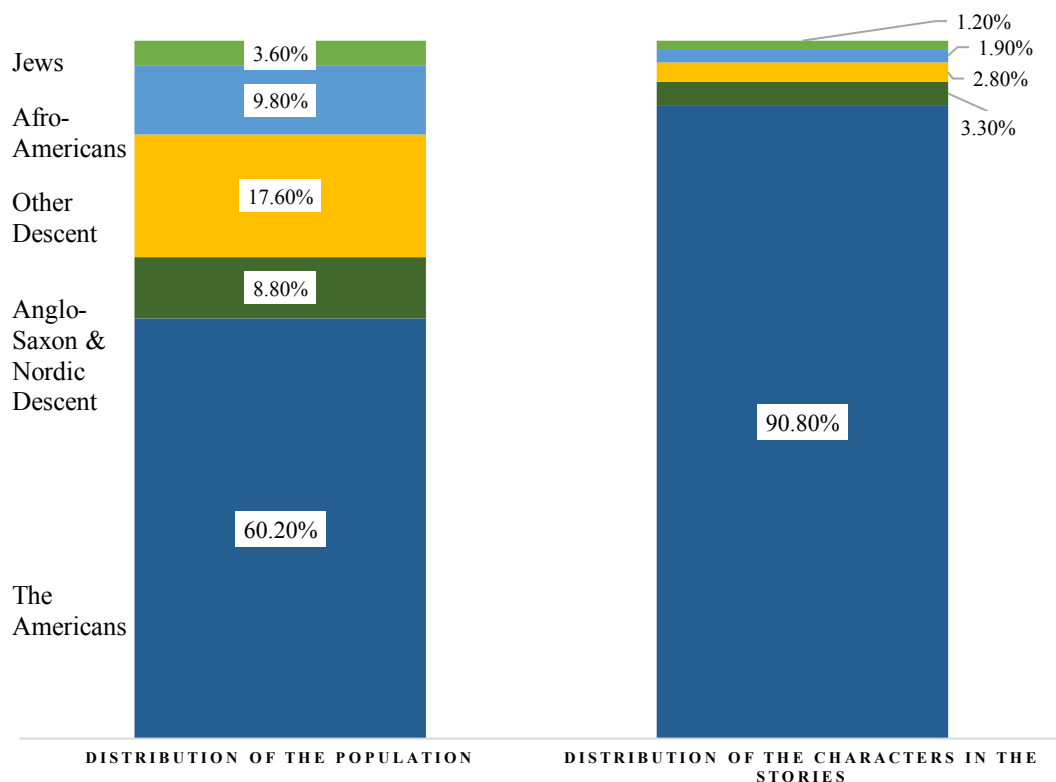


Figure 12 Content Analysis “American Major and Minorities” from Berelson 1953, p51.

It certainly goes without saying that the researcher's definition of a text corpus is of decisive significance for the comparability of the results of different frequency analyses.

According to Mayring, the analytical steps of qualitative content analysis are “inductive” and “deductive”. And there are several specific steps:¹⁸³

1. Classify the content of the text based on the selection criteria of the entries, and then extract the meaningful sentences as semantic units;
2. Carefully read and analyse the semantic units, distinguish and summarize them to form entries;
3. Analyse the similarities and differences of the entries formed, and condense them into several main entries;
4. Summarize the final entries with constant reliability check of entry formation to interpret the research findings;
5. Theory-based, further differentiation of research questions: Mayring considers this step to be very important. In reanalysis, the research question needs to be clearly

¹⁸³ Mayring, P. (2014). *Qualitative content analysis: theoretical foundation, basic procedures and software solution*. Austria: Klagenfurt.

defined and theoretically linked to previous research on the topic, after which the research question, as a rule, needs to be subdivided into sub-questions.

6. Define the unit of analysis
7. Start the actual analysis, generate interpretative results relevant to the research question and answer the question of research validity.

Using Mayring's qualitative content analysis method as the main tool, the author summarised and deduced the New York Times and Guangming Daily articles respectively, condensing the initial 83 terms into 36 main terms and identifying seven main themes for the analysis of MOOC coverage based on similar studies. These themes and terms will be elaborated in Chapter 5.

4.2.2 Data Acquisition and Analysis Strategy

Bulfin, Pangrazio and Selwyn refer to the New York Times as the American “newspaper of record”. The term also applies from the MOOC perspective. No other American newspaper has reported on MOOCs more frequently than the New York Times. To analyse MOOC coverage by the U.S. newspaper of records, the following corpus of text was selected: Using the LexisNexis©¹⁸⁴ publication database, articles were searched for the publication “New York Times” in the period from 1st January 2011 to 30th June 2020 in which the terms “massive open online course” or “MOOC” were referred to. Of the 189 hits, all blogs were removed. What remained were 142 editorial articles from the NYT, which serve as the text corpus for the analysis of MOOC coverage in the USA. A list of all 142 articles with headlines, authors and dates of publication can be found at the end of this chapter. All articles are numbered consecutively (NYT 1, NYT 2, etc.); this is also the information found in the following footnotes when an article is referred to or quoted from in the text.

In the People's Republic of China, Guangming Daily (hereinafter GD) is a newspaper of the same age as the Republic, which has witnessed the development of the country with a focus on the cultural area. As a mainstream media, GD’s coverage is a beacon in a sense and is often reprinted by other peers. Therefore, the national popularity and importance of GD in

¹⁸⁴ LexisNexis© is a commercial host specialising in providing information and technology solutions with full text of international periodicals, press and business information. For more details, see www.lexisnexis.com/en-us/gateway.page

China is closest to that of the NYT in the United States. During the period from 1st January 2011 to 30th June 2020, GD published a total of 322 articles on the subject of MOOC, which serve as the text corpus for the analysis of MOOC coverage in China. Since GD is a Chinese-language newspaper, all cited contents in this paper (headlines and text) are translated by the author.

5 MOOC: A Real New Development Trend or Media Hype?

5.1 MOOC Coverage in the USA

5.1.1 The State of Education in the USA before MOOCs

If you visit the current website of the US Department of Education and search for basic information about the education system in the USA, you will be directed to a 41-page document entitled “Education in the United States”¹⁸⁵. It is noteworthy that this very informative paper dates back to 2003. This is certainly sub-optimal for latest research, but it is ideal for the present work examining the US education system before “MOOCs” broke into the education landscape.

The US Education Report begins with a basic reference to the United States Constitution, which dates back to 1787. Regarding the legislative power, Article 1 section 1 of the Constitution states:

“All legislative Powers herein granted shall be vested in a Congress of the United States, which shall consist of a Senate and House of Representatives.”¹⁸⁶

And the Amendment X says:

“The powers not delegated to the United States by the Constitution, nor prohibited by it to the States, are reserved to the States respectively, or to the people.”¹⁸⁷

Terms such as “education”, “higher education”, “school” or “university” are not found in a single article of the Constitution and its Amendments. As a consequence, the USA has neither a national system of schools and universities nor national framework laws prescribing curricula or managing most other aspects of education.¹⁸⁸ The power to create and maintain public institutions of education or to authorise private institutions of education belongs to the “States” and the “people”.

The regulatory power of the states in the field of education means, for example, that the age of compulsory schooling can vary from state to state. In 30 states, compulsory education ends at age 16, in nine states at age 17 and 18 in 11 states and the District of Columbia.¹⁸⁹ Also, each state conducts its own teacher certification exam. Teachers

¹⁸⁵ U.S. Department of Education (2005). Education in the United States.

¹⁸⁶ National Constitution Center. The Constitution of the United States, p.1.

¹⁸⁷ National Constitution Center. The Constitution of the United States, p.12.

¹⁸⁸ U.S. Department of Education (2005). p. 6.

¹⁸⁹ U.S. Department of Education (2005). p. 13.

certified in one state are not eligible to teach in another state unless there is a specific reciprocity agreement between the states. Since reciprocity is rare, teachers who transfer to another state usually have to take additional courses and pass another exam.¹⁹⁰

The constitutional distribution of powers to regulate educational matters not only to the “States”, but also to the “people” has led to the existence of a large number of “school districts” in all States. The total number of school districts in the USA is 15,000.¹⁹¹ The school districts are directed by so-called “Boards of Education”, which are elected by the local population. Although each state's school district has certain guidelines from its State Department of Education, it is ultimately the Board of Education that is responsible for determining the budget, allocating money to individual schools and programmes, hiring teachers and other staff, implementing the curriculum, constructing and maintaining school buildings and purchasing equipment and supplies.¹⁹²

To fulfil their compulsory schooling, students in the USA basically have three options:

1. attending at a public school, which is generally free of charge
2. attending a private school, which is linked to the payment of a tuition fee, and
3. the so-called “homeschooling”.¹⁹³

The vast majority of the population attends public schools.¹⁹⁴ Public schools are financed primarily by public funds. These are mainly taxes levied in the school district as well as in the state as “school tax”. Public schools receive additional subsidies from federal tax revenues. Many schools raise third-party funds through private initiatives (fundraising). Finally, public schools regularly levy a school tax on students who reside outside the school district in which the school they attend is located. In such a case, it generally does not help the student even if the residence and school are in the same state.¹⁹⁵

Private schools are financed primarily from non-public sources: Tuition payments and other private sources such as foundations, religious bodies, alumni or other private donors. The average annual tuition cost at private schools in 2005 was US\$ 4,689, although tuition for individual schools may be less or significantly more than this

¹⁹⁰ U.S. Department of Education (2005). p. 22.

¹⁹¹ U.S. Department of Education (2005). p. 31.

¹⁹² U.S. Department of Education (2005). p. 31.

¹⁹³ U.S. Department of Education (2005). p. 18.

¹⁹⁴ U.S. Department of Education (2005). p. 18.

¹⁹⁵ U.S. Department of Education (2005). p. 18.

average.¹⁹⁶

In addition to attending a public or private school, a small but growing number of students aged 5 to 17 receive their education through homeschooling. Parents cite several main reasons for choosing to homeschool for their children. These include concerns about the environment of other schools (including safety, drugs and negative peer pressure), religious and moral beliefs, and dissatisfaction with academic instruction at other schools. Since homeschooling is a permissible form of schooling in the US, when applying for college, for example, the submission of a high school diploma can usually be replaced by a statement that homeschooling was received in accordance with legal requirements.¹⁹⁷

Due to the decentralisation of education in the USA, initiatives to improve teaching and learning methods often come from individual schools and their leaders. For the area of online education, which is of particular importance for this thesis, reference will be made to the example of Clintondale High School in Michigan and its headmaster, as reported in the NYT.¹⁹⁸

After twelve years of operation, the headmaster Greg Green was faced with the problem of continuous decline in the performance of his students. Green recalled at the time a personal experience he had with his 11-year-old son's baseball team. Green had recorded baseball techniques videos and posted them on YouTube for the team. Recording the content allowed the children to watch the videos repeatedly to capture the ideas. This gave the children more time for hands-on work at practice. This prompted Green to conduct the following experiment:

Clintondale High School was ranked in the bottom five percent in Michigan. That year, more than half of the ninth graders had failed science, and nearly half had failed maths. There is nothing for them to lose. Green drove to meet with TechSmith, a company that makes the screen-recording software he uses for his baseball videos, and wanted to do a whole school. No one had ever done a whole school before, the company said.

“He had a social studies teacher, Andy Scheel, run two classes with identical material and assignments, but one was flipped. In the flipped class, there were many students who had already failed the class - some multiple times. After 20 weeks, Scheel's flipped students were doing better than students in the traditional classroom, despite their disadvantages. No student in the flipped class received a grade lower than a C+. The

¹⁹⁶ U.S. Department of Education (2005). p. 19

¹⁹⁷ U.S. Department of Education (2005). p. 19.

¹⁹⁸ Rosenberg, T. (2013, October 13). *When Schools Do Flips*, New York Times.

previous semester, 13 per cent had failed. This semester, none did. In the traditional classroom, there was no change in performance.

Creating videos with the software donated by TechSmith, Clintondale's ninth-grade teachers flipped their classes. The results were dramatic: the failure rate in English dropped from 52 per cent to 19 per cent, in maths from 44 per cent to 13 per cent, in science from 41 per cent to 19 per cent and in social studies from 28 per cent to 9 per cent.”¹⁹⁹

Because of this success and thanks to the idea and personal commitment of Greg Green the Clintondale High School was completely flipped in 2010 and has proven to be a trend-setter for numerous schools in the USA.²⁰⁰

Schools in the USA are, as already mentioned, in the majority public. For colleges and universities, it is the other way around. The US Education Report²⁰¹ shows the following figures:

Table 2 Number of Public & Private Schools, Community Colleges and Colleges & Universities in the USA

Institution Type	Public	Private	Total
Schools	96,000	29,000	115,000
Community Colleges	1,100	700	1,800
Colleges & Universities	600	1,700	2,300

Community colleges can award a so-called “associate degree”.²⁰²

The colleges and universities can award undergraduate degrees such as the bachelor's degree and graduate degrees such as the master's degree and the doctorate (PhD. or its equivalent). The titles of these degrees in the U.S. are not regulated by national laws; therefore, colleges and universities have wide discretion not only in the nomenclature they use for degrees and programme requirements for graduation but also in the minimum length of study.²⁰³

All private and most public institutions at the postsecondary level are chartered or licensed as corporations under U.S. law and are legally independent and self-governing in terms of academic affairs, administration, fund-raising, resource allocation and public

¹⁹⁹ Rosenberg, T. (2013), *ibidem*.

²⁰⁰ It was already reported in 2015 that Green’s success had caught the attention of schools all over the USA, with 48% of teachers flipping a classroom by 2012, and 78% by 2014. For more details, see Berman, R. (2015, April 11). *His students were struggling, so he ‘flipped’ his classroom*. Upworthy.

²⁰¹ U.S. Department of Education (2005). p. 19 and 24.

²⁰² U.S. Department of Education (2005). p. 24.

²⁰³ U.S. Department of Education (2005). p. 25.

relations.²⁰⁴

The institutions are generally governed by a special board – often called a “Board of Trustees” – that is the highest authority for the institutional policy. This board is responsible for hiring the institution’s chief executive officer (CEO or president).²⁰⁵

Degree-awarding institutions generally depend on the following sources of income:

- student tuition and fees,
- government funding,
- institutional investments and holdings,
- private gifts and grants
- auxiliary enterprises.²⁰⁶

Research orientated institutions also receive money from grants and contracts with the government and the private sector, and teaching institutions may earn money from providing instructional services to employers. Almost all institutions, public or private, charge tuition.²⁰⁷

In the case of tuition fees, decentralisation again takes on a special significance. Regardless of where they live, all students are free to apply for admission to any higher education institution anywhere in the country. However, tuition fees at public universities are usually higher for students who live out of state.²⁰⁸

This statement from the US Education Report can be substantiated with a comparison of tuition fees for state-students and out-of-state-students at the best-known state university in the USA, where the figures for the academic year 2005 were as follows:

Table 3 One-Academic-Year Tuition Fee for Different Student Groups in 2005 at the University California, Berkley²⁰⁹

Students Group	Tuition Fee
In-state-students	\$6,730
Out-of-state students	\$23,686

Regarding the level of tuition fees, the US Education Report also points out that the tuition fees of private universities are usually higher than the fees at state universities.

²⁰⁴ U.S. Department of Education (2005). p. 27.

²⁰⁵ U.S. Department of Education (2005). p. 27.

²⁰⁶ U.S. Department of Education (2005). p. 27.

²⁰⁷ U.S. Department of Education (2005). p. 27.

²⁰⁸ U.S. Department of Education (2005). p. 25.

²⁰⁹ Collegecalc (2021). *Cost to Attend University of California Berkeley*. Tuition History.

This is also confirmed by a look at the tuition fees charged at the leading private American universities in 2005:

Table 4 One-Academic-Year Tuition Fee in 2005 at Harvard & Stanford University

University	Tuition Fee
Harvard University ²¹⁰	\$27,448
Stanford University ²¹¹	\$28,563

The report of the Ministry of Education does not address the issue of tuition fees of both private and public colleges and universities steadily increasing from year to year, much higher than the living costs. Using the three top universities mentioned above as examples, tuition fees showed the following changes between 2006 and 2010.

Table 5 One-Academic-Year Tuition Fee in three top American Universities

University	2006	2007	2008	2009	2010
Berkley ²¹²	\$23,961	\$25,338	\$26,785	\$28,264	\$31,022
Harvard ²¹³	\$28,752	\$30,275	\$31,456	\$32,557	\$33,696
Stanford ²¹⁴	\$32,994	\$34,800	\$36,030	\$37,380	\$38,700

Considering the cost of learning, one might ask whether it is worthwhile to study at such high tuition fees, which represent only a fraction of the total cost of study. Using 2003 as an example, the calculation looks like this:

“In 2003, the typical full-time year-round worker in the United States with a four-year college degree earned \$49,900, 62 percent more than the \$30,800 earned by the typical full-time year-round worker with only a high school diploma. Those with master’s

²¹⁰ Office of Institutional Research of Harvard University (2021). *Harvard College Tuition, Fees, Room, and Board*. Harvard University Fact Book.

²¹¹ Delgado, R. (2005, February 9). *Trustees approve tuition hike for 2005-2006 academic year*. Stanford Report.

²¹² Collegecalc (2021). *Cost to Attend University of California Berkeley*. Tuition History.

²¹³ Office of Institutional Research of Harvard University (2021). *Harvard College Tuition, Fees, Room, and Board*. Harvard University Fact Book.

²¹⁴ Stanford University (2006, February 15). *Stanford Board of Trustees sets tuition for 2006-07*. Stanford New Service.

Stanford University (2007, February 14). *Stanford Board of Trustees sets tuition for 2007-09*. Stanford Report.

Stanford University (2008, February 20). *Stanford Board of Trustees sets tuition for 2008-07*. Stanford Report.

Sullivan, K. J. (2009, February 11). *Tuition raised, but financial aid remains top priority*. Stanford Report.

Stanford University (2010, February 9). *Stanford maintains aid, raises undergraduate tuition 3.5%*. Stanford Report.

degrees earned almost twice as much, and those with professional degrees earned over three times as much per year as high school graduates”.²¹⁵

Since a degree seems to pay for itself in professional life and university studies are regularly started with the expectation of being able to complete them successfully, the majority of American students take out a loan to finance their studies. But beginning a study financed does not mean successfully finishing a study. In 2010 the Fiscal Times reports:

“Millions of first-year college students and their families now paying for the most expensive postsecondary education in U.S. history face a land mine: just 56 percent of those who enrol in a four-year college earn a bachelor’s degree. Those new undergraduates are now reaching the end of the first semester, a critical crossroads between finishing and dropping out”.²¹⁶

In 2003, the average student loan debt in the USA was \$19,669.²¹⁷ This figure develops until 2010 as follows:

Table 6 Average Student Loan Debt in the USA 2006-2010

Year	Average Student Loan Debt
2006	\$20,790
2007	\$21,975
2008	\$23,228
2009	\$24,634
2010	\$26,125

Also of social significance is the outstanding student loans amount in 2003—\$241 billion.²¹⁸ By 2010, the amount had increased to \$833 billion.²¹⁹

Another point which should be mentioned is the fact that the USA has been home to some of the best universities in the world for decades. The TOP 100 universities listed in the “Academic Ranking of World Universities”, published first time in 2003²²⁰, shows

²¹⁵ CollegeBoard (2005). *Education Pay. Trends in Higher Education Series*, p.2.

²¹⁶ Lewis, K. R. (2010, October 28). *High College Dropout Rate Threatens U.S. Growth*.

²¹⁷ Regarding the figures for the period from 2003 to 2010, see Farrington, R. (2021, June 27). *Average Student Loan Debt by Year (Graduating Class)*. The College Investor, Student Loans.






























²¹⁸ See De Lea, B. (2017, July 21). *Student loan debt up more than 450% since 2003*. Fox Business, Personal Finance.

































²¹⁹ See Finaid (2021). *Student Loan Debt Clock*. Finaid.


































²²⁰ ShanghaiRanking Consultancy (2021a). *2003 Academic Ranking of World Universities*. Shanghai Ranking.


this fact in a very impressive way:

Table 7 2003 Academic Ranking of World Universities

World Rank	Institution	Nation /Region	Total Score
1	Harvard University		100
2	Stanford University		83.5
3	California Institute of Technology		76.3
4	University of California, Berkeley		74
5	University of Cambridge		73.4
6	Massachusetts Institute of Technology (MIT)		70.6
7	Princeton University		62.5
8	Yale University		61.1
9	University of Oxford		59.5
10	Columbia University		59.1
11	University of Chicago		57
12	Cornell University		56.9
13	University of California, San Francisco		55.3
14	University of California, San Diego		54.4
15	University of California, Los Angeles		53.8
16	University of Washington		50.3
17	The Imperial College of Science, Technology and Medicine		50.1
18	University of Pennsylvania		50
19	The University of Tokyo		49.4
20	University College London		48.9
21	University of Michigan - Ann Arbor		48.8
22	Washington University in St. Louis		47.8
23	University of Toronto		45.8
24	The Johns Hopkins University		45.7
25	Swiss Federal Institute of Technology Zurich		45.6
26	University of California, Santa Barbara		45.3
27	University of Wisconsin - Madison		45
28	Rockefeller University		44.8
29	Northwestern University		44.4

30	Kyoto University		43.6
31	University of Colorado at Boulder		40.9
32	Duke University		40.4
32	Vanderbilt University		40.4
34	The University of Texas Southwestern Medical Center at Dallas		39.5
35	University of British Columbia		38.2
36	University of California, Davis		38.1
37	University of Minnesota, Twin Cities		37.8
38	Rutgers, The State University of New Jersey		37.2
39	Karolinska Institute		36.8
40	Pennsylvania State University - University Park		36.5
40	University of Southern California		36.5
40	Utrecht University		36.5
43	The University of Edinburgh		36
44	University of California, Irvine		35.9
45	University of Illinois at Urbana-Champaign		35.2
45	University of Zurich		35.2
47	The University of Texas at Austin		35
48	University of Munich		34.1
49	Brown University		33.9
49	The Australian National University		33.9
51	Case Western Reserve University		33.2
52	University of North Carolina at Chapel Hill		33.1
53	Osaka University		33
53	University of Pittsburgh		33
55	New York University		32.7
55	University of Arizona		32.7
55	University of Bristol		32.7
58	University of Heidelberg		32.2
59	Uppsala University		32.1
60	Technical University Munich		31.3
61	Carnegie Mellon University		31.2

61	Rice University		31.2
63	University of Oslo		31.1
64	Tohoku University		30.5
65	Pierre and Marie Curie University - Paris 6		30.3
65	University of Copenhagen		30.3
67	University of Virginia		30
68	Nagoya University		29.7
68	The University of Sheffield		29.7
70	Texas A&M University - College Station		29.6
70	University of Roma - La Sapienza		29.6
72	University of Paris Sud (Paris 11)		29.5
72	University of Rochester		29.5
74	University of Helsinki		29.3
75	King's College London		29.2
75	University of Florida		29.2
75	University of Maryland, College Park		29.2
78	Leiden University		28.9
79	McGill University		28.4
80	Purdue University - West Lafayette		28.3
81	The Ohio State University - Columbus		28.1
81	University of Utah		28.1
83	Tufts University		27.9
84	University of Groningen		27.8
84	University of Vienna		27.8
86	McMaster University		27.7
87	Michigan State University		27.5
88	University of California, Riverside		27.3
89	The University of Manchester		27.1
90	University of Iowa		27
91	University of Goettingen		26.9
92	University of Melbourne		26.8
93	Lund University		26.5
94	The Hebrew University of Jerusalem		26.2

95	Free University of Berlin		26.1
96	University of Basel		26
96	University of Illinois at Chicago		26
98	Boston University		25.9
99	Emory University		25.7
99	Ghent University		25.7
99	North Carolina State University - Raleigh		25.7
Total Points			3925.4

In the 2003 Academic Ranking of World Universities, American universities alone accounted for 2,339.7 points (62%) of the 3,925.4 points that all the top 100 universities could achieve. No other country has more universities in the top 100 or top 500 universities in this ranking. This high performance could be sustained more or less over time as the comparative figures from the 2003²²¹ and 2010²²² rankings show.

Table 8 Number of US Universities in 2003 & 2010 Academic Ranking of World Universities

University Ranking	2003 Academic Ranking	2010 Academic Ranking ²²³
1 – 100	58	54
1 – 500	161	154

The situation in the U.S. before MOOCs were launched can be summarized: there is a large number of excellent private or public colleges and universities, but all institutions charge substantial tuition fees. These fees increase significantly every year. To be able to study, the majority of students go into debt through student loans. The question is, therefore, how to give students access to quality education at affordable costs. This is an open question that is also well-known to Sebastian Thrun, a German who has been a professor of computer science and electrical engineering at Stanford University since 2007.

²²¹ ShanghaiRanking Consultancy (2021a). *2003 Academic Ranking of World Universities*. Shanghai Ranking.

²²² ShanghaiRanking Consultancy (2021b), *2010 Academic Ranking of World Universities*. Shanghai Ranking.

²²³ The downward trend in US universities has continued. From 2010 to 2020, the number of US universities in the top 100 has decreased from 55 to 41, and the number of US universities in the top 500 has decreased from 155 to 140. For more details, see ShanghaiRanking Consultancy (2021c), *2020 Academic Ranking of World Universities 2020*. Shanghai Ranking.

5.1.2 The Starting Period of MOOCs

In the fall of 2008, the two professors Siemens and Downes jointly built the course *Connectivism and Connective Knowledge – CCK08* at the University of Manitoba, which uses Facebook Groups, Wiki Pages, Forums and other online channels to attract students to participate in the course. They got 25 fee-paying college students and approximately 2300 non-paying learners from the general public around the world.²²⁴

When Stanford professor Sebastian Thrun's famous online course – *Introduction to Artificial Intelligence* attracted 160,000 learners from 190 countries all over the world in the fall of 2011, MOOCs came into the public's view stunningly and received countless media attention first in the USA²²⁵. Since then, the MOOC craze sweeps the whole country:

On 19th December 2011, the MITx programme was announced to offer MIT courses online and to research digital learning tools.²²⁶

In January 2012, Sebastian Thrum announced a for-profit online education start-up Udacity at the 2012 Digital Life Design conference²²⁷ and started its first two courses on 20th February.²²⁸

On 13th February 2012, MITx opened its first MOOC 6.002x: Circuits and Electronics.²²⁹

On 18th April 2012, Stanford professors Andrew Ng and Daphne Koller launched a commercialised online learning platform named Coursera with the backing of Silicon Valley venture funds.²³⁰

In May 2012, MITx was spun off into the non-profit organisation edX, co-owned by MIT and Harvard.²³¹

On 1st June 2012, Udacity announced a partnership with electronic testing service provider Pearson VUE to make its classes “count towards a credential that is recognised

²²⁴ Harasim, L. (2017). *Learning Theory and online Technologies*. New York: Routledge, p94.

²²⁵ NYT 6.

²²⁶ MIT News (2011, December 19). *MIT launches online learning initiative – 'MITx' will offer courses online and make online learning tools freely available*. Massachusetts Institute of Technology.

²²⁷ Salmon, F. (2012, January 23). *Udacity and the future of online universities*. Reuters.

²²⁸ Graham, B. (2012, January 13). *Robotics Mastermind takes Education Online*. The Airspace.

²²⁹ MIT News (2012, February 13). *MITx prototype course opens for enrollment – Online-learning initiative's first offering, '6.002x: Circuits and Electronics', accepting registrants now*. Massachusetts Institute of Technology.

²³⁰ Friedman, T. L. (2012, May 15). *Come the Revolution*. The New York Times.

²³¹ NYT 5.

by employers”.²³²

On 10th June 2012, the Board of Visitors at the University of Virginia announced the sack of president Teresa Sullivan for her gradualist strategy towards MOOC.²³³

In July 2012, Google commenced enrolment for its first MOOC power searching and started the lessons on 10th July.²³⁴

In October 2012, Antioch University struck a deal with Coursera and became the first US institution to offer college credits for MOOC.²³⁵

In November 2012, Coursera began to work with the American Council on Education to initiate a credit-equivalency evaluation of a select few Coursera courses.²³⁶

In December, Coursera announced Coursera Career Services to match employers and students.²³⁷

In the following year, like a stone falling in calm waters, MOOC set off ripples of higher education all over the world, spanning Europe, Asia and Oceania like a “tsunami”, spawning the development of unique MOOCs and platforms in various countries.

In December 2012, a British digital educational platform called FutureLearn was launched with 12 top UK university partners to “fight back” for UK’s higher education by participating in the MOOC movement.²³⁸

In March, Open Universities Australia, a not-for-profit online higher education organisation based in Australia launched a learning platform Open2Study, which offers courses focusing on career exploration and life skills, in addition to those for intellectual development.²³⁹

In April 2013, in collaboration with the European Commission, the European Association of Distance Teaching Universities (EADTU) launched the first pan-European MOOC initiative – OpenupEd. The 11 launch partners are from eight EU countries and

²³² Udacity Team (2012, June 1). *Udacity in partnership with Pearson VUE announces testing centers*. Udacity.

²³³ Wood, C.S. (2012, June 10). *Full Text of Email Announcing Sullivan’s Stepping Down*. UVAToday.

²³⁴ Ednacot, T. (2012, June 26). *Become a Google Power Searcher*. Google AI Blog.

²³⁵ Antioch University (2012, October 29). *Antioch University Becomes First US Institution to Offer Credit for MOOC Learning Through Coursera*. Antioch University.

²³⁶ Coursera Blog (2012, November 13). *American Council on Education to Evaluate Credit Equivalency for Coursera’s Online Courses*. Coursera

²³⁷ Coursera Blog (2012, December 4). *Coursera and your career*. Coursera.

²³⁸ Parr, C. (2012, December 20). *FutureLearn picks league table stars for debut line-up*. Times Higher Education.

Shaw, C. (2012, December 20). *FutureLearn is UK’s chance to ‘fight back’, says OU vice-chancellor*. The Guardian.

²³⁹ Morrison, D. (2013, March 29). *Need-to-Know-News: One HUGE Step Forward for Competency Learning, NEW Open2Study, and More*. Online Learning Insights.

three non-EU countries: France, Italy, Lithuania, the Netherlands, Portugal, Slovakia, Spain, UK, Russia, Turkey, and Israel. Starting with 40 courses, the non-profit OpenupEd aims to contribute to open up education by offering high-quality MOOCs.²⁴⁰

In May 2013, Edukart, an Indian higher education enrolment platform, raised funding of \$500,000 from a consortium of early-stage institutional and angel investors, which include Kima Ventures, Amit Patni and Arihant Patni, AKM Systems (Shiven Malhotra), Vibhor Mehra (ex-partner of SAIF Partners) and alumni from Stanford University, to make waves in India's online education market.²⁴¹

At the beginning of October 2013, the French Ministry of Higher Education and Research (Ministère de l'Enseignement Supérieur et de la Recherche) launched France Université Numérique, a French national MOOC platform, with a budget of 8 million euros. This initiative aims to bring online projects of French universities and schools together to give them international visibility.²⁴²

In Mid October 2013, iversity, a Berlin-based online education platform went live and launched its first 6 MOOCs and curriculum of other 18 courses with more than 100 thousand registers.²⁴³

In November 2013, the Japan Massive Open Online Education Promotion Council (abbr. JMOOC) was established to “bring to a reality MOOC’s vision to expand individual values to the whole of society’s shared values through learning for Japan and Asia based on business-academia collaboration” (JMOOC). Six months later, with the support of JMOOC, NTT Knowledge Square Co., Ltd. started to offer courses on a new Japanese MOOC platform called gacco in April 2014 and changed its company name to NTT docomo gacco on 25th August 2015 to focus on the development of gacco.²⁴⁴

²⁴⁰ European Commission (2013). *Vassiliou welcomes launch of first pan-European university MOOCs (massive open online courses)*. Brussel/Heerlen, European Commission.

²⁴¹ Wauters, R. (2013, May 30). *EduKart raises \$500,000 to make waves in India's online education market*. The Next Web.

²⁴² Oui, M. (2014, January 14). *MOOC: 88.000 inscrits sur la plate-forme FUN et de nouveaux financements en vue*. Letudiant.

Rauline, N. (2014, February 18). *Education: la difficile équation économique des MOOC*. LesEchos.

²⁴³ iversity (2013, October 11). *The Countdown Is On: iversity Will Launch Its First Courses on 15 October 2013*. iversity.

Lomas, N. (2013, October 14). *Europe's iversity Launches 1st MOOCs with 100k+ Students & Curriculum of 24 Courses*. Techcunch.

²⁴⁴ ITmedia (2015, August 17). *ドコモ、オンライン教育「ドコモ gacco」設立 [DOCOMO establishes online education "DOCOMO gacco"]*. ITmedia.

5.1.3 New York Times' MOOC Coverage (2011-2020)

5.1.3.1 The MOOC News Wave

According to Vasterman, the first criterion for determining media hype is the existence of a news wave. The news wave is described as a wave that rises steeply and fades away slowly. If you show the number of the articles on a horizontal axis and the year in which the respective articles were published on a vertical axis, you can see the following news wave which rises steeply in 2011 and fades away from 2013. This corresponds to the news wave as described by Vastermann.

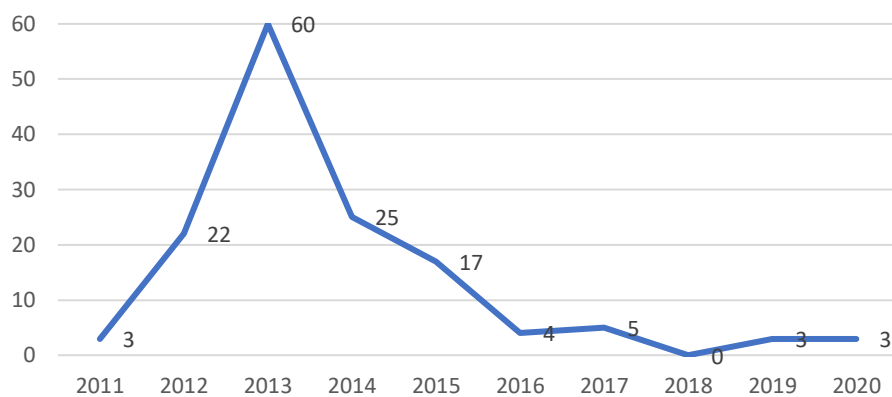


Figure 13 The New York Times Wave

5.1.3.2 The Key Event?

On August 16, 2011, the NYT first reported on a course on artificial intelligence, which was offered online with a huge level of participation, with the headline “Free Course in Artificial Intelligence Is Offered Online, and 58,000 Sign Up”²⁴⁵. The newspaper reported:

“A free online course at Stanford University on artificial intelligence, to be taught this fall by two leading experts from Silicon Valley, has attracted more than 58,000 students around the globe – a class nearly four times the size of Stanford's entire student body. ... For the artificial intelligence course, students may need some higher math, like linear algebra and probability theory, but there are no restrictions to online participation. So far, the age range is from high school to retirees, and the course has

²⁴⁵ NYT 1.

attracted interest from more than 175 countries.”²⁴⁶

Sebastian Thrun and Peter Norvig, the two instructors of the course were introduced as:

“two of the world's best-known artificial intelligence experts. In 2005 Dr. Thrun led a team of Stanford students and professors in building a robotic car that won a Pentagon-sponsored challenge by driving 132 miles over unpaved roads in a California desert. More recently he has led a secret Google project to develop autonomous vehicles that have driven more than 100,000 miles on California public road. Dr. Norvig is a former NASA scientist who is now Google's director of research and the author of a leading textbook on artificial intelligence.”²⁴⁷

The newspaper also reported that there has been some discussion at Stanford about whether making the courses freely available would prove to be a threat to the universities which charge high tuition fees. However, this is not the opinion of Stanford professor Thrun:

“Dr. Thrun dismissed that idea. ‘I’m much more interested in bringing Stanford to the world,’ he said. ‘I see the developing world having colossal educational needs.’”²⁴⁸

A little later, the NYT continued its reporting with an article titled “*The University of Wherever*”.²⁴⁹ For the first time, the online course was placed in the context of a business model:

“Digital utopians have envisioned a world of virtual campuses and ‘distributed’ learning. They imagine a business model in which online courses are consumer-rated like products on Amazon, tuition is set by auction services like eBay, and students are judged not by grades but by skills they have mastered, like levels of a videogame... Meanwhile, one of Stanford's most inventive professors, Sebastian Thrun, is making an alternative claim on the future... He is offering his ‘Introduction to Artificial

²⁴⁶ NYT 1.

²⁴⁷ NYT 1

²⁴⁸ NYT 1.

²⁴⁹ NYT 2.

Intelligence' course online and free of charge. His remote students will get the same lectures as students paying \$50,000 a year, the same assignments, the same exams and, if they pass, a 'statement of accomplishment' (though not Stanford credit).

...Thrun's ultimate mission is a virtual university in which the best professors broadcast their lectures to tens of thousands of students. 'Testing, peer interaction and grading would happen online; a cadre of teaching assistants would provide some human supervision; and the price would be within reach of almost anyone. 'Literally, we can probably get the same quality of education I teach in class for about 1 to 2 percent of the cost,' Thrun told me. The traditional university, in his view, serves a fortunate few, inefficiently, with a business model built on exclusivity. 'I'm not at all against the on-campus experience,' he said. 'I love it. It's great. It has a lot of things which cannot be replaced by anything online. But it's also insanely uneconomical.'"²⁵⁰

The NYT did not hide the fact that there were still unanswered questions:

"Thrun acknowledges that there are still serious quality-control problems to be licked. How do you keep an invisible student from cheating? How do you even know who is sitting right in front of the remote keyboard? Will this kind of education really be as compelling - and will it last? Thrun believes that there are technological answers to all of these questions, and some of which already have got solutions worked out by other online frontiersmen. 'If we can solve this,' he said, 'I think it will disrupt all of higher education.' Disrupt is right. It would be an earthquake for the majority of colleges that depend on tuition income rather than big endowments and research grants. Many could go the way of local newspapers. There would be huge audiences and paychecks for superstar teachers, but dimmer prospects for those who are less charismatic.'"²⁵¹

This raised the question – what does the university think about the initiative of its

²⁵⁰ NYT 2.

²⁵¹ NYT 2.

two professors Norwig and Thrun, how does the president of Stanford assess the experiment? On this, the New York Times cited the opinion of John Hennessy, the president of Stanford who viewed Thrun's experiment as "an initial demonstration", and was "cautious about the grander dream of a digitized university"²⁵²:

"He can imagine a virtual campus for some specialized programs and continuing education, and thinks the power of distributed learning can be incorporated in undergraduate education – for example, supplanting the large lecture that is often filled with students paying more attention to their laptops. He endorses online teaching as a way to educate students, in the developing world or our own, who cannot hope for the full campus experience... In the same way that a lot of things go into the cost of a newspaper that have nothing to do with the quality of the reporting – the cost of newsprint and delivery – we should ask the same thing about universities... When is the infrastructure of the university particularly valuable – as it is, I believe, for an undergraduate residential experience – and when is it secondary to the learning process?... One has to think about the sustainability of all these things. In the end, the content providers have to get paid."²⁵³

A final point presented by the NYT is the issue of the performance and sustainability of digital teaching:

"As The Times's Matt Richtel recently reported, there is remarkably little data showing that technology-centric schooling improves basic learning. It is quite possible that the infatuation with technology has diverted money from things known to work – training better teachers, giving kids more time in school."²⁵⁴

Against the background of a news wave, which was shown in the last section and is typical of media hype, the passages reproduced above from the first two articles of the NYT about "Thrun's experiment" shall now be analysed according to the further criteria of Vastermann as well.

²⁵² NYT 2.

²⁵³ NYT 2.

²⁵⁴ NYT 2.

As we know, in addition to the news wave, the next two criteria for identifying media hype are: firstly, the existence of a key event and; secondly, the phenomenon that the topics generated by this key event subsequently become the subject of later media coverage over and over again.

Regarding the first point we can say:

It is “Thrun's experiment” that fulfils all the characteristics of a “key event”. It is not unusual for special events to be associated with special people. In the entire MOOCs coverage by the NYT from 2011 to 2020, the name “Thrun” was mentioned 84 times. The German is quoted 25 times in his own words. The first article from August 16, 2011, refers to Sebastian Thrun and the last article from May 26th, 2020, did the same. It was 'Thrun's ultimate mission' that sparked NYT's interest in the MOOC and -as we shall see later - it was also Thrun's own critical comments that led to NYT's growing disinterest in the topic.

Regarding the second point we can conclude:

In order to be able to answer Vastermann's third criterion in the affirmative, the topics that are repeatedly dealt with in later reporting must have already been triggered by the key event. As we already know from previous research, there are seven topics that dominate MOOC coverage:

- MOOCs as change agents
- MOOC providers and elite universities
- MOOCs and openness
- MOOCs and commodification of higher education
- Pedagogical approaches of MOOCs
- MOOCs as experimental and
- Influence of MOOCs.²⁵⁵

On this basis, we can ask how close the relationship between Thrun's experiment and these themes is from the beginning.

Matching these themes with the NYT's original coverage shows consistency everywhere possible:

- **Change**

It will change higher education (*“it will disrupt all of higher education”*, *“earthquake for the majority of colleges”*) and the world (*“Change the world by bringing*

²⁵⁵ Rowan & Hartnett (2019), p. 26.

education to places that can't be reached today”, “Bringing Stanford to the world”).

- **Elite University**

It comes from Stanford (*“two of the world’s best-known artificial intelligence experts”; “Stanford”*),

- **Openness**

It’s for everyone and anywhere (*“there are no restrictions to online participation”, “58,000 Students”, “enrolment leapt to 130,000”; “the course has attracted interest from more than 175 countries”, “from across the globe”*) and it is free. (*“free of charge”, “same lectures as students paying \$50,000 a year”*).

- **Commodification**

It is high time that education gets a functioning business model. (*“Traditional university”, business model built on exclusivity”, “insanely uneconomical”; “virtual university”, “for 1 to 2 percent of the cost”*)

- **Pedagogy**

It uses technological tools without loss of quality (*“Online”, Testing, peer interaction and grading”, “the same quality of education”*)

- **Experimental**

It’s an experiment. (*“New wave of experimentation in education”, “Thrun’s experiment”, “little data showing that technology-centric schooling improves basic learning”, “Will the education really be as compelling - and will it last?”*)

Next in this section, we will discuss in detail the extent and manner of the New York Times' reports around the seven 'well-known' MOOC topics.

5.1.3.3 The Media Making News?

The research in this chapter follows the example of Hartnett and Rowan, who used MOOC reporting in other countries as a benchmark for their own content analysis. This research also asks what role those topics, which have been identified as particularly important by previous research in Western countries, play in the NYT's MOOC coverage. It is thus examined whether these themes, which are consistently linked to the key event are regularly found in numerous messages, reports, features, opinions and assessments about the future. The following subsections address the scope and tone with which these themes are presented in the NYT.

5.1.3.3.1 Change

According to previous research, this theme mainly incorporates the idea that MOOCs are a disruptive innovation set to revolutionize existing higher education systems.

Table 9 Frequency of the Theme Change

Term	Frequency	Number of Articles
change	119	64
disrupt	50	17
replace	24	21
revolution	43	22
Sum	236	80

As could be seen above, Sebastian Thrun's expectation that MOOCs “will disrupt all higher education” was commented with “Disruption is right” in NYT. Does “right” here mean “accurate expectation” or “good thing” or even both? It's hard to tell.

What is clear is that the terms “disruption” and “disruptive” run throughout the NYT MOOC articles, suggesting that it is time for fundamental change, if not a replacement of the traditional education system. A most vivid argument NYT cited is a historical case of steamship given by the Harvard professor Clayton M. Christensen: When the first commercial steamship crossed the Hudson River in 1807, few people realized that it would replace transoceanic sailing ships in a dozen years. Not fully realizing the innovative advancement and tremendous potential of the steamship, sailing ship companies paid a huge price and went out of business since customers turned to steamships.²⁵⁶

Clayton M. Christensen likened traditional universities to the traditional transoceanic sailing ships:

“Traditional colleges are currently on their hybrid voyage across the ocean. Like steam, online education is a disruptive innovation - one that introduces more convenient and affordable products or services that over time transform sectors. Yet many bricks-and-mortar colleges are making the same mistake as the once-dominant tall ships: they offer online courses but are not changing the existing model. They are not saving students time and money, the essential steps to disruption. And though their approach

²⁵⁶ NYT 80

makes sense in the short term, it leaves them vulnerable as students gravitate toward less expensive colleges”.²⁵⁷

He noted that for-profit colleges seized the opportunity of online education as early as in the 1990s and used it to make incumbents who were inconvenient for traditional higher education their target customers. He believes that the reason why for-profit colleges have not reversed the traditional higher education landscape as much as they theoretically should be that federal financial aid has caused some schools to flood the industry for easy profits at the expense of quality. These schools are there just to make up the number and hinder cost reduction.²⁵⁸ Christensen took his review of history to demonstrate the inevitability of traditional higher education being replaced by MOOCs:

“Still, the theory predicts that, be it steam or online education, existing consumers will ultimately adopt the disruption, and a host of struggling colleges and universities – the bottom 25 percent of every tier, we predict - will disappear or merge in the next 10 to 15 years. Already traditional universities are showing the strains of a broken business model, reflecting demand and pricing pressures previously unheard-of in higher education.”²⁵⁹

Christensen’s prognosis that the replacement of traditional higher education by MOOCs is inevitable was stated in many other NYT articles. NYT contributors were fond of using terms usually associated with force majeure, natural or man-made, when referring to MOOCs. Whether “Earthquake”,²⁶⁰ “tsunami”²⁶¹ or “revolution”, the common feature of these words is to indicate the inevitability and irresistibility of the event. These words were sometimes written directly in the title, for instance, “Revolution Hits the Universities”,²⁶² but more often in the texts (30 times). Phrases like “starting the revolution that has higher education gasping”,²⁶³ “revolutionize the teaching”,²⁶⁴ “revolutionary potential”²⁶⁵ and “MOOC Revolution”²⁶⁶ can be found throughout the

²⁵⁷ NYT 80.

²⁵⁸ NYT 80

²⁵⁹ NYT 80

²⁶⁰ NYT 2.

²⁶¹ NYT 8, 44.

²⁶² NYT 30.

²⁶³ NYT 18.

²⁶⁴ NYT 26.

²⁶⁵ NYT 26.

²⁶⁶ NYT 44.

NYT MOOC coverage.

In addition to the anticipation of changing the higher education system, there is another expectation that has existed from the beginning, namely that MOOCs would make the world a better place. Again, it is Sebastian Thrun, the person whose name has been called 84 times in the whole coverage, who set the direction that MOOC might change the world. Right from the beginning, Thrun saw the potential for MOOCs to change the education landscape far beyond the boundaries of the US education system: “I’m much more interested in bringing Stanford to the world”,²⁶⁷ “I see the developing world having colossal educational needs”.²⁶⁸

Agreeing with this opinion, NYT wonder in its later articles: “Who could be against an experiment that promises the treasure of education to a vast, underserved world?”²⁶⁹ And you can also read such advertising-tinged text:

“Welcome to the brave new world of Massive Open Online Courses – known as MOOCs – a tool for democratizing higher education. While the vast potential of free online courses has excited theoretical interest for decades, in the past few months hundreds of thousands of motivated students around the world who lack access to elite universities have been embracing them as a path toward sophisticated skills and high-paying jobs, without paying tuition or collecting a college degree.”²⁷⁰

Sebastian Thrun may be the first one to see the potential of MOOC to impact and even change the world, but apparently not the only one as other prominent MOOC players share the same view. In a later report, Georg Siemens said that “Projects like this can impact lives around the world, for the next billion students from China and India” when he was interviewed.²⁷¹ And Anant Agarwal, the president of the Harvard-MIT-MOOC-venture edX summed up their goal as: “Our goal is to change the world through education”.²⁷²

In *Revolution Hits the Universities*, the NYT columnist Thomas L. Friedman opened his article by calling MOOC a budding revolution in higher education that give

²⁶⁷ NYT 1.

²⁶⁸ NYT 1.

²⁶⁹ NYT 2.

²⁷⁰ NYT 5.

²⁷¹ NYT 6.

²⁷² NYT 10.

him hope for the future. For him, it is clear that there are few things that are better for the world than MOOC, which offers a possibility to make the best educational content available to the global public for a fraction of the cost of a regular university course:

“LORD knows there's a lot of bad news in the world today to get you down, but there is one big thing happening that leaves me incredibly hopeful about the future, and that is the budding revolution in global online higher education. Nothing has more potential to lift more people out of poverty – by providing them an affordable education to get a job or improve in the job they have. Nothing has more potential to unlock a billion more brains to solve the world's biggest problems. And nothing has more potential to enable us to reimagine higher education than the massive open online course, or MOOC, platforms that are being developed by the likes of Stanford and the Massachusetts Institute of Technology and companies like Coursera and Udacity.”²⁷³

To support his opinion, he cited many MOOC stories from the industry pioneers such as Anant Agarwal – the former director of MIT’s artificial intelligence lab and the president of edX, Daphne Koller – a Stanford computer scientists and the co-founder of Coursera and L. Rafael Reif – the MIT president.

The MOOC experience of a 17-year-old boy with autism shared by Daphne Koller, who expected that MOOC would make our world a better place, vividly illustrated how MOOC could help those who are unable to participate in normal on-campus education. Daniel is a boy who communicates mainly through the computer. He enrolled in an online modern poetry course from the University of Pennsylvania and found that the way the course combines the rigorous academic curriculum and online learning system is a much more helpful way for him to manage his autism and allows him to be free from social communication disturbance and stay on task. He wrote in a letter:

“Please tell Coursera and Penn my story. I am a 17-year-old boy emerging from autism. I can't yet sit still in a classroom so [your course] was my first real course ever. During the course, I had to keep pace with the class, which is unheard-of in special

²⁷³ NYT 30.

ed. Now I know I can benefit from having to work hard and enjoy being in sync with the world.”²⁷⁴

In the same article, the author covered MIT President L. Rafael Reif’s take on MOOC. Reif believed that

“many universities will offer online courses to students anywhere in the world, in which they will earn “credentials” – certificates that testify that they have done the work and passed all the exams. The process of developing credible credentials that verify that the student has adequately mastered the subject – and did not cheat – and can be counted on by employers is still being perfected by all the MOOCs. But once it is, this phenomenon will really scale... There is a new world unfolding, and everyone will have to adapt.”²⁷⁵

Learning the various stories of the MOOC pioneers, Friedmann concluded:

“I can see a day soon where you’ll create your own college degree by taking the best online courses from the best professors from around the world – some computing from Stanford, some entrepreneurship from Wharton, some ethics from Brandeis, some literature from Edinburgh – paying only the nominal fee for the certificates of completion. It will change teaching, learning and the pathway to employment.”²⁷⁶

5.1.3.3.2 Providers and Elite Universities

This theme incorporates newspaper reporting of MOOCs as a product of elite universities, delivered by providers with close ties to elite universities.

Table 10 Frequency of the Theme Providers and Elite Universities

Term	Frequency	Number of Articles
Coursera	316	75
edX	187	57
Udacity	164	43
Platforms	667	91

²⁷⁴ NYT 30.

²⁷⁵ NYT 30.

²⁷⁶ NYT 30.

Berkeley	35	21
Harvard	176	72
Massachusetts Institute of Technology/MIT	143	62
Pennsylvania	34	25
Princeton	34	17
Stanford	142	60
Yale	59	19
University names	554	100
Koller	41	14
Sandel	15	5
Agarwal	44	18
Thrun	74	21
Big names	174	43

NYT started the MOOC story with an open online course introduced by professors from a world-class university. The fact that the online course “Introduction to Artificial Intelligence” was not offered by any other American college or university but by the famous Stanford University plays an important role in the reporting of the NYT from 2011 till 2020. In just its first two MOOC articles in 2011, the name “Stanford” was mentioned twenty-nine times²⁷⁷.

Immediately following the amazing first MOOC – “Introduction to Artificial Intelligence”, the troika of MOOC – Coursera, Udacity, and edX – came. As soon as three Stanford professors founded the first two MOOC platforms, Daphne Koller and Andrew Ng – the for-profit platform “Coursera”, and Sebastian Thrun – the for-profit platform “Udacity”, the NYT coverage of these MOOC providers was regularly linked to Stanford University. This pattern was reproduced in the NYT news of “edX” when Harvard University and MIT announced this joint non-profit MOOC platform. NYT described the founding of edX as

“In what is shaping up as an academic Battle of the Titans – one that offers vast new learning opportunities for students around the world – Harvard and the Massachusetts Institute of Technology on Wednesday announced a new non-profit

²⁷⁷ NYT 1 and 2.

partnership, known as edX, to offer free online courses from both universities.”²⁷⁸

The two famous names were then mentioned in the same breath with other elite American universities:

“... But Harvard and MIT have a rival – they are not the only elite universities planning to offer free massively open online courses, or MOOCs, as they are known. This month, Stanford, Princeton, the University of Pennsylvania and the University of Michigan announced their partnership with a new commercial company, Coursera, with \$16 million in venture capital. Meanwhile, Sebastian Thrun, the Stanford professor who made headlines last fall when 160,000 students signed up for his Artificial Intelligence course, has attracted more than 200,000 students to the six courses offered at his new company, Udacity.”²⁷⁹

When the NYT made MOOC news like reporting that a new online course went live on Coursera, edX or Udacity, readers often got very little or nothing about the content of the course. However, readers could always know which American elite university is behind a MOOC. If there were a contest in the NYT MOOC Coverage to see which elite university was named most often, the joint-venture partners Harvard University and MIT would be the clear winners with 156 hits. In comparison, Stanford would only get 100 mentions.

In addition to the names of top elite universities, the big names in MOOCs are another high-frequency group. The most notable example is Sebastian Thrun. His idea of a virtual university in which “the best professors broadcast their lectures” is reflected in numerous NYT articles describing a MOOC activity and the experience of individual professors. Most of these professors have a working background at elite universities. As mentioned earlier in this thesis, NYT referred to Peter Norwig and Sebastian Thrun as “two of the world's best-known artificial intelligence experts”,²⁸⁰ When NYT referred to Sebastian Thrun in its reports in various periods, reference was often made to his former position as a professor at Stanford University, his ground-breaking achievements in the

²⁷⁸ NYT 5.

²⁷⁹ NYT 5.

²⁸⁰ NYT 1

development of a self-driving car, his participation in the pioneering online course “Introduction to Artificial Intelligence” or to his initiative to establish the MOOCs provider Udacity.

Notably, the New York Times tends to provide insight into the first MOOC experiences of professors from elite universities, such as Sebastian Thrun. For example, the reason why Thrun ended his professorship at Stanford University and focused entirely on MOOC:

“Having done this, I can't teach at Stanford again ... I feel like there's a red pill and a blue pill, and you can take the blue pill and go back to your classroom and lecture your 20 students. But I've taken the red pill, and I've seen Wonderland.”²⁸¹

Annal Agrawal, the director of MIT's Computer Science and Artificial Intelligence Laboratory who was commissioned by MIT to teach the first MOOC (which ran from March 5 to June 8 and enrolled over 150,000)²⁸² on the new platform called MITx (later folded into edX), sees MOOC as “If anyone was ready for the ride – the '60 million venture aims to reach a billion people”.²⁸³ Recalling his first MOOC experience, he said that he has never expected so much demand when he and his team posted the course on the website: “With no marketing dollars, I thought we might get 200 students.”²⁸⁴ And he was shocked and fell off his seat, questioning if his colleague Piotr Mitros has got the decimal point right once he was told that they're getting 10,000 registrations a day. The time they launched the course became his most fearful moment as he “worried that the system couldn't handle it, and would keel over and die”.²⁸⁵ To cope with the large number of students, Agarwal arranged several teaching assistants who were ready to work for a long time to discuss and answer course-related questions online. And he was surprised to find that the workload of the teaching assistants might not be that much as they expected since the learners will often figure out the answers and solve the questions through peer cooperation:

“One night in the early days, I was on the forum at 2 a.m. when I saw a student ask a question, and I was typing my answer when I discovered that another student had typed an answer

²⁸¹ NYT 5

²⁸² NYT 10.

²⁸³ NYT 10.

²⁸⁴ NYT 10.

²⁸⁵ NYT 10.

before I could. It was in the right direction, but not quite there, so I thought I could modify it, but then some other student jumped in with the right answer. It was fascinating to see how quickly students were helping each other. All we had to do was go in and say that it was a good answer. I actually instructed the T.A.'s not to answer so quickly, to let students work for an hour or two, and by and large they find the answers.”²⁸⁶

When it comes to the global participation of MOOCs, Agarwal said:

“It's been amazing. You'd see someone post in Brazil looking for other students in Brazil so they could meet and have a study group at a coffee shop. Facebook sites for the course popped up, not all in English. There are people in Tunisia, Pakistan, New Zealand, Latin America. And a professor in Mongolia has a group of students taking the course. He got them all a little laboratory kit, so they're doing the experiments live along with the course.”²⁸⁷

The MOOC experiences of other professors of American elite universities which can be read on the NYT sound more or less similar. Mitch Duneier is a Princeton sociology professor. The first MOOC he made is an introductory course in sociology, which late, as he commented, has contributed to his career of teaching and academic research:

“A few months ago, just as the campus of Princeton University had grown nearly silent after commencement, 40,000 students from 113 countries arrived here via the Internet to take a free course in introductory sociology ... My opening discussion of C. Wright Mills's classic 1959 book, 'The Sociological Imagination,' was a close reading of the text, in which I reviewed a key chapter line by line. I asked students to follow along in their own copies, as I do in the lecture hall. When I give this lecture on the Princeton campus, I usually receive a few penetrating questions. In this case, however, within a few hours of posting the online version, the course forums came alive with hundreds of

²⁸⁶ NYT 10.

²⁸⁷ NYT 10.

comments and questions. Several days later there were thousands. ... Within three weeks I had received more feedback on my sociological ideas than I had in a career of teaching, which significantly influenced each of my subsequent lectures and seminars.”²⁸⁸

The story of a professor from an American elite university teaching a MOOC can be read time and time again in the NYT's MOOC articles, ranging from detailed descriptions as those above to one-sentence stories like “For example, Yale Prof. Robert J. Shiller, a recipient of the Nobel Memorial Prize in Economic Science, recently taught a course in financial markets”.²⁸⁹

Some articles go a step further and suggest that a great professor can become even greater through a MOOC. The best example of this narrative is the award-winning NYT columnist Thomas L. Friedmann’s report on a meeting with his friend Michael Sandel, a professor who teaches the famous Socratic at Harvard University and launched his Justice course as the first humanities on edX, the MOOC platform co-founded by MIT and Harvard. The conversation started with a question about Sandel’s colourful sneakers when Friedmann picked him up at Logan Airport. And Sandel explained how he got his shoes:

“he had recently been in South Korea, where his Justice course has been translated into Korean and shown on national television. It has made him such a popular figure there that the Koreans asked him to throw out the ceremonial first pitch at a professional baseball game – and gave him the colored shoes to boot! Yes, a Harvard philosopher was asked to throw out the first pitch in Korea because so many fans enjoy the way he helps them think through big moral dilemmas. Sandel had just lectured in Seoul in an outdoor amphitheater to 14,000 people, with audience participation.”²⁹⁰

According to Friedmann, Michael Sandel is well known not only in South Korea but also in China. With Chinese subtitles, his online Justice course has been viewed over 20 million times on Chinese websites. And he is named by the China Daily as the one

²⁸⁸ NYT 18.

²⁸⁹ NYT 92

²⁹⁰ NYT 40.

who “has the kind of popularity in China usually reserved for Hollywood movie stars and N.B.A. players”.²⁹¹

5.1.3.3 Openness

This topic concerns the free accessibility of courses anywhere to anyone, with a particular emphasis on “free” in the sense of free of charge.

Table 11 Frequency of the Theme Openness

Term	Frequency	Number of Articles
Access/accessible	93	53
Free	290	111
Internet	79	45
Open/openness	342	141
Online	1088	151
Sum	1892	152

A high school diploma is a must for anyone who applies for a Bachelor study in the USA just as a Bachelor degree is a prerequisite for a Master degree. If you want to apply a leading university, for instance, the Stanford University, you need to at least fulfil all the basic requirements for the enrolment including paying the \$90 application fee to Stanford. But meeting all the conditions does not mean 100% success in application, Stanford tops the list of American universities with the lowest acceptance rates, with 4% ahead of Harvard (5%) and Yale (6%). If you get a study place at Stanford University, you have to overcome a financial hurdle in the form of the study costs, whereby the tuition fee makes up the largest part.

Knowing this helps to understand how extraordinary, if not incredible, it must be for readers when they learnt from NYT that Stanford University has put its Artificial Intelligence Course online for free.

“Open” and “free” are two high-frequency words that appear regularly in NYT reports. While the word “open” is part of massive open online courses and is often used for that reason, for example to explain the acronym, this is not the case with the word “free”. Throughout, NYT has employed the word "free" in the sense of fee-free or tuition-free. “Free” is the first word of the headline and the text of NYT’s first MOOC report,²⁹²

²⁹¹ NYT 40.

²⁹² NYT 1.

and the term was used 242 time in the entire MOOC coverage, suggesting that the free accessibility of MOOCs is what the newspaper has been focusing on from the beginning.

The fact that massive open online courses, as the name suggests, are indeed open and accessible to everyone, and nothing illustrates this better than a large number of participants.

The ever-increasing participation of MOOCs, starting with the Stanford course on artificial intelligence, played a prominent role in the NYT MOOC coverage. As mentioned in the previous section, when NYT cited the MOOC experience of leading professors, professors were often overwhelmed by the large number of student participation. (e.g. “Piotr, are you sure you've got the decimal point right?”²⁹³). In the story referring to the famous Stanford online course, following the first article on *Introduction to Artificial Intelligence* with “58,000 students”²⁹⁴, NYT updated the rising number of students to “130,000”²⁹⁵ and then reported the final number of “160,000 students”²⁹⁶, which later was repeated in the further eleven NYT articles when it came to the course.²⁹⁷ And this is not the only case.

- “10,000 students”²⁹⁸,
- “27,000 students”²⁹⁹,
- “40,000 students”³⁰⁰,
- “90,000 students”³⁰¹,
- “92,000 students”³⁰²,
- “100,000 students”³⁰³
- “104,000 students”³⁰⁴
- “120,000 students”³⁰⁵
- “150,000 students”³⁰⁶

²⁹³ NYT 10

²⁹⁴ NYT 1

²⁹⁵ NYT 2.

²⁹⁶ NYT 5.

²⁹⁷ NYT 5, 6, 8, 9, 15, 23, 27, 31, 44, 70, 83 and 92,

²⁹⁸ NYT 10, 45, 64, 66, 94, 96 and 122.

²⁹⁹ NYT 45.

³⁰⁰ NYT 8, 23 and 30.

³⁰¹ NYT 4, 5 and 50.

³⁰² NYT 5.

³⁰³ NYT 5, 7, 27, 58, 83 and 119.

³⁰⁴ NYT 5.

³⁰⁵ NYT 6 and 87.

³⁰⁶ NYT 10, 18, 57 and 76.

- “200,000 students”³⁰⁷
- “1,8 million students”³⁰⁸

These are some eye-catching numbers that are often seen in NYT reports on a certain MOOC. The last “1,8 million students” is the number that the course *Learning how to learn* achieved, which was offered on Coursera and instructed by Barbara Oakley and Terry Sejnowski, described as the “world's popular online course”³⁰⁹ by NYT.

With NYT’s continued in-depth reports on MOOC providers such as Coursera, edX and Udacity, the numbers appearing are getting even bigger since the protagonist of the reports changed from a course to a MOOC platform.

- “150,000 students”³¹⁰
- “300,000 students”³¹¹
- “680,000 students”³¹²
- “900,000 students”³¹³
- “1 million students”³¹⁴
- “1,7 million students”³¹⁵
- “2 million students”³¹⁶
- “2,4 million students”³¹⁷
- “2,7 million students”³¹⁸
- “5 million students”³¹⁹
- “7 million people”³²⁰
- “25 million course enrollments”³²¹

As shown above, the specific figures reported by the NYT relate either to the number of participants that an individual course hits or a certain provider reaches with its courses. In the first case, it expresses appreciation for the topic and content or the

³⁰⁷ NYT 13 and 14.

³⁰⁸ NYT 128.

³⁰⁹ NYT 128.

³¹⁰ NYT 11.

³¹¹ NYT 30.

³¹² NYT 8.

³¹³ NYT 35.

³¹⁴ NYT 12.

³¹⁵ NYT 18.

³¹⁶ NYT 21, 26.

³¹⁷ NYT 30, 31

³¹⁸ NYT 35.

³¹⁹ NYT 79.

³²⁰ NYT 93

³²¹ NYT 96.

instructor of certain individual MOOC. In the second case, the numbers read more like success stories for American MOOC providers. So this is - unspoken - more about business and less about education.

In addition to the reports on more or less precise numbers of participants for individual courses or individual providers, NYT often formulates the large number of MOOCs students more general in sentences such as “millions of students have flocked to free massive open online courses”³²² Furthermore, the numbers of countries covered by the massive learner groups are also something that NYT revels in. Sometimes the countries where the learners came from were listed one by one, and sometimes only a stunning total number of the countries was given.

In its first MOOC article on the Stanford Artificial-Intelligence-Course, NYT reported that learners from 175 countries registered for the course³²³, and this number was updated in the following sixth article to 190³²⁴, which was repeated four times more in later reports.³²⁵ Besides this ground-breaking course, there were some other pioneer courses which attracted learners from

- “110 countries”,³²⁶
- “113 countries”,³²⁷
- “138 countries”,³²⁸
- “196 countries”,³²⁹ and
- “200 countries”.³³⁰

5.1.3.3.4 Commodification

This theme involves the portrayal of higher education as a business and the expectation that MOOCs will make the commodity “higher education” much more affordable.

³²² NYT 13.

³²³ NYT 1.

³²⁴ NYT 5.

³²⁵ NYT 8, 23, 92 and 106.

³²⁶ NYT 13, and 14.

³²⁷ NYT 30.

³²⁸ NYT 126.

³²⁹ NYT 15.

³³⁰ NYT 128 regarding the course “Learn how to learn”.

Table 12 Frequency of the Theme Commodification

Term	Frequency	Number of Articles
Cost/s	151	70
Economic/Uneconomic	68	37
Tuition	70	41
Fee	50	33
Monetary cost	240	94
Business	159	59
company	306	147
Dollar/\$	230	74
Money	84	42
Invest	57	32
Venture	63	42
Business	899	153

As far as the NYT's reporting is concerned, it is again Sebastian Thrun who sets the tone from the start. In his view, as we read earlier in the paper, traditional higher education is far too expensive, so there is no way around a low-cost alternative. Quite in this sense, the issue of saving costs played a great role in the NYT coverage of MOOC.

The term “cost” appears a total of 127 times in the articles. Regarding the costs of traditional higher education - which are perceived to be too high – one finds expectations that MOOCs will

- “reduce costs by using educational technology”³³¹
- “provide low-cost courses”,³³² or
- “bring down the costs”.³³³

or statements like:

“Experts say several factors have helped propel MOOCs to the center of the education stage, including improved technology and the exploding costs of traditional universities.”³³⁴

Although the question of who will pay the bill for MOOCs is unclear since the beginning, it is clear that who is paying the high price of the current higher education in

³³¹ NYT 7

³³² NYT 16.

³³³ NYT 21

³³⁴ NYT 5.

the USA today. Along with the state, it is the American students and their families. Therefore, the fact that the rising expense of education for students caused by the increasing cost borne by universities is an ongoing topic in NYT's MOOC coverage, with the following expressions appearing frequently in the newspaper's articles:

- "tuition increase"³³⁵
- "ever-higher tuition"³³⁶
- "ever-rising tuition"³³⁷
- "tuition of more than \$4,000 a course"³³⁸
- "high tuition"³³⁹
- "raise tuition"³⁴⁰
- "raising tuition"³⁴¹
- "the escalation of tuition"³⁴²
- "tuition rising"³⁴³
- "rise in tuition"³⁴⁴
- "higher tuition"³⁴⁵

College diplomas are widely recognized and accepted as proof of completion of traditional college studies. Assuming that online education like MOOC can realize equivalent teaching as traditional education, the biggest problem for online education may lie in whether it can provide a convincing certificate of achievement. Given the low cost of online learning, once the MOOC initiators are ready to issue credentials equivalent to traditional college diplomas to learners who successfully complete certain online courses, then it might be a helpful solution for the high college fees. Would it be possible for MOOCs to offer such a credential to their learners, whether in paper or in a digital form? NYT sounded positive in 2012:

"If digital badges infiltrate the credential market, they
could shake the economic foundations of a higher education

³³⁵ NYT 7.

³³⁶ NYT 7.

³³⁷ NYT 16.

³³⁸ NYT 22

³³⁹ NYT 23

³⁴⁰ NYT 25

³⁴¹ NYT 65.

³⁴² NYT 74.

³⁴³ NYT 101.

³⁴⁴ NYT 104.

³⁴⁵ NYT 91.

industry that over the last 30 years has consistently increased prices much higher than inflation and family income, resulting in over \$1 trillion in outstanding student loan debt.”³⁴⁶

It's one thing that you can make any course of study cheaper with 150,000 students taking online courses together, or— in the words of Sebastian Thrun – that you can offer the same quality of teaching for “1 to 2 percent of the cost”.³⁴⁷ Yet another thing is what advantages or benefits the higher education institutions that offer MOOCs can enjoy. If higher education is a business, a business model is needed.

An analysis of the NYT's coverage on this issue shows that in the early days the NYT did not persistently ask for a business model, but rather simply assumed it. The assumption was based on the observation that elite universities such as Harvard and MIT had come together to create and fund a joint MOOCs platform with millions of dollars, and venture capitalists from Silicon Valley were also willing to financially support the private MOOC start-ups founded by well-regarded professors from Stanford.

In May 2012, NYT introduced the joint venture of Harvard and the Massachusetts Institute of Technology:

“In what is shaping up as an academic Battle of the Titans - one that offers vast new learning opportunities for students around the world - Harvard and the Massachusetts Institute of Technology on Wednesday announced a new nonprofit partnership, known as edX, to offer free online courses from both universities.”³⁴⁸

Regarding financing, we read:

“EdX, which is expected to offer its first five courses this fall, will be overseen by a nonprofit organization governed equally by the two universities, each of which has committed \$30 million to the project.”³⁴⁹

The cooperation and investment are often repeated in later reports, sometimes with the total amount of \$60 million and sometimes the individual \$30 million.³⁵⁰

The use of venture capital to launch the for-profit MOOCs provider Coursera was

³⁴⁶ NYT 16

³⁴⁷ NYT 2

³⁴⁸ NYT 6.

³⁴⁹ NYT 6.

³⁵⁰ NYT 10, 11, 26.

also covered by the NYT. A start-up fund of \$16 million was reportedly mentioned first, followed by more than \$22 million in venture capital from Silicon Valley. NYT did not mention with what capital the MOOCs provider Udacity was launched. Not until very late, namely in 2020, before the NYT readers learnt that the company received a total of \$35 million from its investors.

There is a well-known formula for every internet business: Let's build reach and market dominance first - a business model can always be found later! Viewed in this light, it is perhaps not all that surprising that the NYT waited until 2013 to ask SEBASTIAN THRUN about the business model behind MOOCs. Thrun's frank answer:

“The truth is for all these massive online courses that are being offered for free, there's clearly a question of what our business model is, and I don't think there is a good answer quite yet.”³⁵¹

A few weeks later, when the NYT asked Ben Nelson, the founder, chairman, and CEO of an education project named Minerva, the same question, he said:

“A school cannot charge students \$40,000 and then turn around and offer them online courses that they can get free or nearly free. That business model simply does not work. There will be no such thing as a MOOC university.”³⁵²

5.1.3.3.5 Pedagogy

This theme refers to mentions of teaching and learning and the pedagogy of MOOCs.

Table 13 Frequency of the Theme Pedagogy

Term	Frequency	Number of Articles
Assignment	38	23
Chat/Chat rooms	9	8
Didactic	0	0
Learn/Learner/Learning	575	121
Multiple-Choice	8	6
Pedagogy/Pedagogical	17	14
Peer grading/Peer grades/Peer interaction	9	7

³⁵¹ NYT 44

³⁵² NYT 46

Quiz	37	27
Teach/Teacher/Teaching	408	101
Text	67	30
Test	145	70
Video	147	53
Sum	1460	143

Even though R&H identifies pedagogy as a prominent theme in other researchers' previous research as well as in their own research, they themselves did not address this topic in any detail in their publication. Therefore, it is difficult to determine whether and to what extent the NYT's statements about this MOOC topic are consistent with the research on newspapers in other Western countries.

As we've learned from the first NYT article, Sebastian Thrun expected the same quality from traditional universities and virtual universities ("the same quality of education I teach in class"³⁵³), while seeing some problems that are yet to be solved in the early days ("How do you keep an invisible student from cheating? How do you even know who is sitting at that remote keyboard? Will the education really be as compelling - and will it last?"³⁵⁴).

However, after a few articles in just a few days, these open questions no longer seem to be an issue. Instead of, the Internet and online working seem to be an effective way to solve all problems. NYT quoted Sebastian Thrun's words as:

"In a classroom, when you ask a question, one student answers and the others don't get a chance...Online, with embedded quizzes, everyone has to try to answer the questions. And if they don't understand, they can go back and listen over and over until they do. Just as a child who falls while learning to ride a bike is not told 'You get a D', but is encouraged to keep trying...online classes, where students can work at their own pace, can help students keep practicing until they master the content. The goal should be to get everybody to A+ level."³⁵⁵

To strengthen this argument, NYT added that: "Several students in Mr. Thrun's

³⁵³ NYT 2

³⁵⁴ NYT 2.

³⁵⁵ NYT 5.

class last semester, contacted by e-mail, said the MOOC worked for them”.³⁵⁶

The various educational tools – video, quiz, peer-to-peer interaction, online grading, etc. – which are employed online to realize a MOOC were repeatedly introduced and listed. On the contrary, there was little coverage of further pedagogical content related to education. Didactics and pedagogy rarely appeared in the NYT articles about MOOCs. The term “pedagogy” or “pedagogical” can be found seventeen times in the entire MOOC coverage. When NYT applied these terms, it did not mean that they interviewed any education experts on this topic. Rather, the newspaper restricted itself to asking MOOC players, such as Ansgar Agarwal, for comments:

“Anant Agarwal, an electrical engineer who is president of EdX, predicted that the instant-grading software would be a useful pedagogical tool, enabling students to take tests and write essays over and over and improve the quality of their answers. He said the technology would offer distinct advantages over the traditional classroom system, where students often wait days or weeks for grades.”³⁵⁷

It is not surprising that the IT expert Sebastian Thrun and the electrical engineer Anant Agarwal were eager to address all challenges with “technology”, even if they are didactic and pedagogical challenges. The surprising thing, however, is that the NYT reporters were delivering this without any comments.

5.1.3.3.6 MOOC as Experimental

This theme includes references to the uncertainty of the application of MOOCs, their future in higher education, or their business viability.

Table 14 Frequency of the Theme MOOC as Experimental

Term	Frequency	Number of Articles
Experimental	25	18

If you look at the MOOC coverage in the first few years, you will see that in many articles, high expectations related to MOOC accounted for about 90%, while the sceptical attitude accounted for about 10%, which shows a bit of a “yes, but” attitude.

³⁵⁶ NYT 5.

³⁵⁷ NYT 47.

The NYT gave a loud “yes” that MOOCs would change the higher education landscape, and a quiet “but” insofar as MOOCs were still in the experimentation phase. The corresponding formulations are “still completely experimental”³⁵⁸, “still experimental”³⁵⁹ and “experimental” or “an experiment”³⁶⁰.

As it became increasingly apparent in 2013 and 2014 that the high expectations placed on MOOCs have not yet been met and may never be met, the term “experiment” took on a different meaning in the NYT story. The term “experiment” now also represents failure. In this sense, the NYT quoted the most famous representative of MOOCs:

“To all those people who declared our experiment a failure, you have to understand how innovation works,” he wrote on his blog. “Few ideas work on the first try. Iteration is key to innovation. We are seeing significant improvement in learning outcomes and student engagement.”³⁶¹

5.1.3.4 Interaction between Media and Social Actors

According to Vasterman, there is an interaction between the media and social actors, that is, increased reports of social actions triggered by news waves will lead to increased reports of social actors’ reactions.

Indeed, one of the consequences of the media blitz on MOOCs is that universities are finding themselves under mounting pressure to invest in them. Going through the NYT MOOC coverage, we may find an interesting phenomenon, which is that many university representatives expressed a similar idea: they cannot afford to hesitate, even if they do not fully understand why they should join in the MOOC movement.

Of all such incidents in NYT, one of the most notable instances is the forced resignation of a university president in 2012, which most clearly showed the great uncertainty and nervousness of universities. Under the headline “*For many Public Universities, Fight at Virginia Is All Too Familiar*”, the NYT newsman commented:

“The tumult at the University of Virginia – with the sudden ouster of President Teresa Sullivan on June 10, and the

³⁵⁸ NYT 1

³⁵⁹ NYT 6, 8, 23, 35, 66

³⁶⁰ NYT 1, 2, 15, 18, 19, 55, 60, 64, 73, 83.

³⁶¹ NYT 83.

widespread anticipation that she will be reinstated on Tuesday – reflects a low-grade panic now spreading through much of public higher education.”³⁶²

He also quoted the reaction of Mark G. Yudof, the president of the University of California. President Yudof mused if it was possible to be a successful president of a public university, and answered:

“I’m not willing to say these jobs are impossible, but these are very difficult times. You want to be more efficient, but you don’t want to make changes so fast that you endanger academic values and traditions and alienate the faculty. But you can’t go too slow, or you alienate the board and the legislature. It’s a volatile mix.”³⁶³

According to NYT, the university board’s sudden decision to forcibly dismiss the president was particularly shocking, given that there were no allegations of misconduct, no long-term differences between the president and the board, and – even now – no clear explanation as to why Helen E. Dragas, the rector made such a decision. Nevertheless, NYT gave its own conclusion with further information. Ms. Dragas had a great sense of urgency in finding new revenue streams for the university and was extremely concerned about the MOOC movement led by universities such as MIT and Stanford. Once, in an email entitled “Why we can’t wait”, she sent a newspaper editorial on the issue to the board and clarified the urgency of launching MOOCs. And in a statement about Dr. Sullivan’s ouster on June 10, we may find the conclusion that all she did was to keep the position of the University of Virginia “under a model of incremental marginal change” while the world is moving so fast.³⁶⁴

5.1.3.5 The End of the MOOC Hype

Looking at the curve of the NYT MOOC reports for the period 2010-2020, we see a steady decline in coverage starting in mid-2014. Why mid-2014? The question becomes even more relevant when comparing the NYT MOOC coverage with that of the Chinese newspaper Guangming Daily, which has maintained long and continuous reports on the issue.

³⁶² NYT 7.

³⁶³ NYT 7.

³⁶⁴ NYT 7.

If one tries to find the trigger for this “downward movement” in the NYT articles, the one published on 7 November, titled “Demystifying the MOOC”³⁶⁵ should not be overlooked. The article opened with an account of the great expectations placed on MOOCs from the beginning:

“When massive open online courses first grabbed the spotlight in 2011, many saw in them promise of a revolutionary force that would disrupt traditional higher education by expanding access and reducing costs. The hope was that MOOCs – classes from elite universities, most of them free, in some cases enrolling hundreds of thousands of students each – would make it possible for anyone to acquire an education, from a villager in Turkey to a college dropout in the United States.”³⁶⁶

In just two years, MOOC has fallen from its “peak of inflated expectations” in 2012 to the “trough of disillusionment” in 2014, according to the NYT. The newspaper believed that there are two reasons behind: first, MOOC has failed in their role of benefiting the underprivileged groups which desire top-tier higher education. Instead, it is more a means for those who are well-educated to recharge themselves. Just as NYT wrote:

“the average student in a MOOC is not a Turkish villager with no other access to higher education but a young white American man with a bachelor's degree and a full-time job. Eight of every 10 students enrolled in University of Michigan and University of Pennsylvania MOOCs in 2012-13 already had a degree of some kind. The credentials gap was most pronounced in countries where the courses were supposed to have the biggest impact among the undereducated: Some 80 percent of MOOC students in Brazil, China, India, Russia and South Africa had a college degree, while in the overall population only 5 percent did.”³⁶⁷

Second, MOOC is not able to replace traditional education, instead, it is more of a plus for elite students. A well-known experiment at the San Jose State University backed

³⁶⁵ NYT 106.

³⁶⁶ NYT 106.

³⁶⁷ NYT 106.

by the government Jerry Brown of California shows that the pass rate of MOOC students is much lower than that of their peers taking traditional courses. The pass rate of the two experimental groups are 50% and 25% respectively. Sebastian Thrun, the co-founder of Udacity, which provided the MOOCs for the experiment, has therefore decided to shift the company's focus to paid courses for corporate and vocational training since he realized that "The basic MOOC is a great thing for the top 5 percent of the student body, but not a great thing for the bottom 95 per cent".³⁶⁸

No matter what kind of role the article "Demystifying MOOCs" from November 2, 2014 had on the fact that the "tide has turned", the number of NYT reports about MOOCs decreased dramatically since then. Before that, there were an average of more than 25 articles published every year, and then only 4 articles per year.

Years later, NYT released an article on May 2, 2020, asking its readers: "Remember the MOOCs? After Near-Death, They're Booming". In this article the readers learn that by 2020, the raging COVID-19 has severely restricted all offline work, study and life, and MOOCs which are not restricted by space and distance once again gained attention. It was reported that Coursera saw an increase of 10 million new users within 2 months, seven times the rate of new registrations in the previous year. Nevertheless, this has not generated any new hype around the topic of MOOCs in the NYT.

³⁶⁸ NYT 106.

5.2 MOOC Coverage in China

5.2.1 Education in China before MOOC

5.2.1.1 The Chinese Dream of Education

The dream of universal compulsory education in China began in the late Qing Dynasty, a century ago. When Zhang Baixi, a government official during the late Qing Dynasty, visited Great Britain in 1901, he found that it is education that made the tiny island nation a global economic power, and then drafted the “Authorized School Regulation”, also known as “Renyin Educational System”, which was issued by the government in 1902, being the first official school system in the history of education in China although it was not actually implemented. In 1903, based on the Japanese system, Zhang redesigned the school system called “Presented School Regulation” or “Guimao Educational System” together with two other officials Rong Qing and Zhang Zhidong, which was put into effect in January 1904. This is the first educational system in modern China to be published by educational decree and implemented nationwide. It had a significant impact on modern Chinese education as it set out clear regulations on school education curriculum, education administration and school management, based on the division into several stages, namely primary education, secondary education and higher education.³⁶⁹ The Guimao Educational System made the first official introduction of the concept of “compulsory education” – primary education is the important starting point of education, which should be compulsory in all countries, and no tuition should be charged³⁷⁰, which is considered to be the official beginning of compulsory education in modern China.

With the dream of compulsory education in mind, the Chinese government and people have carried on a century-long difficult relay. However, due to political rottenness, economic backwardness and lack of livelihood, the old China was unable and incapable of turning the call of the aspirants and the aspirations of the people into reality, and universal compulsory education became just an empty phrase. The long-standing

³⁶⁹ Li, H. (2008). 浅析中国近代第一部学制——壬寅、癸卯学制 [An analysis of the first school system in modern China - the Renyin and Guimao educational systems]. *Contemporary Education Forum*, 2008(5), p.38-39.

³⁷⁰ Zhang, Z., Zhang, B., & Rong, Q. (1903). 奏定学堂章程学务纲要 [Compendium of school statutes and academic affairs (Zouding Xuetaang Zhangcheng)]. Also known as Guimao Education System, original text: “初等小学堂为养正始基，各国均认为国家之义务教育”，and “此项学堂，国家不收学费，以示国民教育国家认为义务之本意”.

backward political system and backward productivity made education in old China extremely poorly accessible.

In 1949, at the beginning of the People's Republic of China, the illiteracy rate was as high as 80% of the country's 540 million people, with no more than 20% school-age children enrolled in school. The total scale of China's education at all three levels – primary education, secondary education and higher education – was only 25.75 million, of which 1.25 million and 24.39 million students were enrolled in secondary and primary education respectively. Higher education was much less developed. There were only 205 general higher education institutions with 117,000 students and a gross university enrolment rate of 2.2 per 1,000.³⁷¹

Since the adoption of the *Common Programme of the Chinese People's Political Consultative Conference* in 1949, which states that universal education should be implemented in a planned and systematic manner, the cause of compulsory education in new China has begun a whole new stage of development. Article 47 of the Programme stipulates:

“In order to meet the extensive requirements of revolutionary and national construction work, universal education shall be carried out, secondary and higher education shall be strengthened, technical education shall be stressed, the education of workers during their spare time and that of cadres at their posts shall be strengthened, and revolutionary political education shall be accorded to both young and old-type intellectuals. All this is to be done in a planned and systematic manner.”³⁷²

In the years from 1949 and 1965, a total of nearly 100 million young adults developed literacy skills which led to a rapidly drop in illiteracy to 38.10%.³⁷³

Believing that “to catch up with the world's advanced level, we must start with science and education”, Deng Xiaoping volunteered to be in charge of education and science soon after he resumed his work in 1977.³⁷⁴ The same year, on 21st October, the National College Entrance Examination, which had been suspended for 10 years, was

³⁷¹ National Bureau of Statistics (2021), Education Statistics – 1949.

³⁷² Chinese Political Consultative Conference (1949). *Common Programme of the Chinese People's Political Consultative Conference*. Article 47.

³⁷³ Ding, Y. (2019, October 25). 教育优先 筑基发展 (大数据观察·辉煌70年) [Prioritising education to build a foundation for development]. Renmin Daily.

³⁷⁴ He, D. ed. (1998a). 中华人民共和国重要教育文献 1976-1990 年 [Important Educational Documents of the People's Republic of China 1976-1990]. Haikou: Hainan Publishing House.p.1573

officially announced to resume. In April 1978, at the National Conference on Education, Deng Xiaoping called for the improvement of the quality of education. At the end of 1978, China's population was close to 1 billion and with an illiteracy rate of 25 per cent. 30-40 per cent of the young adults were illiterate.³⁷⁵ In the same year, led by Deng Xiaoping, the Chinese economic reform “Reform and Opening-up” was launched,³⁷⁶ which greatly accelerated the progress of education.

The *Constitution of the People's Republic of China*, adopted in 1982, provides for compulsory education in mainland China. Article 19 states:

“The state undertakes the development of socialist education and works to raise the scientific and cultural level of the whole nation. The state establishes and administers schools of various types, universalizes compulsory primary education and promotes secondary, vocational and higher education as well as preschool education.”³⁷⁷

The *Compulsory Education Law of the People's Republic of China*, issued on 12 April 1986, clearly states:

“The state shall institute a system of nine-year compulsory education. The authorities of provinces, autonomous regions, and municipalities directly under the Central Government shall decide on measures to promote compulsory education, in accordance with the degree of economic and cultural development in their own localities.”³⁷⁸

And:

“The state shall not charge tuition for students receiving compulsory education. The State shall establish a system of grants-in-aid to support the school attendance of poor

³⁷⁵ Zheng, H., & Lin, Y. (2009). *六十年国事纪要—文化卷*. [A Sixty-year Chronology of China – Culture]. Hunan People's Publishing Press. ISBN 9787543860278. & Ban, J., & Jin, H. (2018, May 2). 著名经济学家林毅夫:改革开放创40年经济增长奇迹. [Justin Lin Yifu's Speech: A forty-year economics miracle of Reform and Opening Up]. Xinhuanet.

³⁷⁶ News of the Communist Party of China (2007). *1977年邓小平关于恢复高考的讲话和批示选载*. [Excerpts from Deng Xiaoping's Speeches and Instructions on the Resumption of College Entrance Examinations in 1977].

³⁷⁷ See Constitution of the People's Republic of China (Adopted at the Fifth Session of the Fifth National People's Congress on December 4, 1982; Promulgated for implementation by the Proclamation of the National People's Congress on December 4, 1982). Article 19. Hong Kong e-Legislation.

³⁷⁸ National People's Congress, PRC. (1986). *Compulsory Education Law of the People's Republic of China*, Article 2.

students.³⁷⁹“

In 1985, one of the most important documents in the process of China's educational reform and opening up, the *Decision of the Central Committee of the Communist Party of China on the Reform of the Education System*, stated:

An important key to the success or failure of things in the future lies in talent, and to solve the problem of talent, it is necessary to make education a major development on the basis of economic development.³⁸⁰

The publication of this document is a watershed in China's education system. Before that, the education system was a “planned” and “centralised” one in line with the planned economy; after that, a new education system adapted to the market economy was gradually explored and established, with decentralisation from the central to the local governments and penetration from governments to the society.

In 1987, the 13th National Congress of the Communist Party of China clearly stated for the first time:

The development of science, technology and education should be given top priority, so that economic construction can be shifted to the track of relying on scientific and technological progress and improving the quality of workers.³⁸¹

On 12th October 1992, the 14th Party Congress put the goal of “by the end of this century, the basic universalization of nine-year compulsory education and the basic elimination of illiteracy among young adults”, known as the project of “Two Basics”, into the Party's documents and national laws and regulations, making the “Two Basics” a major concern for the whole Party and the whole country.³⁸²

In 1993, the Outline for the Reform and Development of Education in China proposed that:

governments at all levels must earnestly implement the

³⁷⁹ National People's Congress, PRC. (1986). *Compulsory Education Law of the People's Republic of China*, Article 10.

³⁸⁰ He, D. ed. (1998a). *中华人民共和国重要教育文献 1976-1990 年*[Important Educational Documents of the People's Republic of China 1976-1990]. Haikou: Hainan Publishing House. p.2285.

³⁸¹ Zhao, Z. (1987). *沿着有中国特色的社会主义道路前进——在中国共产党第十三次全国代表大会上的报告*[Advancing along the road to socialism with Chinese characteristics - Report to the 13th National Congress of the Communist Party of China]. People's Press, 3-23.

³⁸² Zhai, B., Liu, H., Li, Y., & Zhang, Y. (2012, September 10). *中国普及九年义务教育和扫除青壮年文盲的报告*[Report on the Universalization of Nine-Year Compulsory Education and the Eradication of Illiteracy among Young Adults in China]. China Education News.

principle stipulated in the Decision of the Central Committee of the Communist Party of China on the Reform of the Education System, that is “the growth in education allocations by the central and local governments should be higher than the growth in recurrent fiscal revenues, and that the average cost of education based on the number of students in school should gradually increase”, effectively ensure that teachers' salaries and the average public expenditure per student increase year by year.³⁸³

Since 1986, China has used 25 years to universalize free compulsory education in both urban and rural areas, fundamentally solving the schooling problem of school-age children and adolescents. In 2001, the national illiteracy rate fell to less than 6.72% of the population, and the illiteracy rate among people aged 15-50 years dropped to below 4.8%,³⁸⁴ basically realizing the goal of the “Two Basics” project. From this stage onwards, new problems became increasingly evident: the disparity in the level of schooling and quality of education between regions, urban and rural areas and schools has come to the fore, becoming a deep-seated cause of hotspots and difficult issues such as school choice, excessive academic burden on students and indiscriminate fees. Promoting the balanced development of compulsory education and ensuring that all school-age children and youth receive fair and quality compulsory education has become a strategic task for compulsory education in the new era. As a result, the Compulsory Education Law was further revised in 2006. Article 2 states:

“The State adopts a system of 9-year compulsory education. Compulsory education is education which is implemented uniformly by the State and shall be received by all school-age children and adolescents. It is a public welfare cause that shall be guaranteed by the State. No tuition or miscellaneous fee may be charged in the implementation of compulsory education. The State shall establish a guarantee mechanism for operating funds for compulsory education in order to ensure the

³⁸³ CPC Central Committee & State Council, PRC. (1993). *中国教育改革和发展纲要 [Outline of the China's Education Reform and Development]*. Chapter 6, Article 48.

³⁸⁴ The Office of Educational Affairs of the Embassy of P.R. China in USA. ed. (2016, March 3). *中国教育改革与发展情况. [China's Education Reform and Development]*. Office of Educational Affairs of the Embassy of P.R. China in USA.

implementation of the system of compulsory education.”³⁸⁵

And Article 6 proposes for the first time in the form of a law to promote the balanced development of compulsory education, which is the first time that the concept “balanced development of compulsory education” is mentioned in Chinese law.³⁸⁶

In the process of universalizing compulsory education, the Chinese government has placed emphasis on equity in education, especially on the issue of education in poor rural areas and the protection of girls' right to education. According to the MOE statistics, the gap between urban and rural areas in the enrolment rate of primary-school-age children narrowed from 4.7 percentage points in 1985 to 0.6 percentage points in 2000; the gap between Shanghai, which had the highest enrolment rate of primary-school-age children, and the Tibet Autonomous Region, which had the lowest, narrowed from 53.5 percentage points in 1985 to 14.2 percentage points in 2000; the gap between the enrolment rate of girls in primary school and the total enrolment rate narrowed from 5.5 percentage points in 1985 to 0.04 percentage points in 2000.³⁸⁷ In 2010, the net enrolment ratio of school-age children reached 99.7%,³⁸⁸ and illiteracy between the ages of 15 and 24 has been eradicated and the adult illiteracy rate was reduced to less than 5%.³⁸⁹

The *Outline of the National Plan for Medium and Long-Term Education Reform and Development (2010-2020)* (hereinafter referred to as the “National Education Plan”) released on 29th July 2010 set out the strategic goals for education reform and development in the next 10 years: by 2020, basically realize the modernization of education, basically form a learning society, and enter the ranks of strong human resources.³⁹⁰ Written in the preamble, the National Education Plan states:

“A nation’s enduring future hinges on education. Education is the cornerstone of national rejuvenation and social progress, and a fundamental way to improve citizens’ quality and promote their all-round

³⁸⁵ National People's Congress, PRC. (2006). *Compulsory Education Law of the People's Republic of China*. Adopted at the Fourth Session of the Sixth National People’s Congress on April 12, 1986, and amended at the 22nd Session of the Standing Committee of the Tenth National People’s Congress on June 29, 2006. Article 2.

³⁸⁶ National People's Congress, PRC. (2006). *Compulsory Education Law of the People’s Republic of China*. Article 6.

³⁸⁷ Zhang, Z., Zhang, J., Fu, L., & Shen, B. (2006). *中国教育发展状况分析[Analysis of China's Educational Development]*. Shanghai Academy of Educational Sciences.

³⁸⁸ Xie, Y. ed. (2011). *Net Enrolment Ratio of School-age Children in Primary Schools*. Ministry of Education of the People’s Republic of China.

³⁸⁹ MOE, PRC. (2011, October 31). *2010 全国教育事业发展情况 [2010 National education development]*. Ministry of Education of the People’s Republic of China.

³⁹⁰ State Council, PRC. (2010). *Outline of China’s National Plan for Medium and Long-term Education Reform and Development 2010-2020*.

development, bearing the hope of millions of families for a better life. Education must be enhanced if a nation is to prosper. Giving priority to developing education and raising its modernization level are key to attaining the goal of building a moderately prosperous society in all respects, and making China a prosperous, strong, democratic, culturally advanced and harmonious modern socialist country.

...

The world today is undergoing great development, profound changes and major adjustments. Both world multi-polarization and economic globalization are witnessing in-depth development. Science and technology are making rapid strides, and competition for talents or professionals is intensifying with each passing day. China is currently at a key stage for reform and development, as all-round progress is being made in economic, political, cultural and social development as well as in promoting ecological civilization. As industrialization, informatisation, urbanization, marketization, and internationalization develop in depth, China is seeing increasing pressure from its vast population, limited natural resources, the environment, and its transformation of economic growth pattern.

All those have highlighted the pressing need to enhance citizens' quality and cultivate innovative personnel. The future development and great rejuvenation of the Chinese nation are predicated on talents or professionals, and on education.

In the face of unprecedented opportunities and challenges, we must stay levelheaded about the fact that education in this nation is still lagging behind the requirements of national socioeconomic development and people's demand for fine education. Our concept of education and our teaching contents and methodology are relatively outdated, schoolwork burdens on primary and middle school students too heavy, the promotion of quality education arrested, our students weak in their adaptability to society, and innovative, practical and versatile professionals in acute shortage. Our education system and mechanisms are yet perfect. Schools lack vitality in their operations, and the structure and geographical distribution of education resources are yet to be put on an even keel.

Impoverished and ethnic autonomous areas are trailing behind in education development, which is also uneven between urban and rural areas and between different regions. Education funding cannot keep up with demands, and education is yet to be accorded the strategic priority it deserves. To receive quality education is the outcry of the people, and to deepen education reform has been public's shared desire."³⁹¹

On 5th September 2012, the State Council of the People's Republic of China issued the *Opinions on Furthering the Balanced Development of Compulsory Education*, which further clarified the responsibilities of local governments at all levels and proposed that the basic objectives of promoting the balanced development of compulsory education are: every school meets the national standards for school operation and funding for school operation is guaranteed; educational resources meet the teaching needs of the schools and the national curriculum is available; teachers are more reasonably allocated and the overall quality of teachers is improved.

5.2.1.2 Higher Education in China

*Table 15 Education Scale of Higher Education, Secondary Education & Primary Education (1949-2010)*³⁹²

Year	Higher Education	Secondary Education	Primary Education	Total Scale
1949	117,000	1,245,000	24,391,000	25,754,000
1950	137,000	1,305,000	28,924,000	30,744,000
1960	962,000	10,260,000	93,791,000	109,017,000
1970	48,000	26,419,000	105,280,000	135,244,000
1980	1,144,000	55,081,000	146,270,000	269,706,000
1990	2,063,000	45,860,000	122,414,000	239,420,000
2000	5,561,000	73,689,100	130,132,548	311,810,748
2010	22,318,000	77,032,478	99,407,000	313,313,983

Since the founding of the People's Republic of China, higher education in China has gone through four phases:

³⁹¹ State Council, PRC. (2010). *Outline of China's National Plan for Medium and Long-term Education Reform and Development 2010-2020*.

³⁹² According to data from China's National Bureau of Statistics. From 1949 to 2021, the scale of China's higher education increased by 281 times, secondary education increased by 60 times, and primary education increased by 4 times.

- 1949 – 1965 The Foundation Phase

In 1949, China had only 205 higher education institutions, with a gross enrolment of 0.26% and less than 120,000 college students, including only 30,000 students majoring in STEM-related subjects.³⁹³ In 1950, the State Council approved the Provisional Regulations for Training Schools, and gradually proceeded to take over and reform the old-style colleges and universities, building a new higher education system based on the inherited higher education resources and the Soviet experience.³⁹⁴ Since 1952, an extensive restructuring of higher education institutions was carried out with the policy of “focusing on training talents for industrial construction, developing specialized colleges, and reorganizing and strengthening comprehensive universities” to meet the needs of the nation’s development. By 1957, the total number of higher education institutions in China had been increased to 229, including 17 comprehensive universities, 44 industrial institutions and 58 Normal colleges.³⁹⁵

During the 1958-1960 Great Leap Forward, there was a boom in the establishment of colleges and universities all over the country, especially department-run schools became the main feature of this period, and the number of colleges and universities and the scale of students in the country increased considerably. And the same time, China experienced the greatest economic hardship since its founding when it suffered three-year widespread famine, which had a negative impact on all sectors of the society, as well as on higher education. In 1961, in accordance with the policy of the Central Committee of the Communist Party of China of “adjust, consolidate, enrich and improve”, the education sector continued to undergo substantial restructuring, the quality of teaching and scientific research in higher education institutions was largely improved while the number of colleges and universities reduced by two-thirds.³⁹⁶ At this phase, the unified national system of higher education was established and the Ministry of Higher Education, which was independent of the Ministry of Education, became the main authority in charge of higher education. Along with the turnaround in the national economy and the development of various social undertakings, China’s higher education

³⁹³ Dong, L. (2019, September 22). *新中国70年高等教育改革发展历程* [Seven decades of China’s Higher Education Reform and Development]. China Education News.

³⁹⁴ Yang, Y. (2019, December 31) *中国教育发展70年回溯与展望* [Retrospect and Prospect of China’s Education Development in the Past 70 Years]. Guangming Web.

³⁹⁵ Dong, L. (2019, September 22). *新中国70年高等教育改革发展历程* [Seven decades of China’s Higher Education Reform and Development]. China Education News.

³⁹⁶ Yang, Y. (2019, December 31) *中国教育发展70年回溯与展望* [Retrospect and Prospect of China’s Education Development in the Past 70 Years]. Guangming Web.

was moving on track.

- 1966 -1976 Culture Revolution Phase

During the decade of the Cultural Revolution, the unified admission system of higher education established after the birth of the Republic was completely negated. The National College Entrance Examination was cancelled at the beginning of the Cultural Revolution in 1966, and it was not until 1970 that colleges and universities restarted recruitment. Youth from the families of workers, peasants and soldiers were favoured as students were selected not for their academic qualification but rather for their parents' class background.³⁹⁷ This group was later referred to as "Worker-Peasant-Soldier student". As a result of the abolition of the entrance examination, the literacy levels of the students varied vastly.

The entire society lacked the motivation to learn, and there was a serious knowledge and talent gap in the development of the country. In 1977, the year the Gang of Four collapsed a month after the death of Mao Zedong, Deng Xiaoping came back and pointed out that "Comparing to developed countries, China was 20 years behind in science, technology and education as there were 1.2 million intellectual and scientific researchers in the United States, and 900,000 in the Soviet Union, while China has merely 200,000 or so, including the old, the sick and disabled."³⁹⁸

- 1977 – 1998 The Revitalization Phase

In October 1977, Deng Xiaoping reinstated the National College Entrance Examination, which has been interrupted for a decade and ended the Worker-Peasant-Soldier programme. Students are selected through unified examinations and merit-based admissions. This year, 5.7 million people of all ages and backgrounds took the examination, with 279,971 eventually realising their college dreams, an admission rate of 4.8%. This is the lowest admission rate in the history of China's National College Entrance Examination.³⁹⁹ The resumption of the College Entrance Examination opened the curtain of China's educational reform and signalled the beginning of the restoration of national education orders throughout the country. Starting from 1st January 1981, the global common schooling years in higher education was applied according to the

³⁹⁷ Li, Kwok-sing (1995). *A Glossary of Political Terms of the People's Republic of China*. Translated by Mary Lok. The Chinese University of Hong Kong Press. ISBN 9622016154. pp. 124–25.

³⁹⁸ Deng, X. (1993). *Selected Works of Deng Xiaoping*, Band 2. People's Press. p40.

³⁹⁹ Liu, H. (2007) 1977 年高考：一次空前的招生考试 [*Gaokao in 1977: An Unprecedented One in the History of College Entrance Examination in China*]. *Research in Educational Development*, 2007(Z1), 7-8A.

Regulations of the People's Republic of China on Academic Degrees released on 2nd December 1980.⁴⁰⁰

In September 1983, Deng Xiaoping wrote an inscription for Beijing Jingshan School, a school for primary and secondary education: “Orient education towards modernization, globalization and future construction”, which later became the guideline for national education, putting forward the goal of China’s Education Modernization.⁴⁰¹ Since then, education modernization has been the theme of China’s education reform and development, guaranteeing the human resources and intellectual support for the modernization of industry, agriculture, national defence, and science and technology.

The promulgation of the *Decision of the Central Committee of the Communist Party of China on the Reform of the Education System* in 1985 started the process of the comprehensive reform of the higher education system. The main changes are:

1). Change the way that all higher education institutions recruit students according to the national plan and the way all graduates are assigned by the state, instead, national enrolment plan, entrusted enrolment by employers and enrolment of a small number of self-financed students outside the national plan would be applied together.

2). Expand the right of higher education institutions to run schools independently. Subject to the implementation of national policies, decrees and plans, higher education institutions shall have the right to train entrusted students and recruit self-financing students outside the national plan; they shall have the right to adjust the serving direction of subjects, to formulate teaching plans and syllabuses and to draft and select teaching materials; they shall have the right to accept commissions or cooperate with other units to conduct scientific research and technological development, as well as to build teaching, research and production consortia, etc.

3). A system of running higher education institutions at three levels: national, provincial and municipal. Central cities began to hold municipal colleges and universities, private higher education started to emerge, and some institutions tried “multi-investment and joint management” style. Colleges and universities applied a new enrolment plan system which combines the directive plan and regulatory plan on a trial basis, and charged tuition fees for self-financing students. And a two-way selection employment, which

⁴⁰⁰ Standing Committee of the National People's Congress. (1980). *Regulations of the People's Republic of China on Academic Degrees*. Order No. 4 of the fifth Standing Committee of the National People's Congress.

⁴⁰¹ Deng, X. (1993b). *Selected Works of Deng Xiaoping*, Band 3. People’s Press. p.35.

enables graduates to choose their own jobs and employers to hire employees on the basis of merit, was basically established.⁴⁰²

In February 1993, the *Outline of China's Education Reform and Development* clearly stated the need to change the pattern of government-run schools and gradually establish a system of running colleges and universities with governments as the mainstay, all sectors of society participating, governments' direct administrative management of colleges and universities seeing a reduction and the setting up of a multi-source education funding pattern based on national financial appropriation.⁴⁰³

On 19th July 1995, *Several Opinions on Deepening the Reform of Higher Education System* was issued with the objective to develop a higher education system in which central and provincial governments take charge of the development of higher education, with provincial governments assuming the major role. By the end of the 20th century, the two-tiered management system was basically formed. The central government takes charge of macro-administration and key policies, directly administers around 100 universities, provincial governments respectively in charge of the coordinated development of higher education, and administers other universities.⁴⁰⁴

In order to meet the world's new technological revolution and the increasingly fierce international competition, the Project 211, with the purpose of building 100 or so key higher education institutions and several key disciplines for the 21st century, was launched in the November of 1995. Three years later, the Project 985, which aims to promote Chinese higher education by developing world-class universities, was pioneered by then-President Jiang Zemin in 1998 and was officially initiated in 1999 with the *Action Plan for Education Rejuvenation for the 21st Century*.

- 1999 – Present High-Speed Development Phase

Until 1997, China's gross enrolment rate in higher education was only around 5%, the proportion of 18-22-year olds attending university was 4% according to the UN statistics, much lower than that of countries at the same level of development. At that time, the ratio of teachers to students in Chinese universities was 1 to 7, which means the universities' educational resources were not being fully nor effectively utilised. In

⁴⁰² Xia, L. (2018, December 29) 我国高等教育体制改革 40 年回顾与展望 [Review and Prospects of the Reform of China's Higher Education System in the past 40 years]. China Development Observation.

⁴⁰³ CPC Central Committee & State Council, PRC. (1993). 中国教育改革和发展纲要 [Outline of the China's Education Reform and Development].

⁴⁰⁴ Refer to the MOE Press Conference in May 2006. Ministry of Education of the People's Republic of China.

November 1998, the economist Tang Min submitted to the central government a proposal for the expansion of university enrolment – *On an Effective Way to Kick-Start China's Economy – Doubling the Enrolment*. The recommendation was adopted, and in the next June, an expansion plan with the goal of “boosting domestic demand, stimulating consumption, promoting economic growth and easing the pressure on employment” was formulated by the central government.⁴⁰⁵ Since then, higher education began to be mass education in China. The number of university students has nearly tripled in five years, from 642,199,000 in 1998 to 1,847,127,000 in 2003, making China the country with the largest number of university students in the world, and the gross enrolment rate in higher education reached 17%.⁴⁰⁶

At the beginning of the 21st century, the initial expansion of higher education institutions, the problem of higher education quality gradually came to the fore due to insufficient investment in funding and teaching teams. Quality improvement became an important construction objective. In 2000, the Chinese Ministry of Education launched the Higher Education Teaching Reform Project for the New Century.⁴⁰⁷ In 2004, the State Council issued the *Action Plan for the Revitalization of Education 2003-2007*, proposing the implementation of the Teaching Quality and Teaching Reform Project for higher education, and the nation started to optimize the regional structure of higher education and to appropriately control the growth rate of enrolment.⁴⁰⁸ The primary demand for higher education shifted from quantity to quality.

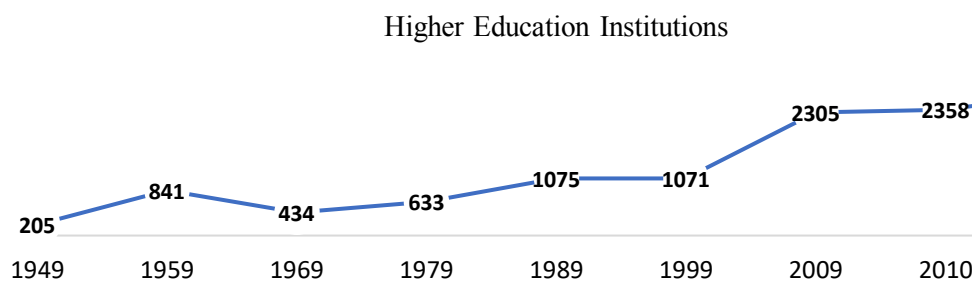


Figure 14 Number of the Institutions of Higher Education in China (1949 – 2010)

⁴⁰⁵ Xia, F. (2017). 1999: 大众教育代替精英教育 [1999: Mass Education instead of Elite Education]. Times Report. 6, p.22-25.

⁴⁰⁶ Pan, M. (2004). 中国当前高等教育发展中的若干问题 [Some Issues in China's Higher Education Development]. Education Science. 2004(4)/88, p.1-5.

⁴⁰⁷ Dong, L. (2019, September 22). 新中国 70 年高等教育改革发展历程 [Seven decades of China's Higher Education Reform and Development]. China Education News.

⁴⁰⁸ Xu, Q. (2004, March 24). 全面实施《2003-2007 年教育振兴行动计划》 [Full implementation of the Action Plan for the Revitalisation of Education 2003-2007]. The State Council Information Office of the People's Republic of China.

Meanwhile, during this period, the vocational education system at the higher education level and the legal system for private higher education institutions were set up, a series of policies aimed at accelerating the development of higher education in the western region were introduced, and a mechanism for the synergistic development of regional higher education was developed.⁴⁰⁹

5.2.1.3 The National Key University Projects

The construction of high-level universities in China began with the key universities policy in the 1950s and 1960s. In 1950, the National Higher Education Conference put forward the policy of reorganizing universities and forming key systems.⁴¹⁰ In October 1954, The *Resolution on the scope of Work of Key Universities and Experts* issued by the Ministry of Higher Education clearly stated the main tasks of key universities and the selection conditions and principles. By 1964, the basic pattern of China's key universities was formed as 68 national key universities were identified and relevant management regulations were promulgated.⁴¹¹

The construction was interrupted by the Culture Revolution but was resumed after that. On July 29, 1977, Deng Xiaoping proposed: "We should develop a number of key universities, which are both centres for education and scientific research."⁴¹² In the next year, 88 key national universities including Tsinghua University and Peking University were redefined.⁴¹³ Facing the needs of scientific and technological revolution and meeting the challenges of international competition, the CPC Central Committee has, since 1995, successively defined national strategies such as reinvigorating China through science and education and strengthening the country with talents, and clarified the fundamental, pioneering and overall role of education in the modernization drive.⁴¹⁴

The Project 211 and Project 985 implemented during the "Ninth Five-Year Plan" (1996-2000) are the largest key construction projects officially approved by the state in

⁴⁰⁹ Xia, L. (2018, December 29) 我国高等教育体制改革40年回顾与展望. [Review and Prospects of the Reform of China's Higher Education System in the past 40 years]. China Development Observation.

⁴¹⁰ Ma, L. (2019). 高等教育重点建设的历史使命与巨大成就. [The Historical Mission and Great Achievement of National Key University Projects]. China Higher Education, 17, p.4

⁴¹¹ China Education Yearbook Editorial Department (1984). 中国教育年鉴(1949-1981) [China Education Yearbook (1949-1981)]. Beijing: Encyclopaedia of China Publishing House, p330-332.

⁴¹² Party Literature Research Center of the CPC Central Committee (1998). 邓小平思想年谱(1975-1997). [Chronicle of Deng Xiaoping Thought 1975-1997]. Beijing: Central Party Literature Press, p.30.

⁴¹³ MOE, PRC. (1982). 高等教育文件选编1977.11-1982.6. [Selected Documents in Higher Education 1977.11-1982.6]. Higher Education Press, 6-9.

⁴¹⁴ Ma, L. (2019). 高等教育重点建设的历史使命与巨大成就. [The Historical Mission and Great Achievement of National Key University Projects]. China Higher Education, 2019(17), p.5.

the field of higher education, and are major initiatives in the strategy of reinvigorating China through science and education. Launched in 1995 by the MOE of China, coming from the slogan “In preparation of the 21st century, successfully run 100 colleges and universities (面向21世纪, 办好100所高校), Project 211 refers to the construction of 100 or so key higher education institutions and a number of key disciplines for the 21st century,⁴¹⁵ and it is a systemic reform project of China’s higher education. Project 985 was first announced by then-President Jiang Zemin at the 100th anniversary of Peking University on May 4, 1998: “To achieve modernization, China needs to develop a number of world-leading universities.” In the next year, named by the date of its announcement, Project 985 (May 1998) was officially initiated when the *Action Plan for Education Rejuvenation of the 21st century* was approved by the State Council.

The two projects adopted the approach of raising funds jointly through the state, departments, localities and higher education institutions to improve and enhance the quality of education, scientific research and operational efficiency of higher education institutions based on the construction of key universities and key disciplines, with the aim of building a number of world-class universities and a number of internationally renowned high-level universities and enhancing the international competitiveness of higher education in China. By 2011, there were 112 higher education institutions designated as Project 211, and 39 as Project 985. Since then, no new names have been added to the list.⁴¹⁶

As China’s high-level universities are dominated by the governments, the country’s educational policy and the allocation of resources directly affect universities’ educational objectives and development. Being a university of Project 211 or Project 985 means more educational resources and higher social awareness, which helps to improve the overall running conditions, to promote the construction of key disciplines, to build a better higher education information service system, and to attract and recruit better staff and students. These, however, has had a huge impact on non-211Project institutions, creating new problems in terms of fair competition in education, efficiency in the use of educational resources and social impact.

The Project 211 (112) and 985 (39) institutions account for approximately 4.17%

⁴¹⁵ MOE, PRC. (2015). “211 工程”大事记.[*A Chronology of Project 211*]. Ministry of Education of the People’s Republic of China.

⁴¹⁶ MOE, PRC. (2015). “211 工程”与“985 工程”. [*Project 211 and 985*]. Ministry of Education of the People’s Republic of China.

and 1.45% of the current 2688 higher education institutions⁴¹⁷, which means the majority have failed to be on the list. As Education policies, resources distribution and even social evaluation all favour key universities, ordinary institutions face development difficulties in terms of school positioning, running conditions enrolment and employment. For example, in 2013, Tsinghua University spent ¥ 3.931 billion on scientific research, of which ¥ 2.775 billion or 70.6% was financially allocated, while Southwest Petroleum University, the non-211 Project institution that spent the most on scientific research (¥ 460 million), received only ca. ¥ 120 million financial support, accounting for 26.1% of its total research expense. The financial support for scientific research differs by more than 23 times.⁴¹⁸

Table 16 Distribution of Project 211/985 & Local Population Size

Province	Population (By 2010) ⁴¹⁹	Project 211	Project 985
Beijing	19,612,368	26	8
Jiangsu	78,660,941	11	2
Shanghai	23,019,196	10	4
Shaanxi	37,327,379	8	3
Hubei	57,237,727	7	2
Sichuan	80,417,528	5	2
Heilongjiang	38,313,991	4	1
Hunan	65,700,762	4	3
Guangdong	104,320,459	4	2
Liaoning	43,746,323	4	2
Anhui	59,500,468	3	1
Jilin	27,452,815	3	1
Shandong	95,792,719	3	2
Tianjin	12,938,693	3	2
Chongqing	28,846,170	2	1
Fujian	36,894,217	2	1
Xinjiang	21,815,815	2	
Gansu	25,575,263	1	1

⁴¹⁷ Referring to the National Bureau of Statistics – University Statistics (2020).

⁴¹⁸ Zheng, T., & Yuan, R. (2014, November 18). 科研经费拨款相差超 20 倍“211、985”的“金帽子”有多重 [What does 211 or 985 mean - over 20 times scientific research funding than an ordinary one]? Xinhuanet.

⁴¹⁹ Department of Population and Employment Statistics National Bureau of Statistics of China (2012). 2010 年中国人口普查资料 [Tabulation on the 2010 Population Census of the People's Republic of China]. China Statistics Press.

Guangxi	46,023,761	1	
Guizhou	34,748,556	1	
Hainan	8,671,485	1	
Henan	94,029,939	1	
Inner Mongolia	24,706,291	1	
Jiangxi	44,567,797	1	
Ningxia	6,301,350	1	
Qinghai	5,626,723	1	
Shanxi	35,712,101	1	
Tibet	3,002,165	1	
Yunnan	45,966,766	1	
Zhejiang	54,426,891	1	1

Furthermore, Project 211 institutions are mainly located in economically developed regions and capital cities, resulting in a serious imbalance in the regional distribution of high-quality higher education resources and exacerbating the existing gap between higher education in the east and west.

For a better understanding, we need to first introduce the Chinese college entrance examination and the college entrance examination admission system. It is well known that National Higher Education Entrance Examination or GaoKao is the most important way for the majority of Chinese students to enter universities. Yes, it is not the only way to gain access to the general universities, recommended admission and independent recruitment are the other two common routes to universities for the overall-excellent students. Although these students need to undergo certain tests and register for GaoKao, taking the examination is not a must. Higher education institutions may admit up to 3% (10% for Normal institutions) of their total annual intake by recommended admission,⁴²⁰ and no more than 5% by independent recruitment.⁴²¹ This means that only a small number of talented students can skip GaoKao, the majority still have to cross the single-log bridge

⁴²⁰ MOE, PRC. (1988). *普通高等学校招收保送生的暂行规定*[*Provisional Regulations on Recommended Admission to General Higher Education Institutions*]. Ministry of Education of the People's Republic of China. Although the regulations were superseded by other provisions from 20th September, 2004, it is a minority of students who can get recommendation for guaranteed admission.

⁴²¹ Refer to the Guiding Opinions on Further Deepening the Pilot Work of Independent Recruitment in Universities. In 2008, the Ministry of Education stipulated that universities are not subject to the 5% limitation as long as they can get enough qualified students. Since 2020, Independent Recruitment was replaced by the Plan for Strengthening Basic Academic Disciplines, which aims to recruit students who are interested in serving the country's major strategic needs and at the same time have excellent comprehensive qualities or excel in basic discipline studies.

to get into universities.

China's College admissions apply a provincial quota system which means colleges and universities allocate enrolment targets to provinces (regions or municipalities) in accordance with national policies, social demands and school running conditions. It is a systemic and institutional arrangement with an important function of regulating the national talent structure and training total, determining the college enrolment rate in various provinces (regions or municipalities) and the intensity of competition for candidates. Since 1950, the central government began to centralize the quotas for college enrolment, and by 1959 a provincial quota system was formed: the enrolment of national universities in each province (region or municipality), the enrolment adjustments between provinces (regions or municipalities) with a large number of candidates and those with insufficient candidates should be determined by the Ministry of Education in consultation with the provinces (regions or municipalities) and the schools concerned. Minor adjustments in enrolment between provinces (regions or municipalities) should be subject to their own agreement.⁴²² In order to safeguard educational justice and ensure fairness in enrolment, the Ministry of Education successively issued an *Outline of China's Education Reform and Development* and *Pilot Opinions on Further Reforming the Enrolment and Graduate Employment System of General Higher Education Institutions*, stipulating that higher education institutions may adjust the scale of enrolment on their own according to social demand and running conditions while the state regulates the total scale of enrolment and curriculums.⁴²³ After years of practice and development, by 2010, the current provincial quota system was basically formed – a complete national macro-enrolment regulation, combined with independent enrolment plans of colleges and universities formulated in accordance with the needs of economic and social development, the analysis and forecasting of the market demands, as well as their own schooling conditions and graduates employment.⁴²⁴

Since universities have the right to set their own allocation of places under the condition of the national enrolment control, the autonomy to set quotas can be problematic when universities are influenced by other factors that intervene or interfere. A common

⁴²² Yang X. ed. (2003). *高考文献·上 (1949~1976)* [*Documents of College Entrance Examination 1 (1949~1976)*]. Beijing: Higher Education Press. p. 343 – 344.

⁴²³ Yang X. (2003). *高考文献·下 (1949~1976)* [*Documents of College Entrance Examination 2 (1977~1999)*]. Beijing: Higher Education Press. p. 524 – 528.

⁴²⁴ MOE, PRC. (2010). *2010年普通高等学校招生工作规定* [*Regulations on Admission to Higher Education Institutions 2010*]. Ministry of Education of the People's Republic of China. Article 27-35.

problem is the regional protectionism of college admissions. Because of the two-tiered management system, on the one hand, higher education institutions play the role of think tanks supporting the development of local economies and societies, on the other hand, local governments and enterprises are important drivers for the development of the institutions.

As higher education becomes a kind of mass education, the essence of competition for higher education is the competition for high-quality higher educational resources. In 2003, the enrolment rate of higher education in Beijing was 49% (52% in 2004), while the gross enrolment rate in Yunnan Province was only 8.64%.⁴²⁵ The long-established logic and practice of localized enrolment in college admissions, the provincial quota system and the uneven regional distribution of the Projects 211 and 985 universities have made regional disparities in access to higher education increasingly prominent. Presently, the allocation is mainly determined by the governments, rather than based on the number of students in each region. Institutions allocated certain enrolment volumes to provinces and regions in accordance with the national requirements, while others are mainly allocated to their own regions due to the influence of local governments, resulting in the localization of higher education recruitment. The percentages of local students in each university in 2013 were:⁴²⁶

Peking University	17%
Tsinghua University	16%
Fudan University	44%
Shanghai Jiao Tong University	47%
Wuhan University	50%
NanJing University	55%
Zhejiang University	61%

According to Li Guangyu, a deputy to the National People’s Congress, it was 24 times harder for Henan candidate to get into Peking University than for Beijing students in 2008, as Peking university allocate 79 places for 988,000 Henan candidates and 282 places for 118,000 Beijing candidates.⁴²⁷ And another study shows that in 2009, the

⁴²⁵ L, Z. (2006, March 12). *两会热点聚焦：从“高考移民”到教育公平* [Focus of the Two Sessions: From “Gaokao immigration” to “Educational Equity”]. Sina news

⁴²⁶ L, Z. (2006, March 12), *ibidem*.

⁴²⁷ Alumni – Tsinghua University. (2015, March 6). *李光宇代表：北京高考名校录取率比河南高 31 倍* [Representative Li Guangyu: Beijing's admission rate to prestigious schools is 31 times higher than Henan's]. In 2013, the gap widened further to 31 times.

national average enrolment index of Peking University is 2.2 per 10,000 candidates, while the provincial allocation for 10,000 candidates in each province was:

Beijing	66.8
Tianjin	10.2
Shanghai	4.8
Shandong	1.1
Henan	1
Guangdong	0.68
Anhui	0.65. ⁴²⁸

Obviously, candidates from Guangdong and Anhui found it 100 times harder than their Beijing peers to get a chance to study at Peking University. This is not an isolated case, as in the same year, with the same national average index, Fudan university had a much greater geographical variation in admission. In 2009, for 10,000 candidates from various provinces, their chances of getting into Fudan University were: 117.1 study places for Shanghai, 5.2 for Zhejiang, 4.2 for Beijing, and less than 1 place for 10 provinces including Shandong, Shanxi, Guangdong, Hebei, Henan and Inner Mongolia. That made Shanghai candidates 53 times more likely to get into Fudan University than the national average, 150 times more than Shandong students, 274 times more than Henan peers, and 288 times more than competitors from Inner Mongolia.

Although the implementation of Project 211 and Project 985 has generated some negative effects and problems, the positive effect is more significant. Over the past two decades, the overall strength of China's higher education has been greatly enhanced, and there is a definite improvement in the scientific innovation capacity and international academic influence of certain Chinese universities. A number of key universities with notable progress in teaching standards and research capabilities are playing a prominent role in talent training, scientific research and social services. The remarkable increase appears not only in training high-level personnel and accepting international students, but also in the number of undertaking major national research projects and receiving high-level research awards. The academic and scientific gap between top Chinese universities and world-class universities is narrowing.

One strong testament to this is the birth of the Academic Ranking of World

⁴²⁸ Zhang, Q. & Qu, X. (2011). *大学招生与宪法平等：国际经验与中国问题* [University Admissions and Constitutional Equality: International Experience and Chinese Issues]. Nanjing: Yilin Press, p.1.

Universities (hereinafter as ARWU) and its worldwide recognition. ARWU, a world university ranking originally issued in 2003 by Shanghai Jiao Tong University (Project 211& 985) to analyse the position of top Chinese universities in the global education system⁴²⁹, is the world's first university ranking with multifarious indicators⁴³⁰ and has attracted widespread attention and discussion in the academic community. It is considered as one of the three most influential and widely observed university rankings, alongside QS World University Rankings and Times Higher Education World University Rankings.

Another convincing piece of evidence is the rise in the global standing of a batch of leading Chinese universities over the past years. According to ARWU, in 2013, 9 universities from Mainland China were ranked in the global top 500. Tsinghua University was within the top 250, and the remaining 8 were all outside. In 2010, 13 more Chinese universities (Mainland), entered the world's top 500, bringing the total of Chinese universities to 22, of which 2 were ranked within 101-200, 4 ranked between 201-300, and 12 of the remaining universities were outside the top 400.⁴³¹ Table 17 includes the 2020 ranking to show the continuity of the development.

Table 17 Chinese Universities in the Academic Ranking of World University (2003, 2010 & 2020)

Institution	2003	2010	2020
Tsinghua University	222	178	29
Peking University	264	167	49
Fudan University	311	210	100
Nanjing University	318	220	116
University of Science and Technology of China	343	285	73
Zhejiang University	400	300	58
Shanghai Jiao Tong University	422	233	63
Jilin University	462	425	157
Shandong University	475	342	163
Sichuan University		343	164
Sun Yat-sen University		347	124
China Agricultural University		410	307
Dalian University of Technology		413	212
Harbin Institute of Technology		420	109

⁴²⁹ ShanghaiRanking Consultancy (2021d). *About Academic Ranking of World Universities*. Shanghai Ranking.

⁴³⁰ Pavel, A. (2015). *Global university rankings - a comparative analysis*. *Procedia Economics and Finance*. 26: 54–63.

⁴³¹ According the latest ARWU, in 2020, of the top 1000 universities in the world, 151 are Chinese universities, 75 of which are ranked within the top 500. 6 of the top 100 universities are from Mainland China, with Tsinghua University (29) and Peking University (49) among the world's top 50.

Huazhong University of Science and Technology	421	110
Lanzhou University	431	431
Nankai University	437	231
Southeast University	448	123
Tianjin University	454	174
Wuhan University	496	200
Xiamen University	497	298
Xi'an Jiaotong University	498	150
Central South University		105
Beihang University		152
Soochow University (China)		165
South China University of Technology		166
University of Electronic Science and Technology of China		181
Beijing Institute of Technology		202
Beijing Normal University		203
Hunan University		220
Northwestern Polytechnical University		237
Shenzhen University		245
Tongji University		253
University of Science and Technology Beijing		283
Beijing University of Chemical Technology		303
Capital Medical University		305
China University of Geosciences (Wuhan)		308
East China University of Science and Technology		311
Huazhong Agricultural University		315
Jiangsu University		319
Nanjing Agricultural University		330
Nanjing University of Aeronautics and Astronautics		331
Nanjing University of Science and Technology		332
Northeastern University (Shenyang)		335
Peking Union Medical College		336
Shanghai University		343
Southern University of Science and Technology		345
Wuhan University of Technology		399
Zhengzhou University		400
Beijing Jiaotong University		403
Beijing University of Technology		404
China University of Geosciences (Beijing)		409
China University of Mining and Technology - Xuzhou		410
East China Normal University		412

Fuzhou University	419
Guangdong University of Technology	421
Harbin Engineering University	423
Hefei University of Technology	424
Jinan University	427
Nanchang University	435
Nanjing Medical University	436
NanJing Tech University	437
Nanjing University of Information Science & Technology	438
Ocean University of China	441
Qingdao University	444
Shandong University of Science and Technology	450
ShanghaiTech University	451
South China Agricultural University	452
Southwest University	453
Xidian University	499

5.2.1.4 Cost of Studying at a University in China

The Evolution of Fees in Higher Education

Since the country came into being, China's higher education fee system has roughly gone through three phases.⁴³²

The first phase: Free higher education (1949 -1979)

Before the reform and opening up, higher education was basically free of tuition, and students received certain accommodation, transportation and living allowances. During this period, China practised a planned economy under the influence of the Soviet Union, and its higher education was modelled on Soviet education, with a centralized allocation system of “free enrolment, Unified assignment and guaranteed employment”. In addition to free enrolment, students from economically disadvantaged families could apply for scholarships. At a time when the country's financial resources were weak and compulsory education was not yet universal, extra priority was given to higher education in the hope that more builders and successors could be trained for socialist construction

⁴³² The following report is based on Lan, X. (2012) *中国高等教育收费制度百年变迁轨迹及特征* [The Trajectory and Characteristics of China's Higher Education Tuition System in the Past Century]. Education and Vocation, 736: p.20-23.

Wang, K. (2001). *高校收费政策的理论与实践* [Theory and Practice of Charing Policy in Higher Education]. Xiamen, Xiamen University Press.

Lu, G., & Zhong, P. (2002). *高等教育成本回收的理论与实证分析* [Theoretical and Empirical Analysis of Cost Recovery in Higher Education]. Beijing: Beijing Normal University.

as soon as possible. At this time, higher education was mainly for children of workers and peasants, and was an elite education with a low gross enrolment rate.

The second phase: Transition from free to fee-based education (1979-1996)

Since the 1980s, the scale of higher education in China has gradually expanded. After the enactment of the *Scheme for Higher Education Institutions to Accept Commissioned Students*, in addition to the publicly-funded and targeted-area students enrolled within the national plan, universities began to recruit purely self-funded and appointed students, who pay part of the training fee themselves or by the commissioning unit and attend school on a day-to-day basis without being allocated by the state.

In 1985, the *Decision of the Central Committee of the Communist Party of China on the Reform of the Education System* affirmed the mode of training of self-financing students and students under commission in colleges and universities, specifying that colleges and universities may accept a small number of self-financing students outside the plan, and the students should pay a certain amount of training fees.

In 1989, the State Education Commission, the Price Bureau and the Ministry of Finance jointly issued a document entitled *Regulations on the Collection of Tuition and Accommodation Fees for Ordinary Colleges and Universities*, announcing that students enrolled under the state plan (except teacher training students) shall be charged tuition and accommodation fees, and most colleges and universities nationwide began to charge yearly tuition fees of RMB 100 to 300 since that year.⁴³³

In 1990, the former State Education Commission, together with relevant ministries and commissions, issued the *Provisional Regulations on the Admission of Self-financing Students to Ordinary Colleges and Universities*, which incorporated self-financing students into the national plan and strictly controlled the number of students enrolled.

In June 1992, the State Education Commission and relevant departments issued the *Notice on Further Improving the Charging System of Regular Higher Education Institutions*, stating that “China has a vast territory and the economic development of various regions is very uneven. Can’t adapt to the new situation of reform and opening up”. So higher education across the country began to implement the reform of the enrolment fee system on a large scale, and the proportion of tuition and miscellaneous fees in the cost of higher education rose significantly, from 4.43% in 1992 to 12.12% in

⁴³³ Lan, X. (2012), *ibidem*.

1993.

On 13 February 1993, the Central Committee of the Communist Party of China and the State Council issued the *Outline for the Reform and Development of Education in China*, which clearly states that “the practice of students being paid by the state to attend university should be reformed and a fee system should be gradually introduced. Higher education is not compulsory, and students should, in principle, pay fees to attend university.

This act slowly brought the dual-track system to an end and fee-funded studies at universities began throughout China.

In 1996, the *Interim Measures for the Administration of Higher Education Fees* stated that the annual tuition fees charged to students as a percentage of the annual average cost of training must be adjusted in accordance with the economic development and the affordability of the public in phases.

On July 1, 1996, the State Education Commission, the State Planning Commission and the Ministry of Finance issued the *Notice on Issues Relating to the Collection of Tuition Fees by Ordinary Colleges and Universities* in 1996, which clearly regulated the policy of merging the enrolment fees of colleges and universities, and the higher education fees became a common act for the majority of students.

The third Phase: Full charging higher education (after 1997)

By 1997, all colleges and universities nationwide had basically completed the reform of enrolment and student fee payment for schooling, and the cost recovery system was fully implemented in colleges and universities nationwide. In 1999, the *Decision on Deepening Education Reform and Comprehensively Implementing Quality Education* further proposed to appropriately increase the proportion of tuition fees in the cost of training, while stipulating that the maximum tuition fees charged by colleges and universities should not exceed 25% of the average cost of training per student.

Cost for the students

As mentioned above, in the decades from the founding of the People’s Republic of China to 1988, higher education in China was a free lunch. It was not until 1989 that the state introduced fees for higher education, which were in fact only a token of 100-300 RMB at the time.

Table 18 Higher Education Tuition (1993 -2004)⁴³⁴

Year	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
Average Tuition per student (RMB)	610	889	1114	1319	1620	1974	2769	3550	3895	4224	4419	4785
Annual increase		15.7%	25.3%	18.4%	22.8%	21.9%	40.3%	28.2%	9.7%	8.4%	4.6%	8.3%

Since then, the cost of college study increased rapidly each year. Table 18 shows the changes in higher education tuition from 1993-2004. In response to this, the Ministry of Education issued the *Circular on several opinions on Enrolment and Charges of Higher Education Institutions in 2000* (hereinafter Circular) to limit the increase of tuition fees. The Circular stipulated that tuition fees of higher education institutions should be limited to one-quarter of their annual daily operating expenses per student, those that do not meet this standard can be increased to 25%. Tuition fees for arts, vocational training can be slightly higher than this standard. Tuition fees may vary according to the areas and levels of schools and majors. The accommodation fee should be kept between 800RMB to 1200 RMB, and it can be lower in some less economically developed areas.⁴³⁵ The tuition and accommodation fees of the universities have since remained largely stable as in year 2000.

Table 19 Cost of Bachelor Study in China Per Semester (2010)

Province	University	Major	Tuition (RMB)	Accommodation (RMB)
Beijing	Tsinghua University ⁴³⁶	Arts	≤10000	750 - 1200
		Language & Medicine	≤6000	
		STEM	≤5500	
		Others	≤5000	
Peking University ⁴³⁷	Peking University ⁴³⁷	Arts	≤10000	≤1200
		Medicine	6000	

⁴³⁴ Zhao, J. & Song, S. (2008). 我国高等学校学费标准与居民收入水平、GDP 的增长分析 [An Analysis of the Relationship between Tuition Fee in Higher Education and the Income of Residents or the Increase of GDP per Person in China]. *Journal of Liaoning Normal University (Social Science Edition)*. 31(3), p59-61.

⁴³⁵ MOE, PRC. (2002). 关于 2000 年高等学校招生收费工作若干意见的通知 [Notice on Several Opinions on Enrolment and Charges of Higher Education Institutions in 2000]. Ministry of Education of the People's Republic of China.

⁴³⁶ Tsinghua University, ed. (2018). 清华大学教育收费公示 [Tsinghua University Education Fees Announcement].

⁴³⁷ Peking University, ed. (2010). 北京大学教育收费公示 [Peking University Education Fees Announcement].

		Yuanpei College, School of Life Science & School of electronics engineering and Computer Science	≤5300	
		Others	5000	
	China University of Political Science and Law ⁴³⁸	English & German Language	6000	650 - 900
		Others	5000	
Shanghai	Fudan University ⁴³⁹	Arts	10000	1200 - 1500
		Medicine	6500	
		Special majors	5500	
		Others	5000	
	Shanghai University ⁴⁴⁰	Arts	≤10000	600-1600
		Special majors	≤6500	
		Others	≤5000	
Tianjin	Tianjin University ⁴⁴¹	Software Engineering	9500	
		Animation	10000	
		Arts & Design	8000	
		Others	≤5000	
Henan	Zhengzhou University ⁴⁴²	Arts	5700	400-1100
		Medicine	4500	
		STEM & Sports	3700	
		Others	3400	
Hubei	Hubei University ⁴⁴³	Arts	10350	
		Others	≤5850	
Jilin	Jilin University ⁴⁴⁴	Media & Advertising	≤13000	
		Arts	12000	

⁴³⁸ China University of Political Science and Law (2010). *中国政法大学2010年本科招生章程*[2010 Undergraduate Admissions Regulations of China University of Political Science and Law].

⁴³⁹ Fudan University (2019). *2019年秋季复旦大学教育收费公示表—本科生* [Fudan University Education Fees Announcement in Fall 2019—Undergraduate].

⁴⁴⁰ Shanghai University (2018). *关于我校学费收取和结算的说明*[Instructions on the charging and settlement of tuition fees].

⁴⁴¹ Tianjin University (2010). *天津大学2010全日制本科招生章程*[2010 Undergraduate Admissions Regulations of Tianjin University].

⁴⁴² The Admissions of Zhengzhou University (2010, May 4). *郑州大学2010年招生章程* [2010 Undergraduate Admissions Regulations of Zhengzhou University].

⁴⁴³ Hubei University (2010, April 18). *湖北大学2010年全日制普通本、专科生招生计划表*[Hubei University's Enrolment Plan for Full-time Undergraduate and Junior College Student in 2010].

⁴⁴⁴ Jilin University (2010). *吉林大学2010年本科新生入学须知* [Information for Freshmen of Jilin University 2010].

		Software Engineering	9350	
		Medicine	5000	
		Language	4900	
		Others	≤4700	
Jiangsu	Nanjing University ⁴⁴⁵	Software Engineering	10300	1200
		Literature of Theatre Film & Television	6800	
		Others	4600	
Zhejiang	Zhejiang University ⁴⁴⁶	Software Engineering	6200	1200
		Arts	7000	
		Agriculture	4000	
		Others	4800	
Hainan	Hainan University ⁴⁴⁷	Arts	8800	600-1200
		Tourism	6600	
		Others	≤4600	
Guangdong	South China University of Technology ⁴⁴⁸	Arts	10000	500-1500
		STEM, Language, Sports	5160	
		Humanities, economics & Management	4560	
Fujian	Xiamen University ⁴⁴⁹	Software	10730	1200
		Arts	9360	
		Medicine & Aeronautics and Astronautics	6760	
		Others	5460	
Shandong	Ocean University of China ⁴⁵⁰	Music & Performance	6700	
		Language & Sports	5000	
		Medicine	4700	
		STEM & Agriculture	4300	
		Others	4000	
Shaanxi	Xi'an Jiaotong	Arts	9900	800-1200

⁴⁴⁵ Nanjing University (2010, April 16). *南京大学 2010 普通本科生招生简章*[2010 Undergraduate Admissions Regulations of Nanjing University].

⁴⁴⁶ Zhejiang University (2010 May, 24). *浙江大学本科生学分制收费管理办法*[Administrative Measures for Undergraduate Credit System Charges of Zhejiang University].

⁴⁴⁷ Hainan University (2010, April 12). *海南大学 2010 年全日制本科招生章程* [2010 Undergraduate Admissions Regulations of Hainan University].

⁴⁴⁸ South China University of Technology (2010). *华南理工大学 2010 年全日制本科招生章程* [2010 Undergraduate Admissions Regulations of South China University of Technology].

⁴⁴⁹ Xiamen University (2010). *厦门大学 2010 年全日制本科招生章程* [2010 Undergraduate Admissions Regulations of Xiamen University].

⁴⁵⁰ Ocean University of China (2010). *中国海洋大学 2010 年招生章程*[2010 Undergraduate Admissions Regulations of Ocean University of China].

	University ⁴⁵¹	Software	10100
		STEM Medicine & Language	≤5200
		Others	3850
Xinjiang	Xinjiang	Software Engineering	9000
	University ⁴⁵²	Arts	6000
		Language, Media & Law	3800
		STEM	3500
		Modern Textile Technology	3300
		Others	3100

When the first Chinese leading universities joined in the MOOC movement and launched their own online courses on major international and domestic MOOC platforms, China's education had made great progress after more than 60 years of development – Compulsory education has been popularized, the vast majority of young or middle-aged can read and write, higher education has moved from elite exclusivity to mass education, China's education is becoming increasingly international and its international reputation is steadily improving. However, many problems still lie ahead. Due to factors such as the preferential policies in the early stages and the uneven regional development, China's educational resources are distributed quite in an unbalanced manner, especially the allocation of high-quality educational resources. In addition to the fact that China's national key universities are mainly located in central cities and the relatively developed regions, enjoying preferential policy supports and financial allocation, a similar picture exists for the development and distribution of quality primary and secondary schools. The direct consequence of this unequal distribution of educational resources is unequal access to education. Students in central cities and developed areas naturally have better and more educational opportunities than those in remote areas. An underlying reason behind the great educational inequality is that there are too few high-quality educational resources to meet the educational needs of the nation, and selective support is used to develop some districts first. Thus, there is a huge difference among schools between districts.

⁴⁵¹ Xi'an Jiaotong University (2010). *西安交通大学2010年本科招生章程* [2010 Undergraduate Admissions Regulations of Xi'an Jiaotong University].

⁴⁵² Xinjiang University (2010). *新疆大学2010年普通本专科招生章程* [2010 Undergraduate Admissions Regulations of Xinjiang Jiaotong University].

5.2.1.5 Distance Education in China

MOOC is a new development in distance education, a product of the third generation of modern distance education based on information technology and network technology. To understand the development of MOOC in China, it is important to review the development of distance education in China. The development of distance education in China has gone through three generations:

1. Correspondence Education

In 1902, Cai Yuanpei and the progressives initiated and set up the China Education Association (中国教育会) in Shanghai, starting with the compilation of textbooks, followed by the application of the correspondence teaching method and the publication of a series of newspapers, correspondence education began to sprout in China.

In 1914, the Commercial Press founded the Correspondence School (函授学会), which was the first correspondence school in China.

Correspondence education was further developed after the founding of the People's Republic of China. In the late 1970s, the state opened correspondence education and evening college for adults in order to make up for the educational gap caused by the Cultural Revolution.

2. Radio and Television Education

Emerged in the 1980s, and mainly used radio, television, text and multimedia teaching materials to provide training. Radio and television education was developing very rapidly in China and was an important part of adult education and higher education in China. The China Central Radio and TV Virtual University founded in February 1979 is one of the largest distance learning systems in the world.⁴⁵³

3. Modern Distance Education

Based on the application of two-way interactive modern information and communication technology and the technical basis of the third generation, modern distance education is mainly computer technology, multimedia technology and modern communication technology, and the core of which is network technology.

In 1998, the State Council approved the Ministry of Education's *Action Plan for Education Rejuvenation for the 21st Century*, proposed the Modern Distance Education

⁴⁵³ Ding, X. (2001). 我国远程教育的萌芽、创建和起步——中国远程教育的历史发展和分期(1) [The Origin, Foundation and early development of China's Distance Education: developmental history and stages of distance education in China]. *Modern Distance Education*, 2001 (1), 6-10.

Project. Four universities were approved and announced in the same year as the first batch of pilot for modern distance education, marking the official launch of the project.⁴⁵⁴

In 1999, the Ministry of Education formulated the Opinions on the Development of Modern Distance Education, and launched the “CERNET High-speed Backbone Network Construction Project” in September of the same year to meet the needs of modern distance education in China. In 2001, the Ministry of Education issued *Several Opinions on Strengthening Undergraduate Teaching Work in Colleges and Universities to Improve Teaching Quality*, proposing to increase the use of educational technology in education and calling for the establishment and improvement of teaching quality monitoring and assurance systems.⁴⁵⁵ By 2001, the number of institutions approved by the Ministry of Education to develop distance education reached 67.⁴⁵⁶

In April 2003, the Ministry of Education promulgated *the Notice on Launching the Construction of Quality Courses for Teaching Quality and Teaching Reform Project in Higher Education Institutions* and launched the National Quality Courses construction project. The project aims to promote the importance of teaching methods and quality in universities through the development, selection and release of demonstration courses, and to achieve an overall improvement in teaching quality.⁴⁵⁷ According to the data of the Ministry of Education, by 2010, teachers from more than 750 colleges and universities have participated in the construction of 3,909 National Quality Courses and over 20,000 provincial and university-level quality courses.⁴⁵⁸

It is clear that improving the quality of education through the production of high-quality video courses has been an important element in the development of education in China before MOOC entered the country. However, video courses at this time were mainly used for learning and communication between teachers, and were rarely known to

⁴⁵⁴ Chen, L., Lin, S., & Zheng, Q. (2016). “互联网+”时代中国远程教育的机遇和挑战 [Opportunities and Challenges of Distance Education in China in the "Internet +" Era]. *Modern Distance Education Research*. 2016(1), p. 4.

⁴⁵⁵ MOE, PRC. (2001, August 28). 关于加强高等学校本科教学工作提高教学质量的若干意见 [Several Opinions on Strengthening Undergraduate Teaching Work in Colleges and Universities to Improve Teaching Quality]. Ministry of Education of the People's Republic of China.

⁴⁵⁶ Lv, S. (2003, November 16). 国内现代远程教育的现状和发展趋势 [Current situation and development trend of modern distance education in China]. Sina-Tech.

⁴⁵⁷ MOE, PRC. (2001, April 8). 教育部关于启动高等学校教学质量与教学改革工程精品课程建设工作的通知 [Notice of the Ministry of Education on Starting the Construction of National Quality Courses for Teaching Quality and Teaching Reform Projects in Higher Education]. Ministry of Education of the People's Republic of China.

⁴⁵⁸ Li, B. (2013, December 27). 关于国家精品课程的咨询 [About the National Quality Courses]. Ministry of Education of the People's Republic of China.

students and were generally difficult for students to access. The entry of MOOCs into China coincided with the rapid development and widespread popularity of the Internet in China. The dramatic increase in the number of Chinese netizens, the widespread use of various mobile devices and APPs, the ever-increasing variety of modern forms of distance education and the rising need of society for distance education have led to the gradual penetration of modern distance education into all aspects of the traditional education system. The construction of online courses such as online quality courses, MOOC and SPOC (Small Private Online Course) has received extensive attention from the Ministry of Education and universities, and a lot of relevant exploration has been carried out in various aspects such as platform construction and course construction. Online courses have been increasingly widely used.

Since 2012, the Ministry of Education upgraded the National Quality Courses to National Open Quality Courses on a merit basis, and the service subject transformed from college teaching staff to college teachers and students and social learners.⁴⁵⁹ The National Open Quality Courses are open courses consisting of high-quality open video courses and high-quality resource sharing courses, aimed to popularize and share high-quality course resources, embodying modern educational thinking and education teaching rules, demonstrating teachers' advanced teaching concepts and methods, serving learners' independent learning and disseminating through the Internet. During the 12th Five-Year Plan period, there were 1,000 national high-quality video courses, including 100 courses in 2011 and 900 courses from 2012 to 2015, and 5,000 national high-quality resource sharing courses.⁴⁶⁰ Commissioned by the “Higher Education Undergraduate Teaching Quality and Teaching Reform Project” initiated by the Ministry of Education and the Ministry of Finance during the “12th Five-Year Plan”, the Higher Education Press set up iCourse (<https://www.icourses.cn>) as an official higher education course resource sharing platform to undertake the construction, application and management of National Open Quality Courses.⁴⁶¹ In April 2012, the Ministry of Education identified the first batch of 43 high-quality open video courses created by the Project 985 universities, and extended the scope of the construction of high-quality open video courses to Project 211 schools

⁴⁵⁹ Li, B. (2013, December 27). 关于国家精品课程的咨询 [About the National Quality Courses]. Ministry of Education of the People's Republic of China.

⁴⁶⁰ MOE, PRC. (2011, October 12). 教育部关于国家精品开放课程建设的实施意见. [Implementation Opinions of the Ministry of Education on the Construction of National Open Quality Courses]. Ministry of Education of the People's Republic of China.

⁴⁶¹ See iCourse – About Us.

and a small number of non-Project 211 universities with distinctive disciplinary advantages.⁴⁶² By December 2015, a total of 992 high-quality video courses were published.⁴⁶³ In July 2016, the Ministry of Education announced the first batch of “national quality resource sharing courses”, including 1,767 undergraduate courses, 759 senior high school courses and 160 online education courses, with a total of 2,686 quality online courses.⁴⁶⁴

Table 20 Eight batches of National High-Quality Video Courses

Time Period	Number of high-quality video courses
2011– April 2012	43
May 2012 – September 2012	62 ⁴⁶⁵
October 2012 – April 2013	139 ⁴⁶⁶
May 2013 – September 2013	121 ⁴⁶⁷
October 2013 – December 2013	121 ⁴⁶⁸
January 2014 – September 2014	137 ⁴⁶⁹
October 2014 – February 2015	158 ⁴⁷⁰

⁴⁶² MOE, PRC. (2012, April 26). 教育部关于首批“精品视频公开课“名单的通知. [Notice of the Ministry of Education on the List of the First batch of High-Quality Video Courses]. Ministry of Education of the People’s Republic of China.

⁴⁶³ MOE, PRC. (2016, February 5). 教育部办公厅关于公布第八批“精品视频公开课”名单的通知 [Notice of the Ministry of Education on the List of the 8th batch of High-Quality Video Courses]. Ministry of Education of the People’s Republic of China.

⁴⁶⁴ MOE, PRC. (2016, July 1). 教育部办公厅关于公布第一批“国家级精品资源共享课”名单的通知 [Notice of the Ministry of Education on the List of the 1st batch of *National-Level Resource Sharing Courses*]. Ministry of Education of the People’s Republic of China.

⁴⁶⁵ MOE, PRC. (2012, December 19). 教育部办公厅关于公布第二批“精品视频公开课”名单的通知 [Notice of the Ministry of Education on the List of the 2nd batch of *High-Quality Video Courses*]. Ministry of Education of the People’s Republic of China.

⁴⁶⁶ MOE, PRC. (2013, June 4). 教育部办公厅关于公布第三批“精品视频公开课”名单的通知 [Notice of the Ministry of Education on the List of the 3rd batch of *High-Quality Video Courses*]. Ministry of Education of the People’s Republic of China.

⁴⁶⁷ MOE, PRC. (2013, November 11). 教育部办公厅关于公布第四批“精品视频公开课”名单的通知 [Notice of the Ministry of Education on the List of the 4th batch of *High-Quality Video Courses*]. Ministry of Education of the People’s Republic of China.

⁴⁶⁸ MOE, PRC. (2014, April 9). 教育部办公厅关于公布第五批“精品视频公开课”名单的通知 [Notice of the Ministry of Education on the List of the 5th batch of *High-Quality Video Courses*]. Ministry of Education of the People’s Republic of China.

⁴⁶⁹ MOE, PRC. (2014, October 27). 教育部办公厅关于公布第六批“精品视频公开课”名单的通知 [Notice of the Ministry of Education on the List of the 6th batch of *High-Quality Video Courses*]. Ministry of Education of the People’s Republic of China.

⁴⁷⁰ MOE, PRC. (2015, April 15). 教育部办公厅关于公布第七批“精品视频公开课”名单的通知 [Notice of the Ministry of Education on the List of the 7th batch of *High-Quality Video Courses*]. Ministry of Education of the People’s Republic of China.

5.2.2 The Starting Period of MOOCs in China

If 2012 is the year of MOOC, then 2013 is the year of MOOC in China. When MOOCs came into China in 2012 while spreading rapidly across the world, some Chinese netizens started to take the courses shared by the prestigious American universities, but Chinese educational researchers and practitioners were still watching. Starting from October 2012, MOOCs began to receive responses first from the Chinese educational technology industry, and gradually ushered in a speeding era of development in China when Tsinghua University and Peking University joined edX. Since then, academic discussion and new educational attempts, as well as news reports relevant to MOOCs, have been on the increase. Coming next is the chronology of the development of MOOCs in China.

In October 2012, Guolairan (Beijing) Education Technology Co., Ltd founded TopU.com, China's first MOOC platform. It is a commercial platform with completely independent intellectual property rights. TopU committed to providing first-class higher education and vocational education content, promoting education equity, exploring educational innovations, and helping young people with employment.⁴⁷²

In December 2012, Shanghai Able Electronic Co., Ltd launched Zhihuishu.com which aims to be China's leading manufacturer of educational informatics and internet education operator.⁴⁷³

On 21st February 2013, the Chinese University of Hong Kong announced an agreement to partner with Coursera.⁴⁷⁴

In April, Nauhabar Sharif at Hong Kong University of Science and Technology (HKUST) launched Asia's first MOOC "Science, Technology and Society in China" on Coursera. 17,000 students registered for the three-week course.⁴⁷⁵

⁴⁷¹ MOE, PRC. (2016, February 5). 教育部办公厅关于公布第八批“精品视频公开课”名单的通知 [Notice of the Ministry of Education on the List of the 8th batch of High-Quality Video Courses]. Ministry of Education of the People's Republic of China.

⁴⁷² Sina Edu (2013, December 6). *Guolairan's Open Courses, TopU MOOC platform*. Sina.cn.

⁴⁷³ Zhihuishu (2020). About Zhihuishi. Zhihuishu.com.

⁴⁷⁴ CUHK Communications and Public Relations Office (2013, February 21). *CUHK Partners with Coursera to Offer Global Online Education*. Chinese University of Hong Kong.

⁴⁷⁵ Sharma, Y. (2013, April 17). *Asia's first MOOC draws students from around world*. University World News.

On 21st May 2013, edX announced its new 15 higher education partners with the addition of its 6 Asian universities including Tsinghua University and Peking University in Mainland China, The University of Hong Kong and Hong Kong University of Science & Technology in Hong Kong, Kyoto University in Japan, and Seoul National University in South Korea.⁴⁷⁶

On 8th July 2013, Fudan University and Shanghai Jiaotong University signed cooperation agreements with Coursera, being the first two universities in Mainland China to join the consortium.⁴⁷⁷

On 9th July 2013, Shanghai Jiaotong University took the lead in constructing an online learning platform with the domestics C9.⁴⁷⁸

On 10th July 2013, MOOC.GUOKR.COM (MOOC 学院) went live to replace the former MOOC self-study group on Guokr.com. It is the largest MOOC learning community in China, serving as a MOOC guide with access to courses on mainstream platforms like Coursera, Udacity and edX. Users can review and rate the MOOCs they have taken here, discuss course-related questions with other learners and record their class notes.⁴⁷⁹

On 2nd August 2013, netizens of MOOC.GUOKR.COM spontaneously formed Eduinfinity Translation Group (in Chinese: 教育无边界字幕组) and started to translate MOOCs for Chinese-speaking learners.⁴⁸⁰

On 12th August 2013, East China Normal University and 20+ prestigious Chinese high schools jointly formed the Massive Open Online Courses Alliance of 20 Chinese High Schools, referred to as C20 MOOCs (High Schools).⁴⁸¹ One month later, C20 MOOCs (Middle Schools) and C20 MOOCs (Elementary Schools) were founded.⁴⁸² The

⁴⁷⁶ edX (2013, May 21). *EdX continues to grow its network of the world's leading institutions of higher education to meet global demand and increase access to quality education.*

⁴⁷⁷ Jiang, P. (2013, July 9). 复旦交大加入在线课程 中国高校直面海外名校冲击 [Fudan University & Shanghai Jiaotong University join online courses, Chinese universities face challenges from overseas prestigious universities]. Shedunew.com.

⁴⁷⁸ Tian, A. (2015, January 9). *Education focus switches from knowledge transmission to comprehensive quality development.* China Education Press.

⁴⁷⁹ Ma, Y. (2013, December 30). *2013 summary: MOOC keywords of the year.* mooc.guokr.com.

⁴⁸⁰ Eduinfinity (2014). *字幕组简介及入组申请 [Introduction to Eduinfinity & Jion Us].* Eduinfinity Translation Group.

⁴⁸¹ Shi.X. (2013, August 14). *20+ High Schools nationwide jointly created C20 MOOC alliance.* China Education Daily.

⁴⁸² Shi.X. (2013, September 27). *C20 (Elementary Schools) and C20 (Middle Schools) are formally founded.* China Education Daily.

C20 alliance is a not-for-profit academic organisation which aims to promote the classroom teaching reform of basic education in China.

On 16th August 2013, Coursera announced that they would cooperate with Yeeyan, an open translator community site founded in 2007 in China, to translate complete lectures from selected courses into Chinese.⁴⁸³

On 26th August 2013, Kaikeba was set up as China's first pan-IT online education platform.⁴⁸⁴

At the end of August 2013, National Taiwan University launched in conjunction with Coursera the first Chinese-language MOOCs on probability and China's first emperor Qin Shi Huang.⁴⁸⁵

Again at the end of August 2013, designed by National Chiao Tung University (NCTU), ewant went live as a co-initiative of NCTU and other four Jiao Tong universities from Mainland China - Shanghai Jiao Tong University, Xi'an Jiaotong University, Southwest Jiaotong University and Beijing Jiaotong University.⁴⁸⁶

On 16th September, Guokr.com joined the Coursera's Global Translation Partners Group as its second Chinese partner.⁴⁸⁷ Benefiting from the official collaboration between Guokr.com and Coursera, the caption translated by the Eduinfinity Translation Group started to be embedded in Coursera's lecture videos.⁴⁸⁸ As of May 2015, the number of courses Eduinfinity has translated for Coursera exceeded 70.⁴⁸⁹

On 7th October 2013, Coursera teamed up with NetEase and launched Coursera Zone, a Chinese-language portal to Coursera.org hosted on NetEase's popular open education website open.163.com., to facilitate Chinese-speaking learners with easier access to Coursera-based massive open online courses.⁴⁹⁰

⁴⁸³ Coursera Blog (2013, August 16). *Welcome Yeeyan, Coursera's new translation partner for Chinese!* Coursera.

⁴⁸⁴ Kaikeba (2020). *About Kaikeba*. Beijing Kaikeba Tehcnology Co., Ltd.

⁴⁸⁵ Taiwan Today (2013, August 26). *NTU launches 1st Chinese-language MOOCs*. Taiwan Today.

⁴⁸⁶ NCTU OpenCourseware (2013, September 11). *NCTU set up "ewant" open education platform to serve global Chinese with new learning style*. NCTU OpenCourseWare, News Release.

⁴⁸⁷ Coursera Blog (2013, September 16). *大家好! Guokr (果壳) joins the Coursera Translation Partners Program*. Coursera.

⁴⁸⁸ Eduinfinity (2014). *字幕组简介及入组申请 [Introduction to Eduinfinity & Jion Us]*. Eduinfinity Translation Group.

⁴⁸⁹ Eduinfinity (2015). *About Us*. Eduinfinity Translation Group.

⁴⁹⁰ Coursera Blog (2013, October 7). *A new partnership to bring Coursera to the hundreds of millions of Chinese learners across the world*. Coursera.

On 10th October 2013, Tsinghua University launched XuetaoX (in Chinese: 学堂在线), the first Chinese-language MOOC platform worldwide, based on OpenEdX.⁴⁹¹

On 27th December 2013, backed up by Educational Technology Institute Tsinghua University, the Education and Teaching Reform Committee of China Adult Education Association announced the set up of “MOOCs Community” in conjunction with its affiliated organisations to develop independent high-quality courses sharing platform of adult universities. On 14th November 2014, the first-course “Fundamentals of Computer Applications” was launched together with others as the first batch.⁴⁹²

On 8th April 2014, CNMOOC (in Chinese: 好大学在线), a Chinese MOOC platform developed by Shanghai Jiaotong University, went live. It is also the official learning platform of China’s High-level University MOOC Alliance, and the first ten courses were produced by universities from Mainland, Taiwan and Hong Kong.⁴⁹³

On 29th April 2014, The Hong Kong University of Science and Technology officially posted their plan for Hong Kong’s first Credit-bearing MOOC. “The Science of Gastronomy” was supposed to be their first course to adopt the credit-bearing system in the coming summer. HKUST students are allowed to earn credits for their degree study after full participation and a six-week face-to-face on-campus class regarding the course. The population of this new learning model had drawn over 100,000 students.⁴⁹⁴

On 8th May 2014, ICOURSE163ORG (in Chinese: 中国大学 MOOC) was co-introduced by ICOURSE, a higher education course centre backed up by the Chinese Ministry of Education and the Ministry of Finance, and STUDY.163.COM, an online learning platform for practical skills. ICOURSE163ORG aims to support life-long learning, letting everyone who wants to learn access high-quality higher education.⁴⁹⁵

On 12th May 2014, UOOC, refers to University Open Online Courses alliance, was founded at Shenzhen University with 56 partner colleges. It is the first national high-quality course sharing platform for local colleges and universities. Under the guidance of

⁴⁹¹ GD 9.

⁴⁹² Li, Y. (2015). 我国成人高校“MOOCs 共同体”建设行动及推进方向 [MOOCs Community" in *China's Adult Higher Education: Constructive Actions and Driving Directions*]. *Modern Distance Education Research*, 4, 88-95.

⁴⁹³ CNMOOC (2014, April 8). 上海交通大学“好大学在线”上线 [CNMOOC – developed by Shanghai Jiaotong University – goes live].

⁴⁹⁴ HKUST (2014, April 29). *HKUST Launches Hong Kong's First Credit-bearing MOOC and Three New Programs on edX*. The Hong Kong University of Science and Technology.

⁴⁹⁵ Higher Education Press (2014, May 8). “爱课程”网中国大学 MOOC 平台上线 [ICOURSE.ORG goes live]. Higher Education Press.

relevant national policies, and based on the principle of co-creation, co-construction and sharing, UOOC committed to improving the abilities of local colleges and universities to cultivate talents and serve the society, promoting the balanced development of China's higher education by integrating high-quality teaching resource in local colleges and universities across the country and forming a high-quality curriculum co-construction and sharing mechanism.⁴⁹⁶

On 9th October 2014, in the latest *Opinions on the Implementation of the Administration of Credit System in Ordinary Colleges and Universities* (hereinafter referred to as “Opinion”) published by the Department of Education of Guangdong Province, higher education institutions were encouraged to introduce MOOC into daily teaching activities, accepting MOOCs from other universities as general elective courses with credits According to this “Opinion”, Guangdong local universities would explore the usage of internet-based learning platforms, for instances, the MOOC platforms, to promote the sharing of teachers and courses and the mutual recognition of credits.⁴⁹⁷

On 24th November 2014, in partnership with HEC Paris (École des hautes études commerciales de Paris) and FIRST FINANCE Institute, Tsinghua University School of Economics and Management launched China's first vocational-certification-orientated MOOC programme, the ICCF@HEC Paris - Tsinghua SEM Programme which contains three finance courses. Following the qualifications, those who complete the programme will be able to earn an ICCFTM certification.⁴⁹⁸

In February 2015, Peking University and Alibaba Group co-founded Chinese MOOCs, a Chinese-based platform for Chinese people around the world.⁴⁹⁹

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5.2.3 Guangming Daily's MOOC Coverage (2011-2020)

5.2.3.1 The MOOC News Wave

⁴⁹⁶ SZU News (2014, May 13). 全国地方高校UOOC (优课) 联盟在我校成立 [National UOOC alliance for local colleges and universities is founded at SZU].

⁴⁹⁷ Department of Education of Guangdong Province (2014). 广东省教育厅关于普通高等学校实施学分制管理的意见 [Opinions on the Implementation of the Administration of Credit System in Ordinary Colleges and Universities]. Department of Education of Guangdong Province, 2014(5).

⁴⁹⁸ Tsinghua University News (2014, November 24). 清华经管学院联合推出含证书的MOOC课程 [Tsinghua University School of Economics and Management launches certificate-based joint MOOC courses]. Tsinghua University.

⁴⁹⁹ Zheng, Y. (2015, May 20). 北京大学运行华文慕课, 实现上网读北大 [Peking University launches Chinese MOOCs, PKU is now online available]. Beijing Evening News, 48.

Searching in the WiseSearch, the largest database of news publications in Greater China, the first local coverage concerning about MOOCs (13 articles) appeared in the second half of 2012, and the first article was done by Shanghai Daily, an English-language newspaper in Yangtze River Delta. On 5th July 2012, Shanghai Daily adapted the Knowledge @Wharton's article *Can Free Online Courses Transform the Higher Education Industry? Will Free Mass Online Learning Upstage Old Classroom Model?* Starting with Bilal Shah's experience of learning on Coursera and finding a job after getting certification from the class, the article briefly introduced the three leading MOOC platforms – Coursera, Udacity and edX – and the ideas behind them, questioned the sustainability of their business models while listing three win points which might lead them to ways diff rent from that of their failed predecessors, for instance, Fathom and AllLearn.⁵⁰⁰

On 29th August 2012, China Science Daily, the oldest professional media of the P.R. China, published the first Chinese-language MOOC report – *The Network Universities Era Is Coming* on its thoughts page. Tagging Udacity as a coming “21st Century university”, Coursera as a commercialised online education institution and edX as an education platform to prevent excessive commercialisation of online education, the author Guo Yingjian regarded MOOC as a novel online education model which triggers changes because MOOCs have had a substantial impact on American higher education since Sebastian Thrun' successful trying. How the online university era will affect traditional college education is full of controversy, and it is a must to consider where the way forward is when facing the coming age, Guo ended.⁵⁰¹

On 16th October 2012, Fujian Daily, the CPC Fujian Provincial Committee's newspaper, posted the article *Online Education Won't Replace Colleges*, which might be the first Chinese MOOC report on general Chinese-language media. The reporter Ling Wen quoted the Assistant Professor of Economics David Youngberg's opinion presented in *The Chronicle of Higher Education* on 13th August, stating the five reasons why online education won't replace colleges, and concluded that online learning would flourish while facing many challenges if traditional colleges do not change, but there remain chances for

⁵⁰⁰ Shanghai Daily. (2012, July 5). *Will free mass online learning upstage old classroom model?* Shanghai Daily, Opinion, A06.

⁵⁰¹ Guo, Y. (2012, August 29). *网络大学时代已经到来 [The network universities era is coming]*. China Science Daily, B3 Thoughts.

conventional education to learn from MOOC-like education.⁵⁰² Since then, four news reports in 2012 and 5,145 articles as of the end of June 2020 mentioned MOOCs on the general Chinese-language newspapers.

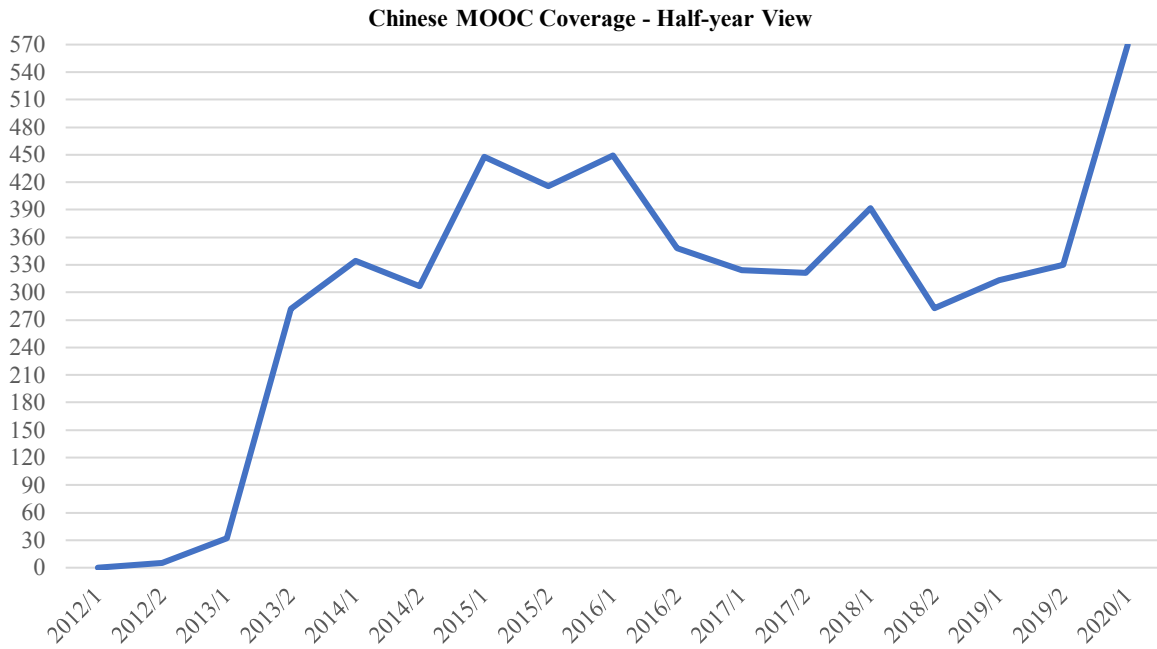


Figure 15 Chinese MOOC Coverage – Half-year View (01.08.2012 – 31.05.2020)

Figure 15 shows the Chinese MOOC coverage from 1st August 2012 to 3rd May 2020 in a half-year view. As can be seen from Figure 1, sporadic Chinese MOOC reports came after the end of August in 2012, the so-called Year of MOOC, soaring in the latter half of 2013(282 volumes) after slow growth in the first half of the year (32 volumes). The coverage growth experienced a slight slowdown in the first half of 2014 and a shallow drawdown in the next half-year. In 2015, local Chinese MOOC-related news almost repeated its last year’s route in the last year but with a higher increasing speed in the first half-year. After a rise in the first half of 2016, the volume of news in the second half-year dropped significantly and remained relatively stable in the following 12 months. Another rise and fall occurred in 2018, and the half-year reports volume fell below 300 for the first time since 2014. The statistics returned to more than 300 articles every six months in 2019 and surged again at the beginning of 2020. Even so, the half-year MOOC-related news volume has almost remained over 300, and the second half of 2018, when it was less than 300 (283 volumes), was merely slightly insufficient.

⁵⁰² Ling, W. (2012, October 16). 在线教育不会取代大学 [Online education won't replace colleges]. Fujian Daily, 13.

5.2.3.2 The Key Event?

According to Vasterman's definition, a clear key event which the news wave started with is an important criterion to identify media hype. There is a distinct beginning of the Chinese MOOC news wave, but it seems hard to define the key event which triggered the start. The Chinese news workers did not give response immediately after the eye-popping moment when Sebastian Thrun first achieved his grand success with 160,000 students merely in his course *Introduction to Artificial Intelligence*, nor at the time when the famous Ivy universities jumped into the MOOC bandwagon, even not at the time when an American university president was announced to be fired for her slow reaction to MOOC. In July 2013, for the first time, over 30 articles were printed in the general newspapers, since then, intensive attention was paid to MOOCs by the press.

Looking into the Chinese MOOC Chronology, we would find that online education, like MOOCs, was speeded up since 2013

In the first season of 2013, universities from Hong Kong began to act as MOOC players, and almost until the middle of the year, leading universities from mainland China began to respond to the grand MOOC boom. As the first local MOOC-related news came in the third season of 2012, which was quite late for the significant MOOC events but much earlier than the time the Chinese officially started to join in the movement, it seems that there is no visible key event for the sustainable growth of MOOC news.

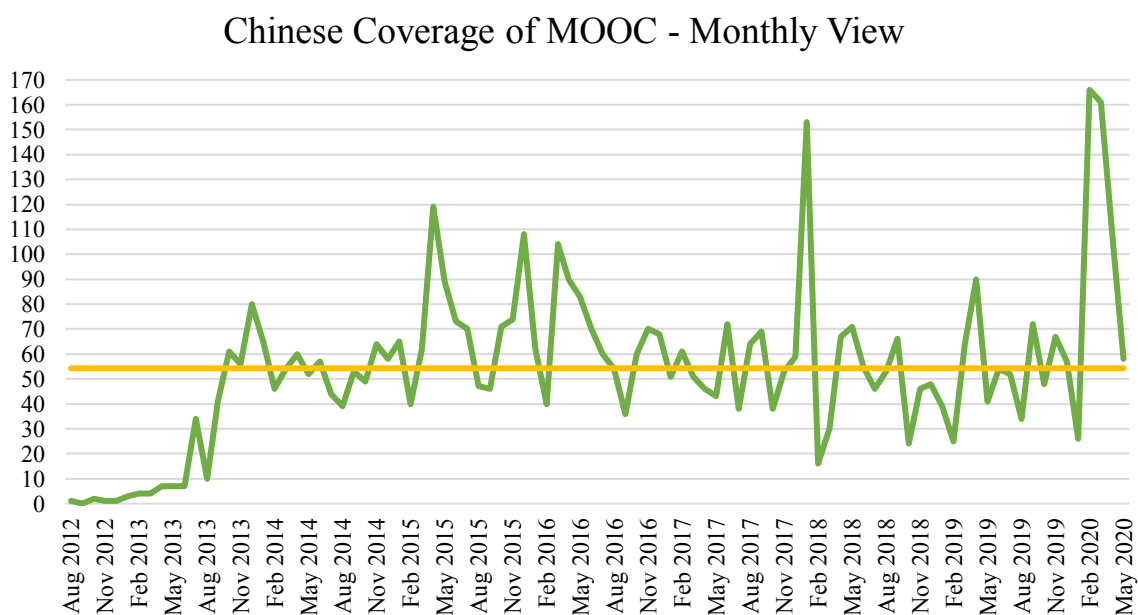


Figure 16 Chinese Coverage of MOOC – Monthly View (01.08.2012 - 31.05.2020)

If we take a monthly view of the Chinese MOOC coverage (Figure 16), the curve of all the 5,145 articles looks more like a random stock index graph. Comparing this with the Chinese MOOC Chronology, we may find some big events behind the news peaks, for instance, the busy July of 2013 when Fudan University and Shanghai Jiaotong University joined Coursera and 12 leading Chinese universities achieved an agreement on the construction of China's MOOCs and online courses sharing alliance, and the historical October of the same year when Tsinghua University developed the first Chinese-language MOOC platform. However, it is hard to find a convincing common big event for all the news summits, and the news waves originated from various progress in the process of MOOC development in China.

5.2.3.3 The Media Making News?

According to the sampled GD reports, 322 reports were created in a time range from 1st May 2013 to 3rd May 2020. The first MOOC news on Guangming Daily, *Tsinghua University officially joined edX*, was made on 22nd May 2013, and the first MOOC news peak with a volume of four articles came three months later in August. Correspondingly, we can find that in the August of 2013, the spontaneous actions of Chinese netizens, the commercial actions of investors and the initial alliance of authoritative higher education institutions have greatly promoted the development of MOOC in China. Figure 17 gives an overview of monthly MOOC news on Guangming Daily. In the past seven years, GD had an average of 3.8 articles per month involving MOOC, and the median of monthly MOOC news is 3. That means, on the whole, the GD's monthly MOOC coverage is quite stable. There was at least one article mentioning MOOC every month. In more than 70% of the months, 3 or more MOOC-related articles were published, of which 5 months had 10 or more reports. It can therefore be seen that there is no obvious trace of media making news around a certain key event in GD's MOOC reports.

Of The 322 GD articles, there are 105 articles written by professors, researchers and scholars from universities, educational research institutes and educational authorities, 16 speeches and interviews in various educational forums and seminars, 3 articles written by popular science magazine authors, 1 policy document and 1 announcement of textbook research programme. In other words, more than 40% of the total articles refer to experiences, opinions and suggestions of professionals in the educational field.

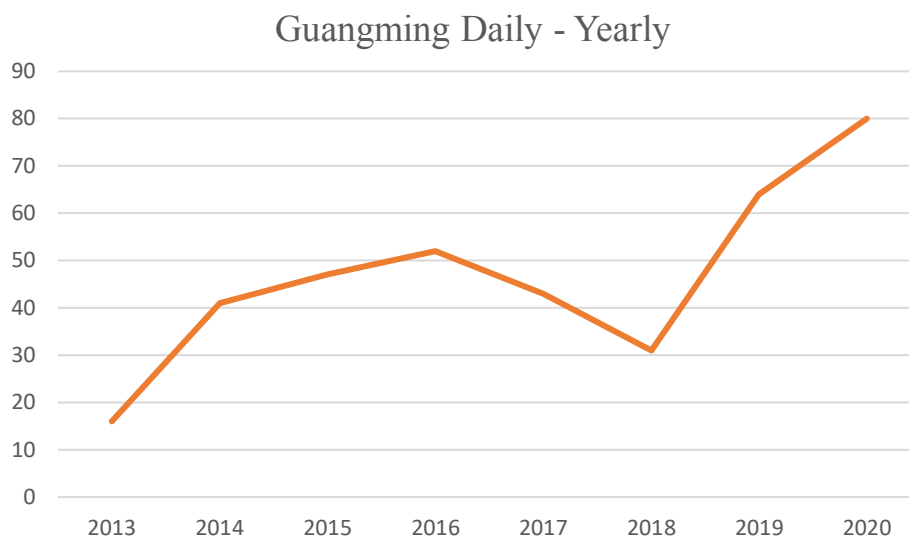


Figure 17 MOOC Reports Guangming Daily (May 2013 – September 2019)

In terms of the headlines of surveyed reports, GD’s news coverage which mentioned MOOC can be divided into two main categories:

1. refine the existing education system and methods with rising educational technologies, especially with internet-related technologies, to adapt to the changing times;
2. make education and internet teaching technology better serve the needs of the development of the country and society.

Table 21 Top 10 Keywords in News Headlines

Keywords	Number of Articles
Education, teaching and learning, cultivation	137
School & University	82
MOOC & 慕课 (MOOC in Chinese)	48
Online & Internet	44
Ideological and political education	35
Reform, Reshape, Transform, Change	35
Innovation	31
Informatisation & IT	20

Military Development	12
Corona pandemic	11

When it comes to content, Guangming Daily’s MOOC news is highly focused on China’s local MOOC development. Instead of telling how awesome and incredible MOOCs are, it described how the Chinese government, educational authorities and institutions value MOOCs as well as their attempts and efforts to promote MOOCs in practical teaching activities, and the reactions of the general public. GD’s reports mainly convey four messages:

- a. Chinese government, educational authorities and institutions place great emphasis and high supports on the application and development of MOOCs;
- b. MOOC is a unique service tool deriving from the rapid development of modern computer communications and networking technology and the widespread use of the internet in the digital age;
- c. MOOC comes with opportunities and challenges;
- d. MOOC will have a significant impact on current education, but not in a substitute way.

Based on other scholars’ research findings on MOOC news coverage in different countries, Yvonne Rowa and Maggie Hartnett summarised the seven major themes of media coverage on MOOC. In analysing GD MOOC coverage, these seven themes which dominate in the Western newspaper will also be applied to examine whether GD’s reports follow this pattern, and to what extent these themes are covered. Through such comparisons, it is evident that even the same themes vary greatly in coverage from one country to another, so the authors will make definitional adjustments to the connotations of the seven themes to keep them more in line with the MOOC reality in China as reported by GD.

5.2.3.3.1 Change

The theme “change” in GD is referring to the idea that MOOC, based on the Internet and information technology, will help improve the existing education system, providing new solutions to address the uneven distribution of quality education resources, improve the quality of education, and shape the education system to meet the needs of the times. In the process, leading schools with more quality educational resources will

take on more responsibility to share their resources in the form of a MOOC, while also further expanding their reach, maximising the equality of educational opportunities between urban and rural areas, rich and poor regions.

Table 22 Frequency of the Theme Change

Terms	Articles	Frequency
Higher education universalization 普及高等教育	19	23
Education equity 教育公平	50	104
Allocation of education resources 教育资源配置	72	134
Study restrictions 学习障碍	100	184
A sharing of high-quality educational resources 优质教育资源共享	120	293
Education quality 教育质量	166	493
Reshape education system 重塑教育系统	239	1688

Since 2003, China has been implementing the “high-quality courses programme” at the national, provincial and university levels in an effort to achieve open sharing of high-quality educational resources. On 29th July 2010, China published its *Outline of the National Medium and Long-term Programme for Education Reform and Development Plan (2010-2020)*, putting forward the strategic goals of education reform and development in the next decade: By 2020, we will have basically modernised education, basically shaped a learning society and entered the ranks of a strong human resource country. To reach this goal, work in three aspects are highlighted:

1. Comprehensively improve education equity by promoting the balanced development of compulsory education and accelerating the universalization of senior secondary education;
2. Comprehensively improve the quality of higher education by reshaping the talent development scheme, strengthening international exchange and cooperation, introducing high-quality educational resources;
3. Speed up the process of education informatisation by accelerating the construction of educational informatisation and strengthening the development and application of quality education resources.⁵⁰³

⁵⁰³ State Council, PRC. (2010). *Outline of the National Medium and Long-term Programme for Education Reform and Development Plan (2010-2020)*. The State Council of the People’s Republic of China.

Merged as a new education fashion and possibility with rising educational technology and high-quality resource, MOOC shows its great potential in balancing the inequality in educational resource allocation and offering easy access to quality learning resources worldwide by sharing high-standard as well as advanced educational resources, which is in line with the new development needs of education in China and has therefore received top-down attention in China. It is viewed as a beneficial way to solve the shortage of educational resources and to enhance the education quality in under-resourced areas in the central and western regions and rural parts of China.

In all the researched coverage, 121 articles pictured how MOOCs contribute to the spread of knowledge and qualified educational resources, promote educational equity and the popularisation of higher education in groups of different regions, races, occupations, ages, etc. 166 of these articles relate MOOC with the quality of Chinese education with a frequency of 493, 120 directly use the expression “a sharing of high-quality educational resources” for 293 times, 72 comments that MOOCs is a possible and helpful solution for the insufficient and inadequate supplies and unequal distribution of educational resources since online courses can optimise resource allocation with low cost.

A profound change that MOOCs may bring to higher education is the possibility of providing affordable and adequate higher education. However, being in the different stages of development of higher education, countries have quite different emphases when developing MOOCs. For example, the footholds of the United States and China are not the same, although both are trying to take advantage of MOOCs to improve their higher education situation, there is a different priority on education cost and quality. In the USA, college students complained of soaring tuition fees which leave them and their families with increasing heavy students loan debt, therefore, one of the most important things for the United States is to drastically reduce the cost for students to obtain high-quality higher education.⁵⁰⁴ MOOC thus is a favourable attempt to reduce the increasing cost for students to get high-quality higher education. The current MOOC model in the United States corresponds to elite education, with courses taught by professors from top universities such as Harvard, Yale, and Princeton. The intended users of these courses are people all over the world who want to attend these courses, as well as people in the United States who want to access them. The Americans do this on the premise that education has been largely balanced, allowing each sector to share a more elite curriculum based on the

⁵⁰⁴ Bowen, W., & Lack, K. (2013). *Higher Education in the Digital Age*. Princeton; Oxford: Princeton University Press.

fact that each sector's education system is already relatively complete. Top Chinese universities may follow the approach of MOOC and spread their courses to universities and even middle schools in China through MOOCs, but the motivation for doing so is quality and education equity rather than cost, as which are more significant themes for China.

For China's huge student population, high-quality higher education is a scarce resource in China. On the one hand, the supply of high-quality higher education resources cannot meet the needs of all. Every year, millions of candidates fight in the cutthroat Gaokao (National College Entrance Examination) for a position to study at a better university. On the other hand, the nature of public colleges and universities that dominate the Chinese higher education system dictates that they should assume certain social responsibilities, and there have been calls for opening up higher education resources for long.⁵⁰⁵ China has spent decades of educational reform to achieve a quantitative rise in the number of world-class universities and disciplines. In 2015, 25 universities from mainland China were listed as the world's top 500 universities.⁵⁰⁶ Presently, Chinese universities not only attach great importance to scientific research, but also to personnel training and education equity, and have made full efforts to innovate and experiment in teaching methods, especially the popularization of some novel teaching methods represented by MOOCs, which largely facilitated Chinese students' access to world-class universities for further studies and contributed terribly to the distribution of the best educational resources throughout Chinese society.⁵⁰⁷

In the speech *Educational dream, on the road*, Prof. Zhong Binglin, President of the Chinese Society of Education, pointed out that “although China is an educational power in terms of scale, it does not mean that China has a high-performing education system. The urgent demand for high-quality education in economic and social development and of the people and the severe shortage of high-quality educational resources have become the main contradiction in China's education sector, which has

⁵⁰⁵ GD202. Original text: “...我国优质高等教育资源有限，每年有大量考生通过竞争激烈的高考角逐，得到接受优质高等教育的机会。面对以公办大学为主的高等教育体系，社会上一直有开放高等教育资源的呼吁。这构成了一组矛盾，一方面，优质高等教育资源无法满足所有人的需求，另一方面，公办大学的性质决定了其应该承担一定的社会责任...”。

⁵⁰⁶ GD 128.

⁵⁰⁷ GD 128. Original text: “...中国大学现在不仅重视科研，更对人才培养和教育公平高度重视，在教学方法上大力创新和尝试，尤其是以慕课为代表的一些新颖教学授课方法的普及，极大促进了中国学生进入世界一流大学学习深造的机会。这些对于整个中国社会最优质教育资源的分配起到了很大的推动作用...”。

triggered a series of difficult issues of high social concerns, such as training quality, education fairness, graduate employment, and independent schooling”.⁵⁰⁸ And the three major practical problems China need to face and solve are: “first, how to expand high-quality educational resources and focus on improving the quality of education, especially the quality of talent training, while at the same time making efforts to develop moderate scale; second, how to scientifically and rationally allocate limited high-quality educational resources in the long-term process of improving the quality of education, and vigorously promote educational equity, especially to ensure equal access to schools. Third, how to continuously enhance the international voice of Chinese education, especially to increase its influence in the international academic community, and actively promote the internationalization of education”.⁵⁰⁹

Just as Mr. Wang Zhuzhu (Director of the National Center for Educational Technology) said, “online education is not about shoving technology into education, but about solving some problems in education through the application of technology”.⁵¹⁰ Because of its advantages of rapid diffusion and dissemination of information across time and space at a relatively small cost, Internet technology has made it possible for high-quality educational resources to be disseminated regardless of geographic location, thus providing an exogenous space for the development of “Internet + education”.⁵¹¹ The “Internet+ Education”, represented by MOOC, is using the new generation of information and communication technology to improve the efficiency of science communication, allowing different groups of people to enjoy more convenient scientific and civilized achievements.⁵¹² With the rapid development of information technology, online education has become a powerful weapon to promote the equitable development and

⁵⁰⁸ GD 12. Original text: “... 中国已经在规模上成为名副其实的教育大国。但是，教育大国并不意味着教育强国。经济社会发展和人民群众对高质量教育的迫切需求与优质教育资源的严重短缺，已经成为当前我国教育领域的主要矛盾，并由此引发了培养质量、教育公平、学生就业、自主办学等一系列社会高度关注的热点和难点问题...”。

⁵⁰⁹ GD 12. Original text: “...一是如何在规模适度扩大的同时努力拓展优质教育资源，重在提高教育质量，尤其是提高人才培养质量；二是如何在提高教育质量的长期过程中科学合理地配置有限的优质教育资源，大力促进教育公平，尤其是保证入学机会均等...三是如何不断增强中国教育在国际上的话语权，尤其是提高在国际学术界的影响力，积极推进教育国际化。”。

⁵¹⁰ GD 14. Original text: “...在线教育不是把技术硬塞给教育，而是把教育中出现的一些问题通过应用技术加以解决...”。

⁵¹¹ GD 299. Original text: “...而互联网技术所具有的以较小的成本，跨越时空限制，快速扩散、传播信息的优势，使得优质教育资源可以不受地域所限，因而为“互联网+教育”提供了一个外因性的发展空间...”。

⁵¹² GD 267. Original text: “...以慕课为代表的“互联网+教育”，正借助新一代信息通信技术提高科学传播的效率，让不同人群享用更加便利的科学文明成果...”。

quality improvement of basic education. It has played an important role in expanding the coverage of high-quality educational resources, improving the teachers' information-based teaching skills, bettering the education quality in remote and disadvantaged areas and schools, and promoting the advanced balanced development of urban and rural education.⁵¹³

“Benefiting from the advantages of ‘Internet +education’, MOOCs have entered universities such as Tibet University, Xinjiang University, Shihezi University and Qinghai University in the Central and the West of China, and high-quality educational resources can be shared between universities in the East, the Central and the West of China. This effectively helps with the huge difference in teaching quality between universities and the imbalanced development between regions. Statistics show that MOOCs have been applied 8,600 times to universities in the Central and the West of China merely in 2017.⁵¹⁴ “Deng reported the updates provided by a senior official of the Ministry of Education in a highlight in April 2018

Higher education is part, but not all of China's education problems. Improving the quality of education and ensuring equity in education are issues that need to be addressed in all stages of education in China. For instance, the most urgent problem in China is the unevenness in primary and secondary education, and the training of Chinese professionals, especially in basic vocational skills.

Tang Min, counsellor of the State Council and the Deputy Secretary-General of the China Development Research Foundation, deemed that China's MOOCs should solve the real problem of inequality in the provision of teachers.⁵¹⁵ It is necessary to make the education in impoverished areas take one step forward more than other areas as the low-quality education there is very likely to cause the inheritance of poverty – the fundamental problem for poverty reduction. Believing that MOOCs will bring certain changes to our country's basic education, Tang and his team were making an experience to transfer the mathematics classes of the first grade of the High School Affiliated to the Renmin University of China directly to 12 rural schools across the country, so that students in

⁵¹³ GD 253. Original text:“...随着信息化的快速发展，在线远程教育成为促进基础教育公平发展和质量提升的有力武器，在扩大优质教育资源覆盖面、提升教师信息化教学水平、提高边远贫困地区、薄弱学校教学质量、推进城乡教育高位均衡发展等方面发挥了重要作用...”。

⁵¹⁴ GD 212. Original text:“...教育部相关负责人告诉记者，利用“互联网+”的优势，慕课走进了西藏大学、新疆大学、石河子大学、青海大学等中西部高校，东中西部高校优质课程资源共享得以实现：‘这有效破解了校际之间教学质量差距大、区域之间发展不平衡的问题。数据显示，仅去年一年，中西部高校选用慕课即达 8600 门次 ...’。

⁵¹⁵ GD 14.

remote areas can enjoy the same education.⁵¹⁶ Director Li Zhiming from the Science and Technology Development Center of the MOE has a similar opinion: “Regardless of the definition of ‘fairness’, the emergence of MOOC has at least increased one opportunity for choice and access to high-quality educational resources”.⁵¹⁷ Xu Yan, a young lecturer who introduced a Berkeley MOOC into Tsinghua see it as a breakthrough for fundamentally solving the problem of insufficient high-quality education resources in China because of its awfully low cost and the ability to enable premium educational resources far beyond campuses, giving everyone an opportunity and approach to enjoy superior educational resources.⁵¹⁸

Prof. Wang and senior experimentalist Feng Tao from the College of Education of the Capital Normal University feel that online education opens a new model of education equity. For them, the core of the education supply-side reform is to expand the supply of high-quality education resources, optimize the allocation of education resources, and provide learners with more and better choices. Online courses, opening up unlimited knowledge space and breaking the time and space restrictions, provide people with a new supply-side structure of rich, diverse and selectable educational resources, educational environment and educational service models. In their article *How to develop online education properly?*, they noted that 3.7 million teachers have introduced 4 million lessons in the 2017-2018 national programme “One Course, One Master”, an activity to co-build and share high-quality educational resources. And an increasing number of professionally segmented online education platforms are emerging besides free general educational courses.⁵¹⁹

Chen Qun, a member of the Standing Committee of the National Committee of the CPPCC and President of East China Normal University, said in an interview during the 2014 Two Sessions: Educational inequity is mainly an imbalance in the distribution of high-quality educational resources, the core of which is the imbalance in high-quality teacher resources. The emergence of MOOCs should provide a possible way to solve this

⁵¹⁶ GD 18.

⁵¹⁷ GD 18. Original text:“... 教育部科技发展中心主任李志民表示, 无论“公平”如何定义, “慕课”的出现, 至少增加了一种选择的机会, 增加了选择优质教育资源的机会...”.

⁵¹⁸ GD 1.

⁵¹⁹ GD 252. Original text:“...教育供给侧改革的核心, 是扩大优质教育资源供给, 优化教育资源配置, 为受教育者提供更多、更好的教育选择。而在线课程打开了无限的知识空间, 打破了时空限制, 为人们提供了丰富、多元、可选择的教育资源、教育环境和教育服务模式的新供给侧结构。数据显示, 我国 2017-2018 年度优质教育资源共建共享“一师一优课、一课一名师”活动参与教师已有 370 万名, 晒课 400 万堂... 除了免费通识类教育课程之外, 越来越多专业细分的在线教育平台也涌现出来...”.

problem. As a mode of online course development, with the support of information technology, MOOC can achieve large-scale and full coverage, and realize the sharing of excellent teachers and high-quality courses. East China Normal University launched a MOOC Center in 2013, which aims to build up a MOOC resource database covering various subjects of basic education and provide free access to promote the sharing of high-quality educational resources throughout the country, especially in the central and western regions. Chen suggested increasing investment in information technology for education in the central and western regions to enable more teachers and students to use MOOCs; establish a national organization to closely integrate the construction of MOOCs with the curriculum reform with unified standards and procedures; increase investment and support to ensure more participation of prestigious schools and teachers in the construction of MOOC, so that high-quality courses can be incorporated into the MOOC system of the national basic education and achieve their due functions with excellent quality.⁵²⁰ Chen is not the only one who has this idea. Huang Zhen, the Vice President of Shanghai Jiao Tong University submitted similar proposals during the Two Session. In 2013, he suggested preparing plans and policies for China's large-scale online education development and proposed his thinking on *Promoting Equity, Quality and Innovation in Education with MOOCs* in 2014.⁵²¹

In such a context, the “Three Classes” model – Directed Class, Master Class, and Top School Online Class – has gradually been popularised in China's compulsory education. The Directed Class project mainly aims to help with the lack of teachers and the inability to offer state-specified courses in rural and disadvantaged areas through full coverage of digital educational resources. For instance, Anhui Province realized full coverage of teaching sites across the province and the normalization of remote teaching through unified teaching plans, unified schedule and unified teaching progress. The

⁵²⁰ GD 22. Original text:“...教育不公平主要是优质教育资源分配的不平衡,其核心还是优质教师资源的不平衡...慕课”(MOOCs)是一种在线课程开发模式。这种模式形式生动活泼,可以在信息技术的支撑下,做到大规模、全覆盖,实现了优秀教师和优质课程的资源共享...华东师范大学去年成立了慕课中心,计划用两年时间,建成覆盖基础教育各学科知识点的慕课资源库,并提供免费使用,推动优质教育资源在全国特别是中西部地区的共享。建议加大对中西部地区教育信息技术的投入,让更多师生有机会接触、使用“慕课”。同时,成立全国性“慕课”建设机构,制定统一的标准和程序,把“慕课”建设与基础教育的课改紧密结合起来。加大投入和支持力度,保证更多的名校、名师加入“慕课”建设,让优质课程纳入全国基础教育的“慕课”体系,以卓越的质量实现其应有的功能...”。

⁵²¹ GD 21. Original text:“...敏锐注意到慕课(大规模开放在线课程)对提高教育质量、推进教育公平的意义,上海交通大学副校长黄震委员2013年就提交提案,建议尽快编制我国大规模网络在线教育发展规划与政策。今年,他将带着关于“慕课促进教育公平,提高教育质量和推动教育创新”的最新思考参加两会...”。

Master Class project gives full play to the demonstration and leading role of outstanding teachers to improve the teaching skills of teachers and students' self-learning ability. The project Top School Online Class project has promoted the rapid sharing of high-quality resources throughout the country and has effectively helped a growing number of schools in education quality. Taking the advantage of the educational resources of leading schools like Chengdu No.7 High School, Sichuan radiates nine provinces and one city in the central and western regions through full-time live broadcasting, recording and implanted teaching. With the wide spread and application of the Three Classes, China has gradually built up an effective mechanism to expand the coverage of high-quality educational resources by means of information technology and established a "One to More" teaching and research organization model to share high-quality educational resources in a wider scope.⁵²²

"In order to fulfil the public demands, the Ministry of Education officially launched 490 national premium online open courses. The entire curriculum system is rich in variety, some are for-credit courses to meet the needs of online learning or blended education for college students from different universities, some are professional courses for career advancement and development for social learners, some are general courses on science and culture for both college students and the public, some are courses released on national platforms or on world-renowned platforms which aims to disseminate Chinese traditional culture excellence and expand the influence of high-level Chinese universities. According to the difference in learning styles, the courses can be categorised as self-learning, for-certificate scheduled learning and organised learning incorporated into the university teaching system".⁵²³

⁵²² GD 253. Original text: "...我国义务教育阶段学校逐步普及了以“专递课堂”“名师课堂”“名校网络课堂”为代表的“三个课堂”典型模式。“专递课堂”主要针对农村特别是边远贫困地区缺师少教、开不出开不齐国家规定课程的问题，实现数字教育资源全覆盖。例如安徽省通过“统一教学计划、统一课表安排、统一教学进度”，实现全省教学点全覆盖和远程授课常态化。“名师课堂”发挥名师示范带动作用，提高广大教师的教学水平和学生自主学习能力。“名校网络课堂”，已推动了优质资源在全国的快速共享，有效帮助了更多学校提高教育质量。四川依托成都七中等学校，通过开展全日制远程直播、植入式教学，辐射中西部地区9省1市，发挥了名校的教育资源优势。随着“三个课堂”等模式的全面推广和应用，我国已经逐步构建起以信息化手段扩大优质教育资源覆盖面的有效机制，建立起“一校带多点、一校带多校”的教学和教研组织模式，使名校优质教育资源可在更广范围内得以共享...”。

⁵²³ GD 212. Original text: "...教育部近日首次正式推出490门国家精品在线开放课程。整个课程体系品种丰富，有满足高校大学生线上学习、因材施教线上线下混合式教学需要的学分课；有适合社会学习者职业提升需求的各种专业课；有提升大学生和社会大众科学、文化素质的通识课；有大量面向国内受众的课程，也有在国际著名课程平台上线的传播中华优秀传统文化、扩大中国高水平大学影响力的课程等。学习方式有自主学习、按计划学习获得证书、纳入高校教学管理的有组织学习等...”。

“Next step, the Ministry of Education will intensify efforts to promote MOOC production of master lecturers, active MOOC use of the front-line teachers and energetic MOOC learning of students. We will take the construction and application of open online courses, which deeply integrated information technologies and education, as a significant means to improve education quality and equity and prepare the ground for seizing the commanding heights of the next round of international higher education reform and development to realise China’s domination in education quality. We will strive to work out a Chinese model and solution for the World’s MOOC development”. said Wu Yan, director of the Higher Education Department of the Ministry of Education.⁵²⁴ (Deng, 17th April, 2018)

On the basis of the development of MOOC in China, the *Declaration of China’s MOOC Action* was released at the China MOOC Conference in April 2019. The Declaration summarises the key experience of China’s MOOC development in terms of “quality first, equity follows, student-centred, teacher-led, embracing openness and cooperation for mutual benefit”, and proposes “Chinese Standards” for the next step of development.⁵²⁵

5.2.3.3.2 Providers and Elite Universities

Table 23 Frequency of the Theme Providers and Elite Universities

Terms	Articles	Frequency
Exchange & Communication 相互交流	6	7
Competition & Challenges 竞争与挑战	101	210
Industry conference 行业会议	109	109
Preeminent teachers & prestigious universities 名师名校	159	522

Reporting on leading schools, especially elite universities is about the fact that they are the main force in creating high-quality MOOCs. With the potential to become a new battleground for International competition in education and to increase the global

⁵²⁴ GD 212. Original text:“... “接下来教育部将加大力度推进落实名师积极建、教师积极用、学生积极学的慕课发展要求，把信息技术与教育教学深度融合的在线开放课程建设与应用作为提高质量、推进公平的重要手段，为我国抢占下一轮国际高等教育改革发展的制高点，实现中国高等教育质量的‘变轨超车’下好先手棋，努力为世界慕课发展创建中国模式，提供中国方案。”吴岩表示...””.

⁵²⁵ GD 249. Original text: “... 2019年4月9—10日，中国慕课大会召开，发布《中国慕课行动宣言》，以“质量为王、公平为要、学生中心、教师主体、开放共享、合作共赢”总结中国慕课建设的重要经验，并对下一步发展提出了“中国标准”...””.

presence of Chinese universities, the development of MOOCs has received top-to-bottom support from the whole education management system, with institutions across the country responding.

MOOC is a new challenge for traditional education coming with the rapid development of information technology, however, big challenges come along with great opportunities. According to the GD coverage, MOOC is also viewed as a great opportunity to explore future education and reform education, especially in the field of higher education, which may lead to a fundamental change in the landscape of higher education. In all 322 investigated Guangming articles, 15 articles are linking MOOC to the growing education competition between national and international universities, 109 articles were about educational industry conferences initiated by leading universities or higher education research institutions, and 159 articles indicated the importance of first-class universities as models in MOOC development by directly mentioning the university names or the university projects.

“To be honest, MOOC is the only one which has drawn such huge attention of so many top university leaders after the great development of educational informatisation in the 1990s”⁵²⁶, Shang Junjie wrote in his article when the heads of the two best Chinese universities viewed MOOC as a big challenge and chance. Peking University’s former president Zhou Qifeng mentioned one of his five dreams of sharing Peking University’s advanced educational resources with the whole country via the internet in his retirement speech. “If we, Peking University, don’t work hard in this area, one day students sitting in our campus may take a course from Harvard, MIT, Oxford, Cambridge and the like...Peking University should not fall behind... It is something that not only matters to our education quality but also to the international influence of Peking University. If more serious, it might be a problem of to be, or not to be”,⁵²⁷ Zhou said. Chen Jining, president of Tsinghua University, also expressed his opinion frankly: The MOOC movement overturns the traditional education concept while bringing major opportunities to higher education.⁵²⁸

⁵²⁶ GD 13. Original text:“... 坦诚地说, 自上世纪 90 年代教育信息化大发展以来, 如此多的一流高校高层领导对信息技术教育应用如此重视, 也只有 MOOC 了...”.

⁵²⁷ GD 13. Original text:“... 北京大学前校长:如果我们北京大学在这方面不努力, 可能有一天学生坐在燕园里上的课程是哈佛的课程、MIT 的课程、牛津的课程、剑桥的课程...不要落伍, 北京大学不能落伍。这个事情既能提高我们的教育质量, 也能提高北京大学的国际影响力。事实上, 如果我说的严重一点, 也许关系到存亡的问题...”.

⁵²⁸ GD 13. Original text:“... 清华大学校长陈吉宁也坦陈...它颠覆传统的教育观念, 同样也能给高等教育带来重大机遇...”.

Since the beginning of the 21st century, the rapid development of economic globalization has made transnational economic activities and cross-border flow of global human and material resources normal, and quickly permeate the field of education. The internationalization of higher education has become a general trend, and a corollary to this is the normalization of the cross-border and cross-regional flow of teachers and students as well as teaching resources. The globalization of economics and education has more rights to the learners to vote with their feet, and the emergence of MOOC, as several GD contributors from the education sector argued, has further enriched the options and facilitated the voting process. The birth and development of open online course alliances and collaborative organizations such as edX and Coursera has accelerated the transnational flow and sharing of international courses, teaching materials and courseware, and is bound to be accompanied by the transnational dissemination and integration of advanced teaching concepts, talent cultivation models, modern teaching approaches and teaching management models.

From Project 211 and Project 985 released in the 1990s and the latest Double First-Class University Plan conducted in 2015, enhancing the comprehensive strength and international competitiveness of Chinese higher education has long been the goal of Chinese educators. There is a consensus that open is the best way to progress. Changes or reform coming with new things may mean more of a threat to existing systems and institutions for Europe and the United States, but for China, it is more of new sustenance to the Chinese education, and may even mean an opportunity to perform an “overtake on the bend”. Over the past decades, Chinese universities have continuously promoted International exchanges and cooperation since it is an important approach for China to extract the successful experience of foreign counterparts to improve the ability of Chinese universities to cultivate innovative talents. As mentioned in several articles, MOOC breaks down the walls between universities, strengthens International communication and cooperation in education, and provides a rich and convenient platform for multicultural communication around the world. All these bring a unique opportunity for Chinese schools to learn from foreign advanced educational concepts and teaching models, introduce high-quality teaching resources and modern teaching approaches from abroad, and improve the quality of personnel training; meanwhile, it also provides an important platform for promoting the international expansion of China's high-quality teaching resources, enhancing the international voice of China's education and improving the

social image of Chinese schools,⁵²⁹ and even helping to promote a better understanding of China and its culture. For instance, Feng Wuzhong, an associate professor from the School of Marxism of the Tsinghua University made the first Chinese MOOC about Maoism and Socialist Theoretical System with Chinese Characteristic on edX in September 2015, attracting more than 5000 learners from over 130 countries and regions, with foreign fans requesting an upgrade to a “pure” English version.⁵³⁰

In addition, many articles mentioned that the emergence of local MOOC platforms such as XuetangX.com has further facilitated the exchange and cooperation among first-class Chinese universities. Yuan Si, Vice President of Tsinghua University, said that the many high-level Chinese universities’ aspirations for student exchange and mutual credit recognition have long been limited by physical conditions, and now such a vision can be realized through MOOCs without any physical movement of students, and since 2013 they have been exploring MOOC-related mutual credit recognition, inter-school cooperation and independent recruitment.⁵³¹

5.2.3.3.3 Openness

Table 24 Frequency of the Theme Openness

Terms	Articles	Frequency
Affordable cost 成本低廉	31	41
Internet+ 互联网+	60	189
Sharing 共享	133	319
Study restrictions 学习障碍	100	184
Technology 技术	206	1099

Unlike the NYT and other reports which focus on the meaning of free of payment or freedom, “openness” in the Chinese coverage more associated with the low access barrier that MOOC enabled with technology and the fact that the Chinese are using this advantage to make education widely accessible.

Because of its advantages of rapid diffusion and dissemination of information

⁵²⁹ GD 12 & GD 118.

⁵³⁰ GD 154.

⁵³¹ GD 9. Original text:“...清华大学副校长袁驷表示, 国内不少高水平大学一直有交换学生、互认学分的诉求, 但由于物理条件所限未能实现, “如今, 不需要学生进行任何物理移动, 这样的愿景就可以实现...目前与 MOOC 相关的课程学分互认、校间课程合作、自主招生等工作已进入探讨阶段...””.

across time and space at a relatively small cost, Internet technology has made it possible for high-quality educational resources to be disseminated regardless of geographic location, thus providing an exogenous space for the development of “Internet + education”.⁵³² The “Internet+ Education”, represented by MOOC, is using the new generation of information and communication technology to improve the efficiency of science communication, allowing different groups of people to enjoy more convenient scientific and civilized achievements.⁵³³

When Tsinghua officially joined edX, becoming one of its first Asian college members, the reporter Deng Hui introduced MOOC as a kind of online education that makes “college dream” within easy reach and recorded the opinions from different Tsinghua staff in his article. For Shi Jinghuan, deputy dean of the Tsinghua University Institute of Education, who regards the creation of online education platform with great significance, “It has turned top-tier university courses which normally could merely serve a few people into a public sharing source, expanding the dissemination of high-quality educational resources and making lifelong learning possible”.⁵³⁴

MOOC, with its moderate learning threshold, easy access, low cost, great autonomy and wide knowledge aspect, creates friendly and favourable circumstances for all people who want to learn and makes lifelong learning possible. From correspondence, radio and television courses to online learning, information technology has emerged as a supplement to mainstream schooling, providing access to those who do not have schooling opportunities. The idea of online courses is not that new, it is MOOC’s characters that highly meet public demand that makes it a real eye-catcher. This American initiated movement is born with the following tabs: elite colleges, outstanding instructors, excellent courses, openness, free of charge, mobility and so on. It is almost the nature of the citizens to pursue an “established brand” which normally refers to high-quality, top service, fine reputation, so does a learner. All learners would like to follow the best instructor in the world if possible, and this is exactly what MOOC tries to offer. In the past century, online courses are often synonymous with poor quality, presented like

⁵³² GD 299. Original text:“...而互联网技术所具有的以较小的成本, 跨越时空限制, 快速扩散、传播信息的优势, 使得优质教育资源可以不受地域所限, 因而为“互联网+教育”提供了一个外因性的发展空间...”.

⁵³³ GD 267. Original text:“...以慕课为代表的“互联网+教育”, 正借助新一代信息通信技术提高科学传播的效率, 让不同人群享用更加便利的科学文明成果...”.

⁵³⁴ GD 1. Original text:“...这让本来只能为少数人服务的一流大学课程变成了一种大众分享, 拓展了优质教育资源的传播力量, 同时还让终身学习成为可能...”.

echoes of a textbook which easily makes learners sleepy. Now, however, the situation is beginning to change. A lot of well-known MOOCs are given by excellent instructors and professors, and the exquisite recording and editing of which are comparable to elaborate TV shows. “People are turning to the internet for opportunities to receive a high-quality education, to take top-notch courses online, or to spread high-quality resources to remote areas. The development of Internet technology, especially mobile terminals, has begun to provide a widespread learning environment, personalized learning options, interactive learning styles, virtual community-based learning ecosystems, and various thresholds for learning have begun to collapse”.⁵³⁵

The reasons for the rapid development of massive online open courses is inextricably linked to its own characteristics. The openness of MOOCs is an excellent embodiment of the universal value of universities, providing the public with more valuable and fair opportunities in the era of increasing internet coverage, freeing people from different countries from the problems of high college tuition fees, inappropriate ages and status to enter university. The easy access and flexibility of MOOCs enable people to learn anytime, anywhere on personal computers, laptops, pads and even smartphones, completely breaking the place and time limitations so that learners are free to adjust to their circumstances and make full use of fragmented time to recharge themselves.⁵³⁶ MOOCs’ abundant high-quality resources and freedom of choice give students great autonomy. In traditional classes, even in distance learning classes, students’ choices are limited by the pressure of exams and credits, which makes some of them resistant to learning. However, MOOCs give learners full freedom of choice. They are the ones to decide what to learn and when to learn and can choose their favourite topics and famous teachers from world-renowned schools for different purposes such as expanding their knowledge and deepening professional accomplishment, getting an insight into the ideas and concepts contained in different teaching styles, curricula and course designs, learning and broadening their horizons from diverse cultures.⁵³⁷

In an article questioning the value of MOOC, GD’s reporter quoted Tsinghua University’s President Cheng Jining’s statement: “Massive Open Online Courses

⁵³⁵ GD 195. Original text:“... 然而现在情况开始变化, 人们开始向网络寻求接受优质教育的机会, 通过网络学习顶尖名校课程, 或将优质资源传播到边远地区。互联网技术特别是移动终端的发展开始提供一个广泛存在的学习环境、个性化的学习选择、交互的学习方式、虚拟社区化的学习生态, 进入学习的各种门槛开始“坍塌”。

⁵³⁶ GD 50.

⁵³⁷ GD 8.

demolish the wall of universities. And we must rethink and reshape the relationship between universities and the society to make universities better fulfil their important function of serving the society” as MOOC creates a possibility for sharing high-quality higher educational resources at low cost, no matter on-campus or off-campus.⁵³⁸ With the continuous development of MOOCs, a vast ocean of knowledge based on virtual platforms is presented to the world. It does not only offer individuals the freedom to roam in the ocean of knowledge, but also brings new vitality to universities, the entire education system, and our world. The public-benefit nature of MOOCs undoubtedly reflects universities’ mission to serve society.⁵³⁹ As one of the beneficiaries of MOOC, Mr. An from Chengdu received a special gift on his 85th birthday – a certificate of accomplishment of “Introduction to Acupuncture” from the MOOC platform ICOURSE163.ORG.⁵⁴⁰ The existence of MOOC is bound to blur the boundaries between formal education and informal learning as it has met up the needs of informal learning while coming as a kind of formal university course. Statistics show that only 7% - 16% of MOOC learners learn for credits, which means for the majority of the people, MOOC is more a platform for the pursuit of the latest knowledge, a communication platform for knowledge, skills, methods and experiences, and a platform for lifelong learning than an approach to get a diploma.⁵⁴¹ With the rapid development of information technologies such as the Internet, artificial intelligence, multimedia information processing, and cloud computing, especially the application of social network-based interaction technology between lecturers and learners and between learners and learning evaluation technology based on big data, the MOOC teaching practice sweeping higher education makes the idea of spreading the world’s best educational resources to the most remote corners of the earth possible, and makes lifelong learning anytime, anywhere no longer far away.⁵⁴² And a learning society is coming since a growing number of people are embracing the concept

⁵³⁸ GD 2. Original text: “... MOOC 拆掉了大学的‘围墙’, 我们必须重新思考并重塑大学与社会的关系, 更好地履行大学服务社会这一重要职能...”.

⁵³⁹ GD 8. Original text: “...它不仅为个人提供了自由遨游的天地, 也为无数高校、整个教育体制, 以及我们的世界带来新的活力。网络公开课的公益性无疑体现了大学服务社会的使命...”.

⁵⁴⁰ GD 212.

⁵⁴¹ GD 15. Original text: “... MOOC 已经不仅仅只是大学正规教育的一种课程了, 还适应了非正式学习的需求... 经过统计发现, 通过 MOOC 拿到学分的比例基本上在 7%到 16%之间... MOOC 不再意味着任何学分, 而是追求最新知识的平台, 一个以追求知识交流、技能交流、方法交流、经验交流的平台, 一个促进终身学习的平台...”.

⁵⁴² GD 2. Original text: “...随着互联网、人工智能、多媒体信息处理、云计算等信息技术的快速发展, 特别是基于社交网络的师生间、学生间的互动技术和基于大数据分析的学习效果测评技术的应用, 这场席卷高等教育的“MOOC 教学实践”让“将世界上最优质的教育资源, 传播到地球最偏远的角落”的理想成为可能, 也让“随时随地”的终身学习不再遥远...”.

of lifelong learning while moving forward together with globalisation.⁵⁴³

5.2.3.3.4 Commodification

Table 25 Frequency of the Theme Commodification

Terms	Articles	Frequency
Profit 盈利	4	4
Business 商业	19	41

As a quasi-public good, education has the characteristics of both a public good and a private good. In China, where public schools are overwhelmingly dominant, education is mainly provided by the state, so there is relatively little coverage of the commercialisation of MOOCs in the GD report.

With the rise of MOOCs in 2012, the mix of the Internet and education entered a phase of rapid growth, and fundamental changes began to take place in the models and the production relations of education. Social capital is entering in a big way, which makes online education the most promising sector with the greatest investment potential. According to the GD's report, there were more than 150 recorded investment cases in 2016 in China, with a total investment of over 150 billion RMB. When the free internet model was widely introduced to education with the large-scale intervention of capital, Generation Z, especially the "Internet natives" born after 2000, gave the Internet a real use in education. At the same time, suggestions on alleviating academic burdens from the MOE, as a follow-up to eliminating exam-oriented education, have greatly reduced or eased the requirements for knowledge learning in primary and secondary schools, the difficulty of examinations and school hours. But along with this comes an increasing demand for after-school sessions since numerous Chinese parents have higher expectations for their children, which opens a huge market for training classes and cram schools and creates excellent opportunities for online education providers.⁵⁴⁴

⁵⁴³ GD 8. Original text: "...构建学习型社会将不再遥远，更多人将秉承终身学习的理念，随着全球化的脚步一起前行..."

⁵⁴⁴ GD 166. Original text: "...2012年伴随MOOC兴起，互联网与教育的结合进入一个快速发展期，教育模式、教育的生产关系开始发生根本性变化...在中国，仅按可查询到的投资个案，2016年就超过了150个，投资总额超过1500多亿元...95后，尤其是00后“互联网原住民”成为教育的主要对象...校外辅导班兴盛，也给了大量在线教育企业极好的市场机会..."

5.2.3.3.5 Pedagogy

Table 26 Frequency of the Theme Pedagogy

Terms	Articles	Frequency
Teachers' role 教师角色	11	18
Future education 未来教育	61	161
Big Data 大数据	65	189
Individuation 个性化	90	161
Learning & Teaching model 教学模式	153	436
Education concept 教育理念	153	392

Refers to the discussion or assumptions regarding the role of educators, the relationships between educators and students, the new approaches and possibilities brought by MOOC, and its impact on teaching and learning.

MOOC seems to be a helpful solution to problems like how to create top-notch innovative talents and liberate faculties of ordinary colleges from repetitive work.

Meanwhile, 123 articles – nearly two-fifth of the total, mentioned MOOC as a new practice of educational innovation or teaching reform in local schools.

As a new knowledge transmission mode and learning style, the birth of MOOC has sent ripples across education. There are many expectations for it, and its emergence has even posed grave challenges to current education in many ways. When the MOOC trend swept through China, it also attracted widespread attention and discussion from all sectors of society, especially the education sector. MOOCs have been in the papers from time to time, and a large proportion of them are contributions from those working in the education sector. It is probably because of this that, unlike the New York Times, Guangming Daily's coverage is more critical and contains much more rethink and questions about MOOCs. As a newspaper from the birthplace of the MOOC movement, The New York Times's reports showed more marvels MOOC achieved in the short time, for example, the great numbers of students that the pioneer MOOCs have gathered. If the MOOC coverage from the New York Times was more of advertising articles, Guangming Daily's articles were promoting MOOCs with its all advantages and challenges while pointing out some overlooked weaknesses and discussing how to make more rational and appropriate use of MOOCs.

A highly representative article is the one written by Dr. Yu Xinjie, an associate

professor of Electrical Engineering from Tsinghua University who is in charge of the Principles of Electric Circuits. In 2013, he began to give his lecture on edX and XuetangX, and attracted more than 18,000 students from over 150 countries and 5,000+ students in the next year when he continued his lecture. Based on his personal experiences in the process of opening and operating the Principles of Electric Circuits, he published an article on Guangming Daily on 29th April 2014. In this article, he generated 6 misunderstandings about MOOC, which are often seen in other articles as well. Here the article is fully translated into English:

“Misunderstanding 1: MOOC is nothing more than “Western TV University”. No matter how amazing MOOC is, as long as a teacher has the students’ lifeblood – homework and examination – at hand, he / she will naturally be followed.

MOOC is flourishing with contingency, but more with inevitability. Firstly, there is a craving for higher education which is both cheap and of high-quality among the students; secondly, benefiting from the recent booming of the Internet and artificial intelligence, big data is able to provide richer information; thirdly, the world’s top universities are competing fiercely in the area of education and human resources, and MOOC is a corollary of the three. From my point of view, as a lecturer of the course Circuit Principles, if I can’t deliver my lecture better than the lecturers from MIT or UC Berkeley do in some ways, how can I keep hold of my students? On a more macro view, the boost of MOOC has rapidly heated up the competition in higher education among the countries in the world. A typical instance is ChinaX, the most popular MOOC from Harvard on edX at present. If we fail to make full use of the international platforms to express our own opinion on China as well as on the world “reasonably, favourably, and modestly”, we are no doubt losing our voice in the competition for the world’s top talent.

Misunderstanding 2: The development of MOOC is similar to big fish swallowing little fish, the strong bullying the weak. The world’s higher education is facing shuffling: a large number of universities will disappear, and teachers will lose their jobs.

Indeed, competition is heating up. MOOC can largely solve the problem of general knowledge transfer, but it cannot replace the university functions of talent cultivation, scientific research, social service and cultural heritage. Even in terms of talent cultivation, general knowledge transfer is merely one aspect of training talent. Furthermore, even in classroom teaching, MOOC can possibly be a helpful tool for colleges and universities to change the current “lecturer teaches, students listen to”

classroom mode, and turn back to a full student-teacher-interaction mode. Thus, MOOCs will undoubtedly be an effective measure to improve the quality of China's higher education. Of course, those purely focusing on theoretical education but without any research strength, industry support or sufficient practical session may have to worry about themselves, because MOOC is just killing their lives.

Misunderstanding 3: The production of MOOC is nothing more than recoding a normal lecture with elaborate post editing and processing.

This kind of production is so-called "course moving". In other words, online learners are watching how a teacher is teaching his/her students as a third party. However, learning via the internet is quite different from learning in a classroom. Statistics show that most people will pay continuous attention to new content for no longer than 15 minutes. In a classroom, students can do no more than zone out as they cannot freely move in the classroom. In an online learning environment, it is impossible for students to follow the lecturer for a long time as there are too many temptations on the internet. Therefore, it is necessary to split the videos and knowledge a MOOC contains while trying to make learners feel like they are in a real classroom in which a teacher is giving a lecture in order to enhance their immersion. Many skills are required for a MOOC: at which weekly frequency of appearance in the videos will the students become aware of the teacher's presence; at which minute after the beginning of the video should a topic-related quiz which plays a similar role to questions in the classroom be given; updating course content regularly just like normal weekly courses do; setting up deadlines for homework every week, the same way to get grades at school; discussing in the forum as students and teachers usually do in a real class; getting certificates by completing courses and passing examinations which normally lead to credit points in reality.

Misunderstanding 4: MOOC is actually online education full of new technologies. It is a "heavenly thing" and has little to do with ordinary classroom teaching.

Naturally, you can always keep MOOCs in the air while a growing number of people are trying to find a way for MOOCs to land, that is, how to make MOOCs positively influence the ordinary classroom more. For instance, many local universities have introduced Tsinghua's MOOC to their students. Those who complete the courses from Tsinghua online, and have success in the final examinations at their home universities will obtain valid credit points. Some universities even recognise the Tsinghua MOOC credits their students acquire online.

Misunderstanding 5: MOOC is only suitable for presentational or introductory courses.

In fact, the most popular courses on the three mainstream platforms, namely, edX, Coursera, and Udacity are on Circuit and Electronics, Artificial Intelligence and Machine Learning. These courses are far less presentational or visualised than a History course, Landscape Architecture, Music or Architecture, etc., and are generally off red for sophomore, senior and even graduate students. Therefore, it is unreasonable to judge MOOCs as born with low quality. The most wonderful thing about MOOCs is that they make many hard courses lively and fascinating. According to our experience, MOOC is suitable for all contents with large volume, wide range or that involve cutting-edge technology.

Sure, MOOCs are given by top lecturers/professors from top universities and are well processed with pleasant interfaces. Some parts of them can even be viewed as a movie documentary. The form of MOOC can indeed reduce the difficulty of learning, but never forget that the biggest constraint students have regarding learning is procrastination and not a difficulty. In a physical classroom, help from teachers and classmates can suppress procrastination to some extent. Although some excellent MOOCs have taken various cohesive measures to mimic a physical classroom, students are learning online individually after all. In addition, since online learning often occurs in leisure time, learners start to procrastinate when they encounter difficulties, busy work or heavy study after the initial excitement. This is an important reason for the low completion and pass rate of MOOC”.⁵⁴⁵

It is clear that Yu thinks MOOCs should be treated with neither too much fear nor too much neglect. The appearance of MOOC is an inevitable product.

Online courses, as a developing new thing, ensure fairness in education and improve the quality of education to some extent, making education transcend the boundaries of time and space and striving to share high-quality education for all. However, while the networked nature of MOOC gives it a born advantage of openness, it is also doomed to the inherent shortcomings it cannot overcome and which stops it from replacing traditional basic education.

Education is not just a simple transfer of knowledge but also an on-site experience of interaction. Teaching requires zero contact between teachers and students, but the

⁵⁴⁵ GD 27.

Internet is an untouchable virtual world. The student-student and instructor-student interactions existing in traditional schools cannot easily be copied into online education. “Children are sent to traditional place-based schools not only for systematical knowledge acquisition but also for the social relationship shaped by their interactions with others. This kind of social relationship has huge potential value, especially those developed in colleges. The sincere, strong and deep friendships generated by the interactions with one’s instructors and classmates will last a lifetime. In top-tier universities such as Harvard University, Oxford University, Peking University and Tsinghua University, relationships with one’s classmates and alumni are quite important social resources. The social network formed during online learning is much more fragile,” reporter Hu Lele reviewed.⁵⁴⁶ The lack of emotions conveyed in real-person interactions also makes online interactions often do more with less. Yu Minghong, the founder and president of New Oriental Education & Technology Group Inc., reckoned that the on-site experience and communication is much more effective than online interaction: “I always chatted online to encourage my child when he was studying abroad, but with little effect. Now, he is studying in China. Whenever he feels frustrated, I will pat him on the head and hug him, and the problem may be solved.”⁵⁴⁷

Education is not just a simple transmission of knowledge, but more about the understanding of life, the normalisation of one’s will and behaviour and the inspiration of the soul. In ancient academies, what the wise imparted on their followers was wisdom, while the modern higher education, due to the high differentiation and diversification of modern professions, is over-specialized to teach students “a bare knowledge of some branch of science or literature”.⁵⁴⁸ On 16th September 2014, GD published the opening speech of Fudan University, in which President Yang Yuliang first quoted Albert Einstein’s opinion that

“It is not enough to teach a man a speciality. Through it, he may become a kind of useful machine but not a harmoniously developed

⁵⁴⁶ GD 56. Original text:“...我们把孩子送到传统的实体学校中进行教育，不仅是让他们系统地学习文化知识，还需要让他们与其他师生互动，形成社会化的关系。这种社会化关系具有巨大的潜在价值，尤其是在大学里，学生与老师和同学交往所形成的真实的、牢固的、深厚的情谊会让人受用终身...同学和校友关系是非常重要的社会资源。而在网上大学里形成的社会化关系网则脆弱很多...”。

⁵⁴⁷ GD 55. Original text:“...孩子在国外读书时，我总是上网聊天鼓励他，但效果甚微。现在，孩子在国内学习，每当他遇到挫折，我就会拍拍他的头，拥抱一下，问题可能就解决了。”俞敏洪指出，现场体验与沟通所产生的效果，远远超过了网络交流...”。

⁵⁴⁸ Whitehead, A. (1959). *The Aims of Education*. *Daedalus*, 88(1), 195.

personality. It is essential that the student acquire an understanding of and a lively feeling for values. He must acquire a vivid sense of the beautiful and of the morally good. Otherwise, he – with his specialized knowledge – more closely resembles a well-trained dog than a harmoniously developed person. He must learn to understand the motives of human beings, their illusions, and their sufferings, in order to acquire a proper relationship with individuals, fellow men and the community... These precious things are conveyed to the younger generation through personal contact with those who teach, not – or at least not in the main – through textbooks.”⁵⁴⁹

To argue that higher education aims to educate people instead of producing machines and people first is always the principle of education. Then he applied Bertrand Russell’s point of view to argue that online courses like MOOCs provide new ways to acquire knowledge, but cannot replace the function of university: “A teacher is not merely a disseminator of knowledge, but rather the one who guides students to comprehend knowledge by themselves. And the essence of learning is to acquire the wisdom that lies behind all kinds of knowledge.”⁵⁵⁰

Zhong Binglin, president of the Chinese Society of Education, stressed that curriculum teaching is not exactly the same as education. The ultimate goal of education is to cultivate talents with all-round developments. Fine culture traditions, school spirit and academic atmosphere will imperceptibly influence the growth of students, playing a crucial role in cultivating their comprehensive literacy as well as in developing their qualities and abilities in social development, interpersonal and public relations.⁵⁵¹ Chen Jun, President of Nanjing University, also argued at the conference *Quality Assurance in Higher Education: International Experience and China Exploration* that fine guidance on emotions, behaviours and values which helps to develop healthy personalities of talents is obviously not something that can barely be realised through coursework aiming

⁵⁴⁹ Einstein, A. (1952, October 5). *Education for Independent Thought*. The New York Times. Excerpted from *Ideas and Opinions*. New York: Three Rivers Press, 1982, 66.

⁵⁵⁰ GD 45. Original text: “...教师不应该仅仅是知识的传播者，教师应该做的是引导学生自己去领悟知识。学习的本质就是获取隐藏在各种知识背后的“智慧”...”。

⁵⁵¹ GD 55. Original text: “...教育的终极目标是培养全面发展的人，优良的文化传统、校风、学风将对学习者成长成才产生潜移默化地熏陶作用，对学习者综合素质的养成以及社会发展性、人际关系和公共关系等素养及能力的培养至关重要。从这个角度来看，基于互联网的教学模式还不能完全取代学校教育...”。

for knowledge and skill learning.⁵⁵²

Given all that, the possibility that the internet-based teaching models would completely replace school education seems to be little. Instead, these new teaching ways can be valuable attempts to create and realise personalised education and differentiated teaching. For long, although all agreed that teachers, when teaching, ought as far as possible to teach students according to their aptitude and abilities, the “one size fits all” teaching method is generally adopted in fact. The internet-based MOOC has powerful interactive functions and rich high-quality learning resources, which enable learners to acquire as much knowledge as possible the first time and then learn at their pace at any time and any place. The interactive online courses not only play the role of teaching but also collect feedbacks from the learners, which makes it possible to adjust course content according to students’ abilities and requirements. Once the intelligent learning guidance system based on big data analysis and academic evaluation system is developed, the teaching philosophy and talent training model with learning as the centre and students as the main body will be truly established, and diversified personalised teaching will be able to be realised under scale. Therefore, it is necessary to make effective use of online courses, giving full play to their advantages, and taking online courses as a supplement or supplementary form of traditional education at the basic education stage.⁵⁵³

5.2.3.3.6 MOOC as Experimental

Table 27 Frequency of the Theme MOOC as Experimental

Terms	Articles	Frequency
Corona Epidemic 新冠疫情	24	300
Modernization of National Defence and the Armed Forces 国防现代化	25	535
Innovation & Entrepreneurship Education 创新创业教育	31	339
Life-long Learning Society 终生学习型社会	39	49
Ideological & Political Education 思政教育	83	1027

⁵⁵² GD 53. Original text:“...“但优秀人才的培养质量不仅仅要注重知识和技能的学习，更要重视情感、品行和价值观的塑造，健全人格的养成，这些方面显然不是仅仅靠课程学习就能完成的。”陈骏强调...”

⁵⁵³ GD 252. Original text:“...要有效利用网课，发挥其优势，将网课作为基础教育阶段传统教育的一种补充或辅助形式...”

Reporting about the diverse innovative application of MOOCs with Chinese characteristics (content such as MOOC for Ideological and political education, MOOC for against the Corona epidemic, MOOC for helping with the establishment of a life-long society, MOOC for military education, etc.).

From the perspective of national governance, MOOC seems to have been a novel effective instrument for those in power to help with China's actual problems and promote the popularization of the country's core values, thereby maintaining social stability. Here, customized MOOCs effectively assume the functions of education, guidance and cultural edification, subconsciously strengthening the public's, especially the young generation's, sense of national identity, belonging and national pride.

In 85 articles, MOOCs are utilized as the latest method for ideological and political education, and 24 of them refer to the theme education "staying true to our founding mission", which was first introduced in the 19th Communist Party of China National Congress. In these articles, MOOC is not the main focus, but is mentioned as an example of the local party organization's efforts to study, disseminate and act on the principles set forth at the Congress:

"The East China Jiaotong University Party Committee took the lead in establishing teaching and research teams for learning Xi Jinping's thoughts on Socialism with Chinese Characteristics for a New era in Jiangxi universities, with a research group of more than 30 persons selected from the whole university. By decomposing Xi's major theme into several 'micro topics', collectively preparing lectures, producing corresponding MOOCs, compiling teaching materials and conducting topic-orientated researches, this group tries to create both online and offline 'golden courses' in the ideological and political area to make the latest innovative theoretical achievements be known by all the people."⁵⁵⁴

Tsinghua University, a leading Chinese university, acted also as a pioneer in using MOOCs for ideological and political education. "It developed four bachelor-level MOOCs as one of their attempts to deepen its reform of ideological and political education, and continued to launch the campaign on the theme of "striving for another century for our Chinese dream. A large number of its graduates aspire to 'go to the place

⁵⁵⁴ GD 277. Original text: "... 华东交通大学党委在江西高校率先成立“习近平新时代中国特色社会主义思想概论教研室”，从全校选拔师资力量，组成 30 余人的教研室师资队伍，将习近平新时代中国特色社会主义思想“大主题”分解为若干“微专题”，采用集体备课、录播慕课、编写教材、分专题开展研究等方式，推进思政“金课”的“线下线上”全覆盖，推动党的创新理论成果“飞入寻常百姓家”...”.

where the country needs them most”⁵⁵⁵.

In 2019, “Xuexi Qiangguo” (Chinese: 学习强国, literally study strengthens the nation) was launched as a comprehensive and innovative learning platform by the Publicity Department of the CPC Central Committee, with Xi Jinping Thought on Socialism with Chinese Characteristics for a New Era and the guiding principles from the 19th National Congress of the CPC as the main content. As an authoritative learning platform for party members and cadres designated by the CPC, the platform aggregates a large number of free resources including periodicals, ancient books, open courses, songs, operas, movies and books, and is designed in both website and mobile app forms. It has more than 100 first-level columns in dozens of sections, such as “New Thoughts”, “The 19th National Congress of the CPC”, “Culture”, “MOOCs” and “Global Vision” are on its website Xuexi.cn, while over 30 channels like “Learning” and “Video Learning” are set on its mobile app. Covering up-to-date information and resources in politics, economics, culture, society, ecology and other aspects, the platform, in the words of Mr Wu Meisheng, a 66-year old villager and a Party member for more than 20 years, is “open to everyone who is interested, and enables everyone to learn on it”⁵⁵⁶.

Xuexi Qiangguo, on the one hand, is a typical case of applying MOOC as an ideological tool, on the other hand, MOOC here acts as an important channel for public culture and science education. And it is not only the case of MOOC enriching citizens’ spiritual and cultural life. A grassroots example is, Ningbo Cultural Center created a series of Art MOOCs of OL Urban dance on its platform Art Popularization to enrich the cultural and sports life of the white-collars living in the city.⁵⁵⁷

In special times, MOOCs are even applied for a more significant role. The best example could be the MOOCs launched at the beginning of 2020 against the Covid-19. In 20 GD reports, MOOC is mentioned along with other measures as countermeasures

⁵⁵⁵ GD 172. Original text:“... 深化思想政治理论课改革, 率先实现本科生 4 门思政课进入慕课平台, 持续开展“行健新百年, 共筑中国梦”主题教育, 一大批毕业生立志“到祖国最需要的地方建功立业”...”.

⁵⁵⁶ GD 234. Original text:“... “学习强国”学习平台是由中宣部组织建设, 以习近平新时代中国特色社会主义思想 and 党的十九大精神为主要内容的综合性创新性平台, 是党中央确定的党员干部权威学习平台, 由 PC 端、手机客户端组成。平台 PC 端有“学习新思想”“十九大时间”“学习文化”“学习慕课”“环球视野”等十几个板块 100 多个一级栏目, 手机客户端设有“学习”“视频学习”等板块 30 多个频道, 聚合了大量可免费阅读的期刊、古籍、公开课、歌曲、戏曲、电影、图书等资料。...吴梅生赞不绝口: 这个平台人人可参与、人人能学习...”.

⁵⁵⁷ GD 224. Original text:“... 为吸纳更多年轻人加入到广场舞行列中来, 宁波市文化馆依托“一人一艺”云平台自主研发的“OL 城市舞蹈系列艺术慕课”, 通过时尚的音乐、动感的舞步和职场的设定, 让都市白领群体迅速成为时尚广场舞的拥趸...”.

during the Corona epidemic.

In February 2020, the MOE China published a Guiding Opinions on Organizing and Managing Online Teaching for College Students in The Fight Against Coronavirus (hereinafter Opinions), requiring all high-quality online courses and virtual simulation experiments teaching resources to be freely opened for universities nationwide. The Opinions issue a clarion call to guarantee online teaching activities for college students amid the epidemic prevention and control period with a government-led, university-based, and social-participated approach. Colleges and universities should make full use of MOOCs and high-quality online educational resources at the provincial and school level, and implement online teaching and learning activities based on the support of platforms of MOOCs and experimental resources, various online learning platforms at all levels and campus learning systems to ensure the teaching progress and teaching quality during the epidemic. For this goal, the Opinions require, on the one hand, the employers to count the workload of teachers who include MOOC or online courses into their normal teaching load. On the other hand, policies for online credit transfer and accumulation are formulated to protect students from the epidemic. As of February 2nd, the MOE has organized 22 online platforms to customize diversified online teaching solutions, and more than 24,000 online courses, including 1,291 national top-level online courses and 401 national virtual simulation laboratory courses, are available for all colleges and universities for free. The courses cover 12 knowledge classifications for undergraduates, 18 subject categories for higher vocational schools and postsecondary specialized colleges.⁵⁵⁸

Under this background, Prof. Yu from Tsinghua University took advantage of the Rain Classroom, a new intelligent teaching solution that combines MOOC, PowerPoint and WeChat, to give live broadcast courses when the whole country is in lockdown.⁵⁵⁹ “On February 2nd, icourse163.org, a Chinese MOOC platform, launched a series of public welfare live broadcasts on the theme ‘Fighting against Covid-19’ to help universities teachers and students across the country with their teaching and learning activities, and to provide psychological adjustment guidance during the epidemic period.”⁵⁶⁰ The Central South University (CSU) took the lead to compile the “Guideline for the

⁵⁵⁸ GD 295.

⁵⁵⁹ GD 296. Guangming Daily, 09.

⁵⁶⁰ GD 300. Original text: “... 2月2日, 爱课程中国大学 MOOC 启动“抗击疫情助教助学”系列公益直播, 为全国高校教师及学习者提供关于教与学的全方位方法指导以及疫期心理调适指导...”.

Prevention and Control of Novel Coronavirus in Colleges and Universities”, which was designated by the MOE as a “pocketbook” for the prevention and control of Covid-19, and further launched the corresponding MOOC on the Chinese platform icourse163.org. The course was recommended by the official Wechat account of the MOE as an open course on the novel Coronavirus and attracted more than 100,000 enrolments. Another guide video on the prevention and control of Healthcare-Associated Infection (HAI), the first professional guide video with detailed explanation on the prevention and control of HAI nationwide, was published on the official WeChat account of Xiangya School of Medicine, CSU, and received widespread attention from medical workers across the country, exceeding 100,000+ hits within a short period of time. Meanwhile, the CSU developed several public courses such as “Covid-19 Diagnosis and Treatment”, “Technical Guidelines for the Prevention and Control of Covid-19” on various online medical platforms to facilitate medical staff learning more about the novel Coronavirus.⁵⁶¹

5.2.3.3.7 The Actuality of MOOCs

Table 28 Frequency of the Theme the Actuality of MOOCs

Terms	Articles	Frequency
Development Direction 发展方向	125	268
Policy 政策	83	206

The actuality of MOOCs refers to reports of the achievements that China has made in developing MOOCs, including the speed, scale and scope of development of MOOCs.

Merged as a new education fashion and possibility, it can be seen that MOOC is highly valued and supported by the Chinese decision-makers such as the university leaders, educational experts and government officials according to the GD coverage. Viewing MOOC as a new battleground of college competition, Chinese educators are going to explore a MOOC development path in line with China’s national conditions. In all 322 investigated Guangming articles, there are 221 articles relating to the official perception, attitude, reactions, policies and practices concerning MOOCs, reflecting the great attention and supports attached to the development and application of local MOOCs by governments, authorities and educational institutions at all levels from various aspects.

⁵⁶¹ GD 320. Guangming Daily, 07.

69 reports concerned the local development and current status of MOOCs and MOOC platforms from different dimensions, while 123 papers introduced 156 local MOOC-based hybrid learning practices.

The National Education Plan (2010 – 2020) is cited five times in *Guangming Daily's* coverage concerning MOOCs since the significant role of information technology in education has long been acknowledged by all sectors of society and is emphasised in Article 19 Section 59 and Section 60 of this national education plan: ... We must attach great importance to information technology as it has a revolutionary impact on the development of education ⁵⁶² ... We should strengthen the development and application of high-quality educational resources, establish open flexible public service platforms for educational resources, and promote the popularisation and sharing of high-quality educational resources... (The State Council of the People's Republic of China, 2010, Shen, 5th October 2013, Shang, 18th November 2013, Ma, 4th August 2015, Zhang, 15th November 2016; GD, 16th April 2019).⁵⁶³ The MOE plans to develop 1,000 high-quality open video courses, the first 100 in 2011 and 900 from 2012 to 2015. The Department of Higher Education has listed the development of high-quality open video courses as one of the routines of university teaching work.⁵⁶⁴

According to *Guangming Daily*, 13 reported education forums or conferences organised by national educational associations or top Chinese universities have taken MOOC as the main topic. In its early articles, *Guangming Daily's* correspondents described how the Chinese education workers and industry were gathered to prepare themselves for the coming of MOOC: "Although all these took longer to come to China, MOOC's stimulation of higher education is continuing to ferment. On 3rd June 2013, Tsinghua University held a large-scale online education forum. More than a hundred people including government departments, edX organisations, domestic and foreign experts and scholars gathered together to discuss the rules, models, and systems of the new generation of online education in-depth, and jointly find out what measures

⁵⁶² State Council, PRC. (2010). *Outline of the National Medium and Long-term Programme for Education Reform and Development Plan (2010-2020)*, Article 19 Section 59. Original Text: "...信息技术对教育发展具有革命性影响, 必须予以高度重视...".

⁵⁶³ State Council, PRC. (2010). *Outline of the National Medium and Long-term Programme for Education Reform and Development Plan (2010-2020)*, Article 19 Section 60. Original Text: "...加强优质教育资源开发与应用...建立开放灵活的教育资源公共服务平台, 促进优质教育资源普及共享...".

⁵⁶⁴ GD 8. Original text: "...十二五期间, 教育部将建设 1000 门精品视频公开课, 其中 2011 年建设首批 100 门, 2012 年至 2015 年建设 900 门, 高教司已将精品视频公开课建设列为高校教学建设的常规工作之一...".

universities should take when implementing MOOC”.⁵⁶⁵ In December of the same year, when the first China Education Information Industry New Year Forum was held at Tsinghua Science Park, “over 200 university representatives from more than 100 universities across the country and 100+ enterprise representatives from more than 10 leading companies in the industry sat together to discuss the development trend of MOOC...”⁵⁶⁶

A report on 24th June 2014 shows some main concerns in a local MOOC forum: “The two-day ‘2014 China University MOOC Development Forum’ under the theme of ‘Open a New Era of MOOC Learning’ was held in Beijing. Dozens of experts and scholars in the fields of science & technology and education gathered from around the country, focusing on how Chinese universities should respond to MOOC competition from prestigious foreign universities, and how to integrate Chinese universities’ characteristics with MOOC localisation.”⁵⁶⁷

In this context, the first Chinese MOOC platform XuetangX was designed with high expectations that it would be “a platform which rooted in China but open for the world. The education department will work on an online education system for lifelong education in system design of inter-school credit mutual recognition in order to improve the quality of higher education in China”, said Zhang Daliang, director of the Department of Higher Education of the Ministry of Education.⁵⁶⁸

With the efforts of all parties, China’s MOOC development is at the forefront of the world by the first season of 2018. According to the statistics of the Ministry of Education of the PRC, the number of MOOCs in China has reached 5,000; the number of people who study with MOOCs has exceeded 70 million, including college students and social learners; more than 11 million college students have obtained MOOC credits and approximately 50,000 teachers have participated in MOOC construction and application

⁵⁶⁵ GD 2. Original text: “...对中国而言, 尽管这一切有些“姗姗来迟”, 但其对高等教育的刺激正在持续发酵——2013年6月3日, 清华大学召开大规模在线教育论坛, 政府部门、edX组织、国内外专家学者等百余人共聚一堂, 深入讨论新一代在线教育的规律、模式和制度, 共同寻找大学的应对之策...”

⁵⁶⁶ GD 16. Original text: “...来自全国100余所高校的200余位院校代表和行业内10余家领军企业的100余位企业代表, 共同研讨MOOC的发展趋势...”

⁵⁶⁷ GD 35. Original text: “...本次论坛以“开启MOOC学习新时代”为主题展开, 数十位来自全国的科技与教育领域专家学者齐聚一堂, 围绕中国大学如何应对外国大学名校MOOC竞争、如何结合各校特色实现中国大学MOOC本土化等问题进行了对话...”

⁵⁶⁸ GD 9. Original text: “...教育部高等教育司司长张大良表示, 该平台应当是一个立足中国、面向世界的教育平台, 未来教育部门将从校际学分互认等制度设计角度探索终身教育要求的在线教育管理体系, 提高中国高等教育质量...”

training. China plays a leading role in the total number of MOOCs, participating schools and learners.⁵⁶⁹

⁵⁶⁹ GD 212. Original text:“... 教育部的数据显示, 目前, 我国上线慕课数量达到 5000 门, 高校学生和社会学习者选学人数突破 7000 万人次, 超过 1100 万人次大学生获得慕课学分, 中国高校慕课总量、参与开课学校数量、学习人数均处于世界领先地位...”.

6 The Different Paths of MOOCs in the US and China

The vastly different coverage of MOOCs by the American New York Times and the Chinese Guangming Daily - almost three years of hype here, almost ten years of more or less continuous coverage of an innovative teaching method there - suggests that there are great differences in the development of MOOCs and in the extent to which MOOCs are influencing the higher education landscape of the two countries. MOOCs in the two countries have been moving in their own directions.

6.1 MOOCs in the US

Ten years after professors Sebastian Thrun and Peter Norvig from Stanford University launched their free course “Introduction to Artificial Intelligence”, the elite universities Harvard, Stanford and MIT have remained true to the idea of offering selected courses in the form of MOOCs. To this day, these universities in particular still offer a relatively large number of MOOCs compared to other US universities. This is mainly realized via the MOOCs platforms Coursera and edX and occasionally also via the platform Udacity founded by Sebastian Thrun. According to Class Central⁵⁷⁰, the top ten US universities in the 2020 Academic Ranking of World Universities⁵⁷¹ currently have the following number of MOOCs⁵⁷²:

Table 29 Number of MOOCs of the Top 10 US Universities

University	Number of MOOCs
Harvard University	201
Stanford University	270
Massachusetts Institute of Technology	364
University of California, Berkeley	68
Princeton University	37
Columbia University	87
California Institute of Technology	22
University of Chicago	14
Yale University	47
Cornell University	14

⁵⁷⁰ Class Central (www.classcentral.com) is a search engine for MOOCs.

⁵⁷¹ ShanghaiRanking Consultancy (2021). *2020 Academic Ranking of World Universities 2020*. Shanghai Ranking.

⁵⁷² The figures are collected based on the information from Class Central (2021). Universities on 15th July 2021.

The fact that Udacity has lost importance as a MOOC provider compared to the other two platforms Coursera and edX is the result of a reorientation of the company. The company's focus is no longer on distributing online courses from renowned universities and generating revenue by selling certificates to successful participants of these courses, but on creating customised learning content for companies and governments looking for ways to train their workforce. Today, Udacity's homepage first addresses its corporate customers and invites them to

- build in-demand skills for their business
- fast-track digital transformation with Academies
- drive skill mastery with hands-on learning and
- track, measure and benchmark actual skill proficiency.⁵⁷³

The refocus on the enterprises as a key customer, which includes companies such as Amazon, Intel and Microsoft, appears to be profitable for Udacity. The 2019 financial year closed with more than \$100 million in revenue and in 2020, the company was able to increase its turnover by 260 per cent.⁵⁷⁴

If business is good at Udacity now, business is very good at Coursera, the other for-profit MOOC provider. Coursera went public on March 31st, 2021. The IPO was reported the following day by the business news agency Bloomberg:

“Online education provider Coursera Inc. rose 36% in its trading debut after its initial public offering priced above a marketed range to raise \$519 million. The shares, which sold for \$33 in the IPO, closed at \$45 on Wednesday in New York trading, giving the company a market value of \$5.86 billion.”⁵⁷⁵

The reason for this success lies in the 2020 business year. While Coursera had paid a total of only \$281 million to its universities and other content providers for a four-year period (2017 - 2020), the company had managed to generate \$293.5 million in revenue from this content in a single year (2020).⁵⁷⁶

As for-profit companies strive to make a profit, the development of the MOOCs

⁵⁷³ Udacity (2021a). *Udacity for Companies*. Udacity.

⁵⁷⁴ Udacity (2021b). *Udacity 2020: The Year in Review*. Udacity.

⁵⁷⁵ Roof, K., & Tse, C. (2021, March 31). *Education Firm Coursera Climbs in Debut After \$519 Million IPO*. Bloomberg.

⁵⁷⁶ Shah, D. (2021, March 9). *Analyzing Coursera's IPO Filing: \$293,5M Revenue, \$281M Paid to Partners, 12K Degree Students*. The Report by Class Central.

platforms Coursera and Udacity is certainly not out of the usual expectation, even if the early statements of the company representatives Sebastian Thrun and Daphne Koller had originally pointed in a more altruistic direction.

A real surprise, however, has been achieved by the MOOC platform edX, which was founded by Harvard University and MIT explicitly and promotionally as a non-profit institution. Thus, on 29th June 2021, the education agency EdSurge announced under the heading “MOOCS”:

“2U Buys edX for \$800M, In Surprise End to Nonprofit MOOC Provider Started by MIT and Harvard”⁵⁷⁷

U2 is a public company listed on the NASDAQ that advises and assists public colleges and universities to offer online degree programmes, particularly by providing the necessary technical infrastructure such as a cloud-based software-as-a-service platform. Regarding future cooperation between edX and its highly respected universities, the report says:

“There will be no immediate changes for partner colleges that have been offering courses on edX, since the company said it will honour their current arrangements and contracts with all partners. One question, though, is whether all the existing university partners will choose to continue with a 2U-owned edX once their contracts come up for renewal, since many colleges have said they chose to work with edX because of its nonprofit status.”⁵⁷⁸

Looking at Sebastian Thrun's call to replace the uneconomic model of the brick-and-mortar university with the economic model of the virtual university, there is little movement in this direction in the USA in 2021. One might expect public universities in particular to pursue this goal to a greater extent. But the example of the University of California Berkley clearly shows the reluctance where MOOCS are concerned. The No. 1 public university in the USA and worldwide currently offers about 10,000 courses in more than 300 degree programmes.⁵⁷⁹ Putting this number of courses in relation to the 68 courses offered in the form of a MOOC, Berkley's MOOC rate is still well below 1 per

⁵⁷⁷ Young, J.R. (2021, June 29). *MOOCS, 2U Buys edX for \$800M, In Surprise End to Nonprofit MOOC Provider Started by MIT and Harvard*. Edsurge.

⁵⁷⁸ Young, J.R. (2021, June 29), *ibidem*.

⁵⁷⁹ UC Berkley (2021). *Academic Programs & Majors*. UC Berkeley.

cent ten years after the launch of MOOCs.

It is along the same lines that in 2021, only 10 US universities offer 23 MOOC-based master's programmes through Coursera (13) and edX (10).⁵⁸⁰ The universities are

- Arizona State University
- Boston University
- Georgia Tech
- Indiana University
- Purdue University
- University of Colorado
- University of Illinois
- University of Michigan and
- University of Pennsylvania⁵⁸¹

The 23 Master's degree programmes are spread across the fields of

- Computer Science and Engineering (8)
- Data Science and Analytics (5)
- Cyber Security and IT Management (1)
- Business and Management (6) and
- Public Health, Social Sciences and Public Sector Management (3).⁵⁸²

Compared to the usual face-to-face and distance learning courses, MOOC-based degree programmes have the main advantage that one can better inform and prepare oneself in advance for the programme in question, as one can already attend individual courses – MOOCs – free of charge before registering for the degree programme.⁵⁸³ However, fees are charged for the Master's degree programmes themselves.

For the six MOOC-based business degree programmes, the fees are as follows:⁵⁸⁴

⁵⁸⁰ Currently, 23 of the 70 MOOC-based degree programmes offered worldwide come from American universities. For more details, see Ledwon, H. (2021, May 25). 2021: 70+ Legit Master's Degrees You Can Now Earn Completely Online. The Report by Class Central.

⁵⁸¹ Ledwon, H. (2021, May 25), ibidem.

⁵⁸² Ledwon, H. (2021, May 25), ibidem.

⁵⁸³ A comparison between MOOC-based study programmes and conventional distance learning programmes can be found at Shah, D. (2018, October 10). *5 Ways MOOC-Based Degrees Are Different from Other Online Degrees*. Edsurge.

⁵⁸⁴ Ledwon, H. (2021, May 25), ibidem.

Table 30 Tuition Fees of the Six MOOC-based Business Degree Programmes (Full Programme)

Master Programme	University (via Provider)	Tuition Fee
Leadership: Service Innovation	University of Queensland (edX)	17,914\$
Supply Chain Management	Arizona State University (edX)	18,000\$
Business Administration	University of Illinois at Urbana-Champaign via Coursera (Coursera)	20,564\$
Accounting	Indiana University via (edX)	21,000\$
Business Administration	University of Illinois, Urbana-Champaign (Coursera)	21,744\$
Business Administration	Boston University (edX)	24,000\$

With tuition fees ranging from about \$18,000 to \$24,000, it certainly cannot be said that the cost benefits of teaching via MOOCs predicted by Sebastian Thrun (*“the same quality of education ... for about 1 to 2 percent of the cost”*) will be passed on to the students in 2021.

This raises the question of whether the offer of MOOCs has at least helped to stop the rapid increase in tuition fees for university programmes that was observed in the past in the USA. Let's take the tuition fee of the University of California Berkley as an example. While the one-year fee was \$31,022 in 2010, the university now charges \$41,196 from its students ten years later.⁵⁸⁵ But if tuition fees continue to rise not only at Berkley but at all colleges and universities in the US, the amount of debt incurred from taking out loans to finance studies inevitably rises as well. While the average student loan debt in 2010 was \$25,250⁵⁸⁶, the amount is now \$37,172.⁵⁸⁷

On the website of Nitro College there is a “clock” that shows the current student loan debt in the USA. On 15th July 2021, at 12:00 PM, the clock showed the figure of \$1,878,068,979,227.36.⁵⁸⁸

In the same place, the total debt from credit cards of about \$882,600,000,000.00 and from car purchases of about \$750,000,000.00 are cited for comparison.⁵⁸⁹ Meanwhile, student loan debt exceeds the sum of these two types of debt, which are traditionally very

⁵⁸⁵ Collegecalc (2021). *Cost to Attend University of California Berkeley*. Tuition History.

⁵⁸⁶ Institute for College Access & Success (2011, November 3). *Student Debt and the Class of 2010*. Institute for College Access & Success.

⁵⁸⁷ Nitro College (2021). *Average Student Loan Debt in the U.S. 2021 Statistics*. Nitro College.

⁵⁸⁸ Nitro College (2021), *ibidem*.

⁵⁸⁹ Nitro College (2021), *ibidem*.

high in the US. And the student loan debt clock is still ticking.

If one wonders why MOOCs have not changed this trend at all, one possible answer might be that as long as US higher education is a business for the main players, they will try to profitably integrate educational innovations into this business. In the case of the innovative “MOOCs”, this seems to work very well until 2021.

6.2 MOOCs in China

After six years of development since its inception in 2013, China ranked first in the world in terms of the number of MOOCs and the scale of MOOC applications in 2019.⁵⁹⁰ Here we listed the number of MOOCs provided by the Top 10 Chinese universities according to the 2020 Academic Ranking of World Universities, and the data are collected from XuetangX, iCourse164, CNMOOC, the three major MOOC platforms in China.

Table 31 Number of MOOCs of the Top 10 Chinese Universities

University	Number of MOOCs ⁵⁹¹		
	Xuetang X	iCourse163	CNMOOC
Tsinghua University	394	-	-
Peking University	227	119	21
Zhejiang University	77	247	3
Shanghai Jiao Tong University	62	95	782
University of Science and Technology of China	23	15	24
Fudan University	80	61	4
Central South University	102	80	1
Harbin Institute of Technology	89	130	66
Huazhong University of Science and Technology	64	103	-
Nanjing University	57	135	-

⁵⁹⁰ Wang, X. (2019, April 14). 我国上线慕课课程数量超12000门数量和应用规模居世界第一[More than 12,000 MOOCs, China ranks first in the world in terms of number and scale of application of MOOCs]. CRN.

⁵⁹¹ The Number of MOOCs of the 10 universities are collected based on the information from XuetangX.com, iCourse164.com and CNMOOC.com.

Obviously, just like the top US universities, leading Chinese universities offer a significant number of MOOCs, and far more in total than the US. In terms of individual numbers, the top 3 Chinese universities do not offer appreciably more MOOCs than their American counterparts. But the average number of MOOCs of the Top 4 -Top 10 Chinese universities is substantially more than that of the Americans. Perhaps one of the major reasons for this phenomenon lies in the different dynamics that underpin the development of MOOCs. In the US, the initiation, investment and commitment in MOOCs has been largely driven by private colleges and universities and companies, and a business model that can achieve effective profitability is a key driver to sustain MOOCs going forward.

In China, the development of MOOCs is a joint effort between the private and official sectors. Originally spread by Chinese netizens and individual companies, the MOOC movement in China was driven from the top-down by the national authorities after a well-informed survey and great deliberation. China's education sector sent an Open Education Resources delegation to the US and Japan eight months before high-level Chinese universities like Tsinghua and Peking University began to offer courses on internationally renowned MOOC platforms. One month after they joined, the Ministry of Education held a seminar on online open education and higher education reform, which made good institutional arrangements in terms of top-level design; later, China's first MOOC platform went online. An important reason for the increasing number of MOOCs in China is the systematic expansion of this new form of education by predominantly public universities, which receive varying levels of fiscal expenditures from the central and local governments annually. It means that it is more important for these institutions to strive to improve the quality of education to meet the needs of local development and the requirements of the governments at all levels, as opposed to making profits.

Official Policy Support & Management

In April of the following year, the Ministry of Education established the Ministry of Education Online Education Research Centre at Tsinghua University, and a number of local MOOC platforms started offering online services. In 2015, the *Opinions of the Ministry of Education on Strengthening the Application and Management of Open Online Courses in Higher Education Institutions* was issued, suggesting that the construction of MOOCs should be based on the principle of “Universities as promoters, Government as supporters, Society as contributors”, strengthening the application and sharing, and

enhancing the standard construction.⁵⁹²

It is clear that from this period onwards, MOOC has been implemented as part of China's education power plan, particularly in terms of improving access to quality education and promoting equity in education. With the further development of MOOCs in China, more MOOC-related policies and institutional safeguards were introduced.

In June 2016, the Guiding Opinions on Deepening Educational Teaching Reform in Universities under the Central Government was issued, explicitly requiring universities under the ministry to vigorously promote the construction of online open courses and provide special funding and policy protection; in September of the same year, the Opinions on Promoting the Recognition and Conversion of Higher Education Credits was issued, proposing that organized learning of online open courses by students should be included in credit management.

Starting from late 2017, in order to further promote the construction and application sharing of online open courses and the deep integration of information technology and education teaching, the Ministry of Education launched a national-level MOOC accreditation process and announced the first 490 national-level MOOCs at the end of the same year. Courses recognized as national-level MOOCs have to be continuously available and open to universities and society for no less than five years. During this period, course teams are required to continuously provide teaching services and update and improve the course content. The results of the follow-up monitoring and comprehensive evaluation of the online operation, practical application and teaching results of the national-level MOOCs will be published at www.chinaooc.com.cn. And courses that fail to complete the requirements will be disqualified.⁵⁹³ As of August 2019, more than 1000 universities were offering a total of 15,000 MOOCs on various online platforms, and the number of learners has hit 270 million.⁵⁹⁴

In recent years, the State has repeatedly proposed the development of “Internet + Education” to promote the informatisation of education. In July 2020, the Opinions of the

⁵⁹² MOE, PRC. (2015, April 16). 教育部关于加强高等学校在线开放课程建设应用与管理的意见 [Opinions of the Ministry of Education on Strengthening the Application and Management of Open Online Courses in Higher Education Institutions]. Ministry of Education of the People's Republic of China.

⁵⁹³ MOE, PRC. (2017, December 29). 教育部办公厅关于2017年国家精品在线开放课程认定结果的通知. [Notice of the General Office of the Ministry of Education on the Recognition Results of the National-Level MOOCs in 2017]. Ministry of Education of the People's Republic of China.

⁵⁹⁴ Li, X. (2019, November 11). 在线教育：走向“口碑竞争”时代 [Online education: towards the era of "word-of-mouth competition"]. People.cn.

National Development and Reform Commission, the Office of Cyberspace Affairs Commission, and the Ministry of Industry and Information Technology on Supporting Sound Development of New Business Forms and New Modes, and Activating the Consumer Market to Drive and Increase Employment clarified that:

“It shall be allowed to purchase and properly use qualified and excellent online courses and resources from private enterprises and the market, explore the inclusion of them in daily teaching programmes at certain education stages, and pilot them in selected schools. Larger input and more trainings of teachers in this regard shall be encouraged. Pilot programmes shall be conducted on classroom teaching based on online intelligent environment, and further propagate the application of “Three Classrooms” (namely, Specially Delivered Classrooms, Famous Teachers Classrooms, and Renowned Schools' Online Classrooms). The rules and standards for online education in terms of intellectual property protection, content supervision, and market access shall be improved, so as to ensure the supply of high-quality online education resources. (The Ministry of Education shall take the lead and be responsible)”⁵⁹⁵

To further improve the regulatory system to promote the supply of high-quality educational resources, projects like the “MOOC to the West” Programme, the New Long March of online courses, which aims to bring quality MOOCs to more universities and students in western China, have created and administered 328,000 online courses. The total attendance of universities and colleges from western China for training have reached 16,000, with 590,000 teachers trained and 210 million students in attendance. Meanwhile, MOOCs are widely provided on various mainstream platforms. Over 1,000 MOOCs can be found on the website of Xuexi Qianguo, an App released by the Propaganda Department of the Chinese Communist Party, and 700 courses are available on its smartphone terminal. More than 3000 MOOCs are offered on Junzhi Zaixian, an App of the Central Military Commission, the number of officers and soldiers who study with the

⁵⁹⁵ Opinions of the National Development and Reform Commission, the Office of Cyberspace Affairs Commission, and the Ministry of Industry and Information Technology on Supporting Sound Development of New Business Forms and New Modes, and Activating the Consumer Market to Drive and Increase Employment.

App has exceeded 2 million and the attendance has surpassed 10 million.⁵⁹⁶

University Curriculum Alliance with Mutual Recognition of Credit Points

In addition to the continuous introduction of various policies and institutional guarantees, the emergence of various inter-school curriculum alliances is also conducive to promoting the development of MOOCs. From the beginning of the development of MOOCs in China, a number of universities have started to jointly explore the road of Chinese MOOC development and voluntarily formed a non-profit, open course consortium under the guidance of education authorities. These alliances have promoted the development of Chinese-style MOOCs, and at the same time, the vigorous momentum of MOOCs has promoted the development of alliances, with the two intertwining and blending. Many alliances are cross-regional, cross-school and cross-professional organisations, greatly accelerating the construction of joint multi-school education and teaching communities, promoting the rapid rise of shared online teaching and online collaborative situations, and creating a whole new model of education and teaching. By establishing a hybrid teaching mode based on online video, the Higher Education Curriculum Consortium forms a market-based sharing mechanism for high-quality courses, realises the extensive sharing of high-quality teaching resources, makes up for the shortage of high-quality courses and teachers in universities and promotes their transformation from traditional teaching methods to modern teaching methods.

Shanghai University Curriculum Centre: In April 2012, the Shanghai University Curriculum Centre (<http://www.ucc.sh/edu.cn>) platform, initiated by the Shanghai Municipal Education Commission and joined by more than 30 universities in Shanghai, was established to share high-quality educational resources, promoting teaching mode reform and improving the quality of university teaching. It provides cross-campus course selection, credit exchange and minor study support for students from all member universities, and the credits earned are recognized by all member schools. The first 7 courses were offered from March to June 2013, with 19 teaching points, 81 classes, 80 teaching assistants, 33 teachers, 214 discussion sessions, and a total of 3,189 students taking the courses. Another 14 courses were offered in the second semester, with 5,032 students taking them. The Shanghai University Curriculum Centre is the first of its kind in China alliance organization to teach the curriculum. Nanchang University and

⁵⁹⁶ Yang, S., & Jin, H. (2020, December 13). 慕课正成为推动高等教育变革的重要引擎[MOOC is becoming an important engine to promote higher education reform]. *Guangming Daily*.

Chongqing University also joined the curriculum centre for mutual recognition of credits, testing the waters for the implementation and development of the later East-West University Course Sharing Alliance.⁵⁹⁷

China East-West University Course Sharing Alliance: In April 2013, the East-West University Course Sharing Alliance (hereinafter EWUCSA) was officially established at Chongqing University. Initiated by Chongqing University, the alliance started with 29 Project 211 & 985 universities including Renmin University of China, Beijing University of Aeronautics and Astronautics and Beijing University of Technology. Through cross-school, cross-regional, cross-border and cross-cultural education and teaching, EWUCSA helps to solve the problem of insufficient course selection within universities, realise the sharing of quality resources and mutual recognition of credits between universities in the East and West, improves the quality of teaching in universities and drives the construction of cross-school and cross-regional teaching teams. Zhihuishu.com, a for-credit online course platform, is the service operator platform of the alliance, and 46 million students from over 2,200 universities nationwide have taken courses from the EWUCSA and earned credits as of January 2020.⁵⁹⁸

University Open Online Courses – UOOC: On 12th May 2014, 56 local universities signed a contract to establish the National Local Universities Open Online Course Alliance (hereinafter UOOC Alliance), with Shenzhen University as the chairperson. On 18th September of the same year, the first batch of UOOC Alliance courses was launched. UOOC Alliance is the first platform for sharing high-quality MOOC courses in local universities nationwide. Guided by relevant national policies and based on the principle of co-creation, co-building and sharing, it aims to integrate high-quality teaching resources of local universities nationwide, build large-scale open online courses, form a mechanism for co-building and sharing high-quality courses, provide course learning options and services for students of allied universities and social learners, strive to improve the level of talent training and social service capacity of local universities, and promote the balanced development of higher education in China. At present, UOOC Alliance has 134 member-schools, covering 29 provinces (municipalities and autonomous regions), 69 cities, reaching 3.6 million students and teachers. With 555

⁵⁹⁷ Guan, H., Gao, Q., & Zhang, M. (2014). MOOC 浪潮下的高校课程联盟 [The Allied Courses in Colleges and Universities under the Wave of MOOC]. *Higher Education of Sciences*. 2014 (1), p.48.

⁵⁹⁸ Wang, X., Yang, P. & Shang, J. (2020). 高校在线教育的发展脉络、应用现状及转型机遇 [Development Venation, Application Status, and Transformation Opportunities of Online Higher Education]. *Modern Educational Technology*, 2020(8), p.7.

MOOCs from 68 member-schools, a cumulative total of about 1.41 million students have taken the courses.⁵⁹⁹

China High-level University MOOC Alliance: The establishment of the Alliance is based on CNMOOC, a Chinese MOOC platform independently developed by Shanghai Jiao Tong University in April 2014. The Alliance is an open cooperative educational platform voluntarily established by some high-level universities in China and is a non-profit, open, unofficial, and unincorporated cooperative organization. It aims to build a high-level large-scale, online educational platform with Chinese characteristics, to share teaching resources and mutual recognition of credits among high-level universities in China, to provide quality courses to other universities in China to improve the quality of higher education in China, to provide online course services to the public to enhance the scientific and cultural literacy of citizens and to open up to global Chinese and relevant people in need, disseminate and promote Chinese culture.⁶⁰⁰ By November 2016, CNMOOC has realized credit recognition among over 400 universities.⁶⁰¹

In the following years, the provincial college curriculum sharing alliances with colleges and universities in the province as the main members of the alliance emerged one after another:

- Sharing Platform of College Curriculum Resources in Jiangxi (2014),
- Jilin University Curriculum Sharing Alliance (2015),
- Shandong University Quality Course Sharing Alliance (2015),
- Hainan University Course Sharing Alliance (2016),
- Shaanxi Higher Education MOOC Centre (2016),
- Open Quality Courses Shared Learning Center of Heilongjiang Colleges & Universities (2017), etc.

Meanwhile, a number of distinctive college alliances appeared:

China University Computer MOOC Alliance (2014),

Chinese Medicine University Course Sharing Alliance (2015),

Qingdao Quality Course Sharing Centre for Higher Vocational Education (2015),

Online Open Course Alliance of Petroleum Universities (2018),

First-class Courses Alliance for Financial Education of Chinese Universities -

⁵⁹⁹ UOOC (2021). UOOC- Introduction, on 15th July, 2021.

⁶⁰⁰ CNMOOC (2021). About US, on 15 July, 2021.

⁶⁰¹ Tencent Education, ed. (2016). *上海交通大学好大学在线联合万学教育建设高层次创新创业教育体系[CNMOOC and Wanxue Education jointly build a high-level innovation and entrepreneurship education system]*.

FCCAFE (2019), etc.

Other than various alliances, many universities' academic departments, faculty development centres, information centres, teaching assessment units and other departments are promoting MOOC teaching in their universities. Some Universities have set up higher-level bodies to promote MOOC-based teaching and learning, for example:

- the MOOC Teaching Promotion Office at Harbin Institute of Technology
- the MOOC Research Institute at Shanghai Jiao Tong University
- the Research Centre for Massive Online Education at Tsinghua University

MOOC in Basic Education

In the field of basic education, MOOCs are also widely explored in practice.

In September 2013, East China Normal University established the East China Normal University MOOC Centre (hereinafter ECNU MOOC Centre), an academic organisation to research and develop MOOCs for basic education and teacher education, and to promote the high-quality implementation of MOOCs in various fields. The ECNU MOOC Centre leverages the academic strength of the university to develop high-quality online courses in collaboration with higher education institutions and renowned primary and secondary schools across China, making high-quality educational resources available to the whole society and actively exploring individualised, autonomous and interactive talent development models. At the same time when the MOOC Centre was established, the East China Normal University set up the MOOC C20 Alliance with 20 renowned secondary schools in the country to carry out relevant training, research and promotion work. To date, the C20 Alliance's membership includes 34 high schools, 48 middle schools and 30 primary schools, cooperating with 15 local education bureaus.⁶⁰²

MOOC during the Lockdown

At the height of the COVID–19 lockdown in April 2020, schools were fully closed in 190 countries, and 1.6 billion students were out of school.⁶⁰³ Online education thus has become the main mode in universities all over the world. According to the MOE of China, all colleges and universities across the country have implemented online teaching during

⁶⁰² MOOC C20 (2021). *About Us. East China Normal University MOOC Centre*, on 15th July, 2021.

⁶⁰³ UNESCO (2021, January 25). *UNESCO figures show two thirds of an academic year lost on average worldwide due to Covid-19 school closures*.

Johns Hopkins University, the World Bank, & UNICEF (2021, March 26). *New Global Tracker to Measure Pandemic's Impact on Education Worldwide*.

the epidemic, 1.08 million teachers have offered 1.1 million courses online for a total of 17.19 million times and 22.59 million college students have participated in online learning with a total of 3.5 billion visits.⁶⁰⁴ And by October 2020, there were over 30 major course platforms in China, 34,000 published MOOCs, 540 million on- and off-campus MOOC learners, and 150 million college students have received credits.⁶⁰⁵

In addition, international versions of China's MOOC platforms started to go live during the epidemic in 2020. XuetaangX and iCourse were the first two to launch an international platform in English. XuetaangX currently supports English and Chinese and is planning to support more languages such as Russian, Spanish, French and Japanese in the future, aiming to promote the global sharing of high-quality higher educational resources from China while introducing first-class courses from the global leading universities. The platform supports a variety of online education formats such as MOOC, live streaming, certificates and online degrees.⁶⁰⁶ By May 2020, the first 302 courses in English-language were online, covering eight areas: medicine and epidemic prevention and control, natural sciences, engineering and technology, agriculture and ecology, economy and development, art and design, intelligence and virtual simulation experiments, future-oriented and innovation entrepreneurship.⁶⁰⁷ In December of the same year, Tsinghua University initiated the Global MOOC Alliance with 17 world-leading universities and 3 online education platforms from 14 countries in all 6 continents.⁶⁰⁸ A key objective of the Alliance is to work together to address the opportunities and challenges for global education in the Internet age in the context of the new epidemic.⁶⁰⁹

⁶⁰⁴ Yang, S., & Jin, H. (2020, December 13). 慕课正成为推动高等教育变革的重要引擎[MOOC is becoming an important engine to promote higher education reform]. *Guangming Daily*.

⁶⁰⁵ Hu, H. (2020, December 28). 2020, 中国教育穿越疫情实现裂变.[2020, Chinese education takes a leap forward in the epidemic]. Xinhua news agency.

⁶⁰⁶ Yu, M. ed. (2020, April 21). 首批高校在线教学英文版国际平台面向全球免费开放[The first international platforms for online teaching in universities are open to the world for free]. Ministry of Education of the People's Republic of China.

⁶⁰⁷ Kang, Y., & Liu, L. (2020, May 14). 教育部：我国两项高校在线教学平台入选联合国教科文组织全球教育联盟[MOE: two of China's online teaching platforms were selected for the UNESCO Global Education Coalition]. CCTV.

⁶⁰⁸ Global MOOC Alliance (2021). *Global MOOC Alliance member*, on 15th July.

17 universities: Tsinghua University, Cornell University, CRI (Center for Research and Interdisciplinarity), Mongolian University of Science and Technology, Nanyang Technological University, Peking University, Politecnico di Milano, Rice University, RWTH Aachen University, Saint Petersburg University, Shanghai Jiao Tong University, Tsinghua University, University of Auckland, University of Chile, University of Manchester, University of Nairobi, University of Toronto, Zhejiang University; 3 online platforms: edX, Thai MOOC, XuetaangX.

⁶⁰⁹ Li, R. ed. (2020, December 11). 世界慕课联盟成立 清华大学担任联盟首届主席单位[The Global MOOC Alliance was established, Tsinghua University as the first Secretariat]. Tsinghua News.

In basic education and secondary education, a national online platform *ykt.eduyun.cn* and an on-Air Classroom delivered by China Education Television were open to the public since 17th February 2020 to guarantee learning activities during the lockdown. 27 provinces launched provincial online learning platforms to better serve local students and to make full use of local high-quality resources. Among them, Jiangxi Province developed provincial standards for online courses and established a dedicated team to ensure course quality. The website *ykt.eduyun.cn* has launched 2,115 courses by 12th March, and hit 2,073 million visits by 11th May. The on-Air Classroom offered 12 hours lessons on CETV4 and can be accessed and repeated on various apps.⁶¹⁰

Due to the Covid-19, online education became the only way to learn and teach, forcing teachers to adapt MOOCs from reactive to proactive, stimulating teachers' enthusiasm and creativity in implementing online teaching. At the same time, the large-scale online education activities have compelled students to improve their independent and adaptive learning skills. In order to ensure and realize large-scale online education, from teaching plan implementation, schools and governments have made significant improvements in the delivery of education, flexibly combining a variety of online teaching modes. For example, the "MOOC + Rain Classroom + online meeting" mode in Tsinghua University, the "Spoc + KetangPai (an interactive classroom management tool + live streaming)" mode in Tongji University.

Online teaching has officially been adopted into the teaching system. Policies are gradually being put in place, with education administrative authorities and universities successively issuing a series of documents and implementation methods. Online teaching is counted as teaching workloads, and policies on mutual recognition and conversion of online course credits are being formulated, ongoing teaching regulations are being set up and copyright protection for online teaching is being strengthened.⁶¹¹ Instruction manuals, course standards, staff online training and support teams are being introduced to control the quality of courses. Big Data Analytics is widely used for the precise collection of the

⁶¹⁰ Lin, H. (2020, July 7). 停课不停学：亿万学生 千万教师 一张答卷[*Learning during the School Closure Period*]. China Education News.

⁶¹¹ MOE, PRC (2020, February 4). 教育部应对新型冠状病毒感染肺炎疫情工作领导小组办公室关于在疫情防控期间做好普通高等学校在线教学组织与管理工作的指导意见[*Guiding Opinion on Guidance on the Organization and Management of Online Teaching in General Higher Education Institutions during Epidemic Prevention and Control*]. Ministry of Education of the People's Republic of China.

whole process data of online teaching,⁶¹² which enhances the control over teaching progress and the ability to personalise the analysis of learning outcomes.

The journey of MOOCs in China continues, and Chinese educators are continuing to explore the path of MOOC with Chinese characteristics.

6.3 Conclusion

MOOC was first initiated in the West, and for a time the Western News media gave it a great deal of attention. So far, researches focusing on the MOOC coverage in Australia, Canada, Great Britain, New Zealand and the United States of America have portrayed MOOCs in Western News media and few study MOOCs in the context of Asian media. This paper may be the first research on the Asia's MOOC coverage. In this regard, extending the analysis so far on MOOC coverage in western countries to dailies in other countries does make sense. A further point of view could also be the question of what meaning the media gives to MOOCs at a time when schools and universities have to teach online. And it seems like a good choice to start with China, the first country to face the COVID-19 epidemic.

The COVID-19 epidemic has been lasting for two years, and appears to be going on for quite some time. During the last months, in order to fight against the virus and stop human-to-human transmission, living under lockdown has become the norm. It has resulted in schools being shut all across the world, causing the greatest damage to the education system in history, affecting almost all students and teachers from preschools to secondary school, vocational education institutions, colleges and universities, adult education and skill training schools. At the height of the pandemic, nearly 1.6 billion students in more than 190 countries were hampered in learning due to school closure.⁶¹³

The emergence of the COVID-19 pandemic has forced the world to engage in the ubiquitous use of virtual learning while people are required to stay at home. Before this global health crisis, online and distance learning has been used to maintain continuity in education, for instance, the majority of MOOC learners are people who already obtained a degree. At that time, online learning was more of an additional, supplementary and

⁶¹² Chen, X. (2020, March 9). 多措并举, 保障疫情下高校线上教学高质量发展[Ensuring high quality development of online teaching in colleges and universities under the epidemic with multiple measures]. Hunan Daily, 04.

⁶¹³ Futures of Education UNESCO (2020). *Education in a post-COVID world: Nine ideas for public action - International Commission on the Futures of Education*. United Nations Educational, Scientific and Cultural Organization, p. 3.

autonomous option, but in the epidemic, it has become a last resort. To keep learning during school closures, educators and students across all levels of education have to adapt quickly to virtual courses and accept the reality that online education which was regarded as an alternative is now the norm and may remain so for a certain period of time in the coming future.

Since the early stage of the crisis, live online classes have been the preferred form of teaching and learning. The term “emergency remote teaching” was coined to describe the temporary nature of this transition. During this period, live broadcast courses replaced recorded courses as the main means of implementing online learning. Although some online learning platforms and companies were involved in online education, educators from schools across all levels remain the main group of teaching. Learning and mastering the use of digital tools which help to conduct online instruction was a must for educators and students before starting their courses.

In the progress of advancing digital education, all kinds of online and offline training aimed at improving instructors’ digital awareness and application have enabled the vast majority of the teaching group, including the middle-aged and elderly, to adapt to basic digital learning and e-learning preparation, and to have certain IT operational skills. And most of them have become digital immigrants who possess basic digital skills required for online teaching, online communication and online management.

At the same time, educational innovations that integrate various instructional approaches and delivery modes have made the widespread adoption of distance learning possible, laying the groundwork for virtual learning. A variety of online learning management systems, such as Moodle, Rain classroom, and synchronous online communication systems, including Zoom, Microsoft Teams, Wechat, VooV Meeting, Ding Talk, WeLink, TikTok, were widely used for live online courses.

In China, with the advocacy and promotion of the education sector, a wide range of well-produced national MOOCs have been launched on major platforms, either as the best teaching materials for students' self-learning or as good aids for online teaching. In addition to emergency online teaching and school-based online teaching platforms, the epidemic has given rise to several internet-based online education products, for instance, live online courses from YuanFudao, Zebra AI Class, Zybang and New Oriental. Unlike online teaching platforms, these education products not only provide online teaching formats but also online teaching content, and their teaching methods include online live classes, online one-to-one mini-classes, recorded online courses, and even AI class.

During the epidemic period, these online teaching products attracted a large number of users by their efficient and interactive teaching methods, AI-powered intelligent classroom systems and flexible classroom models that can be repeated at any time, with the representative product YuanFudao's active user growth rate jumped from 10% in January 2020 to 60% in October 2020. Internet-based online education products are gaining popularity among students and parents as a regular means of teaching and learning.

As the first country that suffered an outbreak and a total closure, China was the first to universally use online education to replace regular on-site instruction during the crisis. And as the first country to recover from the epidemic, China is probably also the first one to face the problem of how to firmly integrate and anchor the achievements of universal online education explored during the transition into teaching routine.

Appendix: Text Corpus

The List of MOOC Articles by the New York Times (2011 – 2020)

The NYT reported on MOOCs with articles dated from 2011 to 2020 are under the following headlines:

2011: 3 articles

1. Free Course in Artificial Intelligence Is Offered Online, and 58,000 Sign Up⁶¹⁴
2. The University of Wherever⁶¹⁵
3. Would You Like to Take a Class Online?⁶¹⁶

2012: 22 articles

4. Beyond the College Degree, Online Educational Badges⁶¹⁷
5. Instruction for Masses Knocks Down Campus Walls⁶¹⁸
6. Harvard And M.I.T. Join to Offer Web Courses⁶¹⁹
7. For Many Public Universities, Fight at Virginia Is All Too Familiar⁶²⁰
8. Universities Reshaping Education on the Web⁶²¹
9. Top Universities Test the Online Appeal of Free⁶²²
10. One Course, 150,000 Students⁶²³
11. Berkeley to Join the Free Online Learning Partnership EdX⁶²⁴
12. Online Course Will Rely on Multiple Sites⁶²⁵
13. Colorado State to Offer Credits for Online Class⁶²⁶

⁶¹⁴ Markoff, J. (2011, August 16). *Free Course in Artificial Intelligence Is Offered Online, and 58,000 Sign Up* 2011. New York Times, p.11, hereinafter NYT 1.

⁶¹⁵ Keller, B. (2011, October 3). *The University of Wherever*. New York Times, p.25, hereinafter NYT 2.

⁶¹⁶ Doyne, S., & Ojalyo, H. E. (2011, October 5). *Would You Like to Take a Class Online?* New York Times, hereinafter NYT 3.

⁶¹⁷ Lewin, T. (2012, March 3). *Beyond the College Degree, Online Educational Badges*. New York Times, p.13, hereinafter NYT 4.

⁶¹⁸ Lewin, T. (2012, March 5). *Instruction for Masses Knocks Down Campus Walls*. New York Times, p.11, hereinafter NYT 5.

⁶¹⁹ Lewin, T. (2012, May 3). *Harvard and M.I.T. Join to Offer Web Courses*. New York Times, p.18, hereinafter NYT 6.

⁶²⁰ Lewin, T. (2012, June 26). *For Many Public Universities, Fight at Virginia Is All Too Familiar*. New York Times, p.10, hereinafter NYT 7.

⁶²¹ Lewin, T. (2012, July 17). *Universities Reshaping Education on the Web*. New York Times, p.12, hereinafter NYT 8.

⁶²² Perez-Pena, R. (2012, July 18). *Top Universities Test the Online Appeal of Free*. New York Times, p.15, hereinafter NYT 9.

⁶²³ Lewin, T. (2012, July 22). *One Course, 150,000 Students*. New York Times, p.33, hereinafter NYT 10.

⁶²⁴ Lewin, T. (2012, July 24). *Berkeley to Join the Free Online Learning Partnership EdX*. New York Times, p.3, hereinafter NYT 11.

⁶²⁵ Lewin, T. (2012, August 27). *Online Course Will Rely on Multiple Sites*. New York Times, p.11, hereinafter NYT 12.

⁶²⁶ Lewin, T. (2012, September 7). *Colorado State to Offer Credits for Online Class*. New York Times, p.22, hereinafter NYT 13.

14. Online Mentors to Guide Women into the Sciences⁶²⁷
15. Education Site Expands Slate of Universities and Courses⁶²⁸
16. Show Me Your Badge⁶²⁹
17. The Big Three⁶³⁰
18. The Year of the MOOC⁶³¹
19. Yale's Provost, Noted Psychology Scholar, Is Named President of the University⁶³²
20. The Personal Touch in Teaching⁶³³
21. College Credit Eyed for Online Courses⁶³⁴
22. University Consortium to Offer Small Online Courses for Credit⁶³⁵
23. College of Future Could Be Come One, Come All⁶³⁶
24. A Class Where Opening Minds, Not Earning Credits, Is the Point⁶³⁷
25. The Old College Try? No Way⁶³⁸

2013: 60 articles

26. Students Rush to Web Classes, But Profits May Be Much Later⁶³⁹
27. California To Give Web Courses A Big Trial⁶⁴⁰
28. A Christian Pioneer of Home Schooling Looks to Its Future⁶⁴¹
29. Public Universities to Offer Free Online Classes for Credit⁶⁴²

⁶²⁷ Lewin, T. (2012, September 17). *Online Mentors to Guide Women into the Sciences*. New York Times, p.15, hereinafter NYT 14.

⁶²⁸ Lewin, T. (2012, September 25). *Education Site Expands Slate of Universities and Courses*. New York Times, p.20, hereinafter NYT 15.

⁶²⁹ Carey, K. (2012, November 4). *Show Me Your Badge*. New York Times, p.28, hereinafter NYT 16.

⁶³⁰ New York Times (2012, November 4). *The Big Three*. New York Times, p.27, hereinafter NYT 17.

⁶³¹ Pappano, L. (2012, November 20). *The Year of the MOOC*. New York Times, p.26, hereinafter NYT 18.

⁶³² Kaminer, A. (2012, November 9). *Yale's Provost, Noted Psychology Scholar, Is Named President of the University*. New York Times, p.24, hereinafter NYT 19.

⁶³³ Harris, A. K. (2012, November 13). *The Person Touch in Teaching*. New York Times, hereinafter NYT 20.

⁶³⁴ Lewin, T. (2012, November 14). *College Credit Eyed for Online Courses*. New York Times, p.19, hereinafter NYT 21.

⁶³⁵ Seligson, H. (2012, November 16). *University Consortium to Offer Small Online Courses for Credit*. New York Times, hereinafter NYT 22.

⁶³⁶ Lewin, T. (2012, November 20). *College of Future Could Be Come One, Come All*. New York Times, p.1, hereinafter NYT 23.

⁶³⁷ Lewin, T. (2012, November 20). *A Class Where Opening Minds, Not Earning Credits, Is the Point*. New York Times, p.16, hereinafter NYT 24.

⁶³⁸ Williams, A. (2012, December 2). *The Old College Try? No Way*. New York Times, p.1, hereinafter NYT 25.

⁶³⁹ Lewin, T. (2013, January 7). *Students Rush to Web Classes, But Profits May Be Much Later*. New York Times, p.1, hereinafter NYT 26.

⁶⁴⁰ Lewin, T., & Markoff, J. (2013, January 15). *California to Give Web Courses a Big Trial*. New York Times, p.1, hereinafter NYT 27.

⁶⁴¹ Oppenheimer, M. (2013, January 19). *A Christian Pioneer of Home Schooling Looks to Its Future*. New York Times, p.18, hereinafter NYT 28.

⁶⁴² Lewin, T. (2013, January 23). *Public Universities to Offer Free Online Classes for Credit*. New York Times, p.15, hereinafter NYT 29.

30. Revolution Hits the Universities⁶⁴³
31. Davos Forum Considers Learning's Next Wave⁶⁴⁴
32. Online Courses: Possibilities and Pitfalls⁶⁴⁵
33. Five Online Courses Are Eligible for College Credit⁶⁴⁶
34. European Take a More Cautious Approach Towards Online Course⁶⁴⁷
35. Universities Abroad Join Partnerships on the Web⁶⁴⁸
36. Online U: A Look at the Rankings⁶⁴⁹
37. Symposium on 'Feminine Mystique,' and More⁶⁵⁰
38. Universities UK Welcomes Indian Partnerships⁶⁵¹
39. Keeping an Eye on Online Test-Takers⁶⁵²
40. The Professors' Big Stage⁶⁵³
41. Measure Seeks Campus Credit for Online Classes⁶⁵⁴
42. Open and Closed⁶⁵⁵
43. A New Order, From Inexpensive and Online ...⁶⁵⁶
44. ... To Free and Online⁶⁵⁷
45. Harvard Asks Graduates to Donate Their Time to a Free Online Humanities Class⁶⁵⁸

⁶⁴³ Friedman, T. L. (2013, January 27). *Revolution Hits the Universities*. New York Times, p.1, hereinafter NYT 30.

⁶⁴⁴ Smale, A. (2013, January 28). *Davos Forum Considers Learning's Next Wave*. New York Times, p.2, hereinafter NYT 31.

⁶⁴⁵ Durden, W.G., Bottomly, H. K., Rubin, B., Stetz, M. D., & Hirsch, M. (2013, January 29). *Online Courses: Possibilities and Pitfalls*. New York Times, p.22, hereinafter NYT 32.

⁶⁴⁶ Lewin, T. (2013, February 7). *Five Online Courses Are Eligible for College Credit*. New York Times, p.17, hereinafter NYT 33.

⁶⁴⁷ Guttenplan, D.D. (2013, February 18). *European Take a More Cautious Approach Towards Online Course*. New York Times, hereinafter NYT 34.

⁶⁴⁸ Lewin, T. (2013, February 21). *Universities Abroad Join Partnership on the Web*. New York Times, p.18, hereinafter NYT 35.

⁶⁴⁹ Krolik, A. B., Wyatt, H. J., Mintz, S., Stevens, M. L., Lipsitz, L., & Quinton, A. R. (2013, February 19). *Online U: A look at the rankings*. New York Times, p.26, hereinafter NYT 36.

⁶⁵⁰ Lee, A. C. (2013, February 22). *Symposium on 'Feminine Mystique,' and More*. New York Times, p.30, hereinafter NYT 37.

⁶⁵¹ Yang, C., & Lau, J. (2013, February 25). *Universities UK Welcomes Indian Partnerships*. New York Times, hereinafter NYT 38.

⁶⁵² Eisenberg, A. (2013, March 3). *Keeping an Eye on Online Test-Takers*. New York Times. p. 4, hereinafter NYT 39.

⁶⁵³ Friedman, T. L. (2013, March 6). *The Professors' Big Stage*. New York Times, p.23, hereinafter NYT 40.

⁶⁵⁴ Lewin, T. (2013, March 13). *Measure Seeks Campus Credit for Online Classes*. New York Times, p.15, hereinafter NYT 41.

⁶⁵⁵ Morozov, E. (2013, March 17). *Open and Closed*. New York Times, p.11, hereinafter NYT 42.

⁶⁵⁶ Olson, E. (2013, March 19). *A New Order, From Inexpensive and Online*. New York Times, p.2, hereinafter NYT 43.

⁶⁵⁷ Wallis, D. (2013, March 19). *To Free and Online*. New York Times, p.2, hereinafter NYT 44.

⁶⁵⁸ Pérez-Peña, R. (2013, March 26). *Harvard Asks Graduates to Donate Their Time to a Free Online Humanities Class*. New York Times, p.12, hereinafter NYT 45.

46. The Practical University⁶⁵⁹
47. Software Seen Giving Grades on Essay Tests⁶⁶⁰
48. Live, in the Classroom⁶⁶¹
49. State Lines May Ease for Classes Held Online⁶⁶²
50. Trimming Back the Ivy⁶⁶³
51. Two Cheers for Web U!⁶⁶⁴
52. Online College, Beyond the Hoopla⁶⁶⁵
53. Adapting to Blended Courses, and Finding Early Benefits⁶⁶⁶
54. Colleges Adapt Online Courses to Ease Burden⁶⁶⁷
55. Professors at San Jose State Criticize Online Courses⁶⁶⁸
56. An Education Hybrid⁶⁶⁹
57. Georgia Tech Will Offer a Master's Degree Online⁶⁷⁰
58. Universities Team with Online Course Provider⁶⁷¹
59. Coming Together on Prison Reform⁶⁷²
60. Online Classes Fuel a Campus Debate⁶⁷³
61. Illiberal Arts⁶⁷⁴
62. Online Course Provider Tries to Enter China Market⁶⁷⁵

⁶⁵⁹ Brooks, D. (2013, April 5). *The Practical University*. New York Times, p.23, hereinafter NYT 46.

⁶⁶⁰ Markoff, J. (2013, April 5). *Software Seen Giving Grades on Essay Tests*. New York Times, p.1, hereinafter NYT 47.

⁶⁶¹ Hauptman, J. (2013, April 7). *Live, in the Classroom*. New York Times, p.22, hereinafter NYT 48.

⁶⁶² Lewin, T. (2013, April 12). *State Lines May Ease for Classes Held Online*. New York Times, p.13, hereinafter NYT 49.

⁶⁶³ Lewin, T. (2013, April 14). *Trimming Back the Ivy*. New York Times, p.11, hereinafter NYT 50.

⁶⁶⁴ Jacobs, A. J. (2013, April 21). *Two Cheers for Web U!* New York Times, p.1, hereinafter NYT 51.

⁶⁶⁵ Svare, B.B., Rose, L. H., & Garlick, J. (2013, April 29). *Online College, Beyond the Hoopla*. New York Times, p.20, hereinafter NYT 52.

⁶⁶⁶ Lewin, T. (2013, April 30). *Adapting to Blended Courses, and Finding Early Benefits*. New York Times, hereinafter NYT 53.

⁶⁶⁷ Lewin, T. (2013, May 2). *Colleges Adapt Online Courses to Ease Burden*. New York Times, p.1, hereinafter NYT 54.

⁶⁶⁸ Lewin, T. (2013, May 3). *Professors at San Jose State Criticize Online Courses*. New York Times, p.12, hereinafter NYT 55.

⁶⁶⁹ Lemons, D.E. (2013, May 6) *An Educational Hybrid*. New York Times, Opinion, hereinafter NYT 56.

⁶⁷⁰ Lewin, T. (2013, May 15). *Georgia Tech Will Offer a Master's Degree Online*. New York Times, p.15, hereinafter NYT 57.

⁶⁷¹ Lewin, T. (2013, May 30). *Universities Team with Online Course Provider*. New York Times, p.15, hereinafter NYT 58.

⁶⁷² Wald, D.H.J., Bronstein, Y., AX, R.K., Hammond, R.N., & Charo, R.A. (2013, June 17). *Coming Together on Prison Reform*. New York Times, p.16, hereinafter NYT 59

⁶⁷³ Lewin, T. (2013, June 20). *Online Classes Fuel a Campus Debate*. New York Times, p.16, hereinafter NYT 60.

⁶⁷⁴ Delbanco, A. (2013, June 23). *Illiberal Arts*. New York Times, p.22, hereinafter NYT 61.

⁶⁷⁵ Lau, J. (2013, July 22). U.S. *Online Course Provider Tries to Enter China Market*. New York Times, hereinafter NYT 62.

63. To Catch a Cheat⁶⁷⁶
64. Master's Degree Is New Frontier of Study Online⁶⁷⁷
65. Obama's Plan Aims to Lower Cost of College⁶⁷⁸
66. In This Online Psychology Class, the Key Words Are Real Time⁶⁷⁹
67. The Pop! of the Wild⁶⁸⁰
68. Harvard and M.I.T. Team with Google⁶⁸¹
69. No Child Left Untabled⁶⁸²
70. Online Classes Move Closer to Degree Programs⁶⁸³
71. The Boy Genius of Ulan Bator⁶⁸⁴
72. European Universities Catch an Online Wave⁶⁸⁵
73. A Surge in Growth for a New Kind of Online Course⁶⁸⁶
74. College's Identity Crisis⁶⁸⁷
75. When Schools Do Flips⁶⁸⁸
76. Predictions for Health, Science and Life⁶⁸⁹
77. Colleges Need Metrics to Measure Student Success⁶⁹⁰
78. Recruiters Without Borders: Companies Scout Globally⁶⁹¹

⁶⁷⁶ New York Times Academic Integrity (2013, August 4). *To Catch a Cheat*. New York Times, p.4. hereafter NYT 63.

⁶⁷⁷ Lewin, T. (2013, August 22). *Master's Degree Is New Frontier of Study Online*. New York Times, p.1, hereinafter NYT 64.

⁶⁷⁸ Lewin, T. (2013, August 22). *Obama's Plan Aims to Lower Cost of College*. New York Times, p.1, hereinafter NYT 65.

⁶⁷⁹ Hamilton, R. (2013, September 6). *In This Online Psychology Class, the Key Words Are Real Time*. New York Times, p.17A, hereinafter NYT 66.

⁶⁸⁰ Hirsh, A. (2013, September 9). *The Pop! of the Wild*. New York Times, p.21, hereinafter NYT 67.

⁶⁸¹ Lewin, T. (2013, September 11). *Harvard and M.I.T. Team with Google*. New York Times, p.18, hereinafter NYT 68.

⁶⁸² Rotella, C. (2013, September 15). *No Child Left Untabled*. New York Times, p.26, hereinafter NYT 69.

⁶⁸³ Lewin, T. (2013, September 18). *Online Classes Move Closer to Degree Programs*. New York Times, p.15, hereinafter NYT 70.

⁶⁸⁴ Pappano, L. (2013, September 19). *The Boy Genius of Ulan Bator*. New York Times, p.51, hereinafter NYT 71.

⁶⁸⁵ Schuetze, C.F. (2013, September 23). *European Universities Catch an Online Wave*. New York Times, hereinafter NYT 72.

⁶⁸⁶ Finder, A. (2013, September 29). *A Surge in Growth for a New Kind of Online Course*. New York Times, p.10, hereinafter NYT 73.

⁶⁸⁷ Bruni, F. (2013, October 13). *College's Identity Crisis*. New York Times, p.3, hereinafter NYT 74.

⁶⁸⁸ Rosenberg, T. (2013, October 13). *When Schools Do Flips*. New York Times, p.12, hereinafter NYT 75.

⁶⁸⁹ Sedlacek, T. (2013, October 15). *Predictions for Health, Science and Life*. New York Times, hereinafter NYT 76.

⁶⁹⁰ Gast, A. P. (2013, October 19). *Colleges Need Metrics to Measure Student Success*. New York Times, p.18, hereinafter NYT 77.

⁶⁹¹ Schuetze, C.F. (2013, October 28). *Recruiters Without Borders: Companies Scout Globally*. New York Times, hereinafter NYT 78.

79. U.S. Teams Up with Operator of Online Courses to Plan a Global Network⁶⁹²
80. Going All the Way⁶⁹³
81. Online Courses Attract Degree Holders, Survey Finds⁶⁹⁴
82. Professors in Deal to Design Online Lessons for A.P. Classes⁶⁹⁵
83. After Setbacks, Online Courses Are Rethought⁶⁹⁶
84. On the Innovation of Nations⁶⁹⁷
85. Online Courses: High Hopes, Trimmed⁶⁹⁸
- 2014: 25 articles**
86. It All Started with a 12-Year-Old Cousin⁶⁹⁹
87. Learning to Think Differently⁷⁰⁰
88. From Plains to CUNY, New Chief Is 'Coming Home'⁷⁰¹
89. Breakfast Before the MOOC⁷⁰²
90. GTT⁷⁰³
91. The Record of Israel's Universities⁷⁰⁴
92. What Color Is Your Online Adult Course?⁷⁰⁵
93. Ex-Yale President to Join Online Education Venture⁷⁰⁶
94. Educators Survey State of Higher Learning in Asia⁷⁰⁷

⁶⁹² Lewin, T. (2013, November 1). *U.S. Teams Up with Operator of Online Courses to Plan a Global Network*. New York Times, p.22, hereinafter NYT 79.

⁶⁹³ Christensen, C. M., & Horn, M. B. (2013, November 3). *Going All the Way*. New York Times, p.25, hereinafter NYT 80.

⁶⁹⁴ Lewin, T. (2013, November 21). *Online Courses Attract Degree Holders, Survey Finds*. New York Times, p.23, hereinafter NYT 81.

⁶⁹⁵ Lewin, T. (2013, December 5). *Professors in Deal to Design Online Lessons for A.P. Classes*. New York Times, p.27, hereinafter NYT 82.

⁶⁹⁶ Lewin, T. (2013, December 11). *After Setbacks, Online Courses Are Rethought*. New York Times, p.1, hereinafter NYT 83.

⁶⁹⁷ Schwab, K. (2013, December 16). *On the Innovation of Nations*. New York Times, hereinafter NYT 84.

⁶⁹⁸ Robbins, A., Schreiber, S., & Lesser, M. (2013, December 17). *Online Courses: High Hopes, Trimmed*. New York Times, p.28, hereinafter NYT 85.

⁶⁹⁹ Dreifus, C. (2014, January 28). *It All Started with a 12-Year-Old Cousin*. New York Times, p.5, hereinafter NYT 86.

⁷⁰⁰ Pappano, L. (2014, February 9). *Learning to Think Differently*. New York Times, p.8, hereinafter NYT 87.

⁷⁰¹ Kaminer, A. (2014, February 19). *From Plains to CUNY, New Chief Is 'Coming Home'*. New York Times, p.16, hereinafter NYT 88.

⁷⁰² Friedman, T. L. (2014, February 19). *Breakfast Before the MOOC*. New York Times, p.19, hereinafter NYT 89.

⁷⁰³ Hoinski, M. (2014, February 27). *GTT*. New York Times, p.19B, hereinafter NYT 90.

⁷⁰⁴ Willner, P., White, B., & Jahani, M. *The Record of Israel's Universities*. New York Times, hereinafter NYT 91.

⁷⁰⁵ Wasik, J. F. (2014, March 18). *What Color Is Your Online Adult Course?* New York Times, p.5, hereinafter NYT 92.

⁷⁰⁶ Lewin, T. (2014, March 25). *Ex-Yale President to Join Online Education Venture*. New York Times, p.18, hereinafter NYT 93.

⁷⁰⁷ Fischer, K. (2014, March 31). *Educators Survey State of Higher Learning in Asia*. New York Times, hereinafter NYT 94.

95. Ivy League Ups and (Yes) Downs⁷⁰⁸
96. Out in Front, and Optimistic, About Online Education⁷⁰⁹
97. Adapting for the Future at European Conference⁷¹⁰
98. B-School, Disrupted⁷¹¹
99. Via Tablet or Smartphone, Learning with MOOCs⁷¹²
100. Online Learning Goes to Harvard⁷¹³
101. A Smart Way to Skip College⁷¹⁴
102. BBC Offering Archives for World War I Courses⁷¹⁵
103. The Challenges of 'Higher-Education Emergencies'⁷¹⁶
104. Bringing the Culture of Tech to the Staid College Quad⁷¹⁷
105. Universities Rethinking Their Use of Massive Online Courses⁷¹⁸
106. Demystifying the MOOC⁷¹⁹
107. The Internet and the Mind⁷²⁰
108. Bringing Education to African Girls⁷²¹
109. College for Grown-Ups⁷²²
110. Life and Experience Make College More Meaningful⁷²³

2015: 17 Articles

⁷⁰⁸ Pappano, L. (2014, April 13). *Ivy League Ups and (Yes) Downs*. New York Times, p.4, hereinafter NYT 95.

⁷⁰⁹ Guttenplan, D. D. (2014, April 14). *Out in Front, and Optimistic, About Online Education*, hereinafter NYT 96.

⁷¹⁰ Schuetze, C. (2014, April 28). *Adapting for the Future at European Conference*. New York Times, hereinafter NYT 97.

⁷¹¹ Useem, J. (2014, June 1). *B-School, Disrupted*. New York Times, p.1, hereinafter NYT 98.

⁷¹² Eaton, K. (2014, June 5). *Via Tablet or Smartphone, Learning with MOOCs*. New York Times, p.7, hereinafter NYT 99.

⁷¹³ Burkhalter, N., & Ward, J. (2014, June 8). *Online Learning Goes to Harvard*. New York Times, p.8, hereinafter NYT 100.

⁷¹⁴ Porter, E. (2014, June 18). *A Smart Way to Skip College*. New York Times, p.1, hereinafter NYT 101.

⁷¹⁵ The International New York Times (2014, June 28). *BBC Offering Archives for World War I Courses*. New York Times, hereinafter NYT 102.

⁷¹⁶ Kolowich, S. (2014, August 18). *The Challenges of 'Higher-Education Emergencies'*. New York Times, hereinafter NYT 103.

⁷¹⁷ Wood, H. (2014, August 28). *Bringing the Culture of Tech to the Staid College Quad*. New York Times, p.6, hereinafter NYT 104.

⁷¹⁸ Hamilton, R. (2014, October 17). *Universities Rethinking Their Use of Massive Online Courses*. New York Times, p.25A, hereinafter NYT 105.

⁷¹⁹ Selingo, J. J. (2014, November 2). *Demystifying the MOOC*. New York Times, p.23, hereinafter NYT 106.

⁷²⁰ Silverman, J. (2014, November 16). *The Internet and the Mind*. New York Times, p.30, hereinafter NYT 107.

⁷²¹ Schuetze, C. F. (2014, November 24). *Bringing Education to African Girls*. New York Times, hereinafter NYT 108.

⁷²² Stevens, M. L. (2014, December 12). *College for Grown-Ups*. New York Times, p.35, hereinafter NYT 109.

⁷²³ Pollock, S., & Cleave, R. (2014, December 22). *Life and Experience Make College More Meaningful*. New York Times, p.26, hereinafter NYT 110.

111. Harvard and M.I.T. Are Sued Over Lack of Closed Captions⁷²⁴
112. Changing College for Good⁷²⁵
113. A New Look for College? ⁷²⁶
114. If You Can Know It All, How Come You Don't ⁷²⁷
115. More at Ease Online, Retirees Tap Free Courses⁷²⁸
116. Over 50 and Back in College, Preparing for a New Career ⁷²⁹
117. Help Us Learn in Prison⁷³⁰
118. Yale Medical School's Request to Expand Campus Program Online is Denied⁷³¹
119. Promising Full College Credit, Arizona State Offers Online Freshman Program⁷³²
120. 2 College Chiefs, on Higher Education ⁷³³
121. How They Spent Their Summer Vacation: Online, Taking More Courses⁷³⁴
122. Teaching Tech Skills to Millions, and Fast⁷³⁵
123. The Benefits of Allowing Bitcoin to Flourish ⁷³⁶
124. Left to Our Own Devices ⁷³⁷
125. U.S. Will Approve Some Programs Eligible for Student Funding on Its Own⁷³⁸
126. Online University Helps Philanthropic Groups and Their Leaders⁷³⁹

⁷²⁴ Lewin, T. (2015, February 13). *Harvard and M.I.T. Are Sued Over Lack of Closed Captions*. New York Times, p.18, hereinafter NYT 111.

⁷²⁵ Carey, K. (2015, March 8). *Changing College for Good*. New York Times, p.2, hereinafter NYT 112.

⁷²⁶ Helle, D. E., Chodoss, L., Ross, M.E., Kyle, S., Pelletier, J., Boyte, H. C., Han, C., & O'Connell, K. (2015, March 15). *A New Look for College?* New York Times, p.10, hereinafter NYT 113.

⁷²⁷ Zane, J. P. (2015, March 20). *If You Can Know It All, How Come You Don't*. New York Times, p.1, hereinafter NYT 114.

⁷²⁸ Konrad, W. (2015, March 20). *More at Ease Online, Retirees Tap Free Courses*. New York Times, p.2, hereinafter NYT 115.

⁷²⁹ Hannon, K. (2015, April 4). *Over 50 and Back in College, Preparing for a New Career*. New York Times, p.4, hereinafter NYT 116.

⁷³⁰ Lennon, J. J. (2015, April 5). *Help Us Learn in Prison*. New York Times, p.9, hereinafter NYT 117.

⁷³¹ Lewin, T. (2015, April 15). *Yale Medical School's Request to Expand Campus Program Online is Denied*. New York Times, p.4, hereinafter NYT 118.

⁷³² Lewin, T. (2015, April 23). *Promising Full College Credit, Arizona State Offers Online Freshman Program*. New York Times, p.14, hereinafter NYT 119.

⁷³³ Faust, D.G., & Byerly, A. (2015, July 29). *2 College Chiefs, on Higher Education*. New York Times, p.20, hereinafter NYT 120.

⁷³⁴ Harris, E. A. (2015, August 26). *How They Spent Their Summer Vacation: Online, Taking More Courses*. New York Times, p.17, hereinafter NYT 121.

⁷³⁵ Manjoo, F. (2015, September 17). *Teaching Tech Skills to Millions, and Fast*. New York Times, p.1, hereinafter NYT 122.

⁷³⁶ Beckerman, M. (2015, September 22). *The Benefits of Allowing Bitcoin to Flourish*. New York Times, hereinafter NYT 123.

⁷³⁷ Franzen, J. (2015, October 4). *Left to Our Own Devices*. New York Times, p.1, hereinafter NYT 124.

⁷³⁸ Cohen, P. (2015, October 14). *U.S. Will Approve Some Programs Eligible for Student Funding on Its Own*. New York Times, p.3, hereinafter NYT 125.

⁷³⁹ Sullivan, P. (2015, October 17). *Online University Helps Philanthropic Groups and Their Leaders*. New York Times, p.4, hereinafter NYT 126.

127. Education: A Class Divide in Online Courses⁷⁴⁰

2016: 4 Articles

128. An Online Course Teaches Learning⁷⁴¹

129. Forward Tinkering⁷⁴²

130. Born in the VCR Era, Great Courses Seeks to Evolve⁷⁴³

131. Georgia Tech's \$7,000 Online Master's Degree Could Start a Revolution⁷⁴⁴

2017: 5 Articles

132. Get with the Programming⁷⁴⁵

133. Be Nice – You Won't Finish Last⁷⁴⁶

134. From the Ivy League to Silicon Valley⁷⁴⁷

135. You, Too, Can Rewire Your Brain⁷⁴⁸

136. Campus Choices⁷⁴⁹

2018: 0 Articles

2019: 3 Articles

137. Is Coding a Foreign Language?⁷⁵⁰

138. My Co-Worker Is Besties with the Boss.⁷⁵¹

139. The Machines Are Learning, and So Are the Students⁷⁵²

2020: 3 Articles

140. Online Learning Should Return to a Supporting Role⁷⁵³

⁷⁴⁰ Bhanoo, S. N. (2015, December 8). *Education: A Class Divide in Online Courses*. New York Times, p.2, hereinafter NYT 127.

⁷⁴¹ Markoff, J. (2016, January 4). *An Online Course Teaches Learning*. New York Times, p.4, hereinafter NYT 128.

⁷⁴² Schwartz, J. (2016, February 7). *Forward Tinkering*. New York Times, p.4, hereinafter NYT 129.

⁷⁴³ Max, S. (2016, May 29). *Born in the VCR Era, Great Courses Seeks to Evolve*. New York Times, p.4, hereinafter NYT 130.

⁷⁴⁴ Carey, K. (2016, October 5). *Georgia Tech's \$7,000 Online Master's Degree Could Start a Revolution*. New York Times, p.15, hereinafter NYT 131.

⁷⁴⁵ Lohr, S. (2017, April 9). *Get with the Programming*. New York Times, p.20, hereinafter NYT 132.

⁷⁴⁶ Nir, S. M. (2017, April 9). *Be Nice – You Won't Finish Last*. New York Times, p.2, hereinafter NYT 133.

⁷⁴⁷ Bryant, A. (2017, April 16). *From the Ivy League to Silicon Valley*. New York Times, p.2, hereinafter NYT 134.

⁷⁴⁸ Shewartz, J. (2017, August 6). *You, Too, Can Rewire Your Brain*. New York Times, p.6, hereinafter NYT 135.

⁷⁴⁹ Calhoun, C. (2017, August 27). *Campus Choices*. New York Times, p.22, hereinafter NYT 136.

⁷⁵⁰ Egginton, W. (2019, March 18). *Is Coding a Foreign Language?* New York Times, p.23, hereinafter NYT 137.

⁷⁵¹ Lederer, K. (2019, May 12). *My Co-Worker Is Besties with the Boss*. New York Times, p.3, hereinafter NYT 138.

⁷⁵² Smith C. S. (2019, December 18). *The Machines Are Learning, and So Are the Students*. New York Times, hereinafter NYT 139.

⁷⁵³ Deming, D. (2020, April 12). *Online Learning Should Return to a Supporting Role*. New York Times, p.5, hereinafter NYT 140.

141. The Hunt for Moby Dick Moves Online⁷⁵⁴
142. Remember the MOOCs? After Near-Death, They're Booming Search⁷⁵⁵

⁷⁵⁴ Fortin, J. (2020, May 1). *The Hunt for Moby Dick Moves Online*. New York Times, p.5, hereinafter NYT 141.

⁷⁵⁵ Lohr, S. (2020, May 26). *Remember the MOOCs? After Near-Death, They're Booming Search*. New York Times, p.1, hereinafter NYT 142.

The List of MOOC Articles by the Guangming Daily (2011 – 2020)

2011: 0 Articles

2012: 0 Articles

2013: 16 Articles

1. 清华正式加盟 edX [Tsinghua officially joined edX].⁷⁵⁶
2. 在线大学：洪水猛兽还是“济世仙丹” [Online University: “disaster” or “panacea”]?⁷⁵⁷
3. 在线教育如何惠及更多人 [How can online education benefit more people].⁷⁵⁸
4. “慕课”对高校体制的五大挑战 [MOOC poses five challenges to the university system].⁷⁵⁹
5. 未来大学没有围墙 [Future university has no walls].⁷⁶⁰
6. MOOC 的希望与困境 [MOOCs: Hope and dilemma].⁷⁶¹
7. 慕课教学模式应用于“双师教学”项目 [MOOC model is applied to the “dual teachers” project].⁷⁶²
8. 网络公开课终身学习的广阔海洋 [Online open courses, an ocean of lifelong learning].⁷⁶³
9. 清华大学 MOOC“学堂在线”正式上线 [XuetangX, the Tsinghua-based MOOC platform officially goes live].⁷⁶⁴

⁷⁵⁶ Deng, H. (2013, May 22). 清华正式加盟 edX [Tsinghua officially joined edX]. *Guangming Daily*, 01, hereinafter GD 1.

⁷⁵⁷ Deng, H. (2013, June 5). 在线大学：洪水猛兽还是“济世仙丹” [Online University: “disaster” or “panacea”]? *Guangming Daily*, 05, hereinafter GD 2.

⁷⁵⁸ Deng, H., & Liu, M. (2013, August 16). 在线教育如何惠及更多人 [How can online education benefit more people]. *Guangming Daily*, 06, hereinafter GD 3.

⁷⁵⁹ Du, Y. (2013, August 21). “慕课”对高校体制的五大挑战 [MOOC poses five challenges to the university system]. *Guangming Daily*, 14, hereinafter GD 4.

⁷⁶⁰ Chen, Z. (2013, August 31). 未来大学没有围墙 [Future university has no walls]. *Guangming Daily*, 05, hereinafter GD 5.

⁷⁶¹ Bartholet, J., & Guo, K. (2013, August 31). MOOC 的希望与困境 [MOOCs: Hope and dilemma]. *Guangming Daily*, 05, hereinafter GD 6.

⁷⁶² Liu, Z. (2013, September 4). 慕课教学模式应用于“双师教学”项目 [MOOC model is applied to the “dual teachers” project]. *Guangming Daily*, 14, hereinafter GD 7.

⁷⁶³ Shen, X. (2013, October 5). 网络公开课终身学习的广阔海洋 [Online open courses, an ocean of lifelong learning]. *Guangming Daily*, 03, hereinafter GD 8.

⁷⁶⁴ Deng, H. (2013, October 11). 清华大学 MOOC“学堂在线”正式上线 [XuetangX, the Tsinghua-based MOOC platform officially goes live]. *Guangming Daily*, 06, hereinafter GD 9.

10. 面对 MOOC，中国大学一要大胆，二要创新 [In the face of MOOC, Chinese universities must be bold and innovative].⁷⁶⁵
11. 大学的使命 [The mission of universities].⁷⁶⁶
12. 教育梦，在路上 [Educational dreams, on the road].⁷⁶⁷
13. MOOC: 能否颠覆教育流程 [Can MOOC subvert the education process]?⁷⁶⁸
14. 慕课”引发在线教育”战国时代” [MOOC triggers the “Warring States Period” of online education].⁷⁶⁹
15. 教育不能迷失在技术浪潮中 [Education should not get lost in the wave of technology].⁷⁷⁰
16. 首届中国教育信息化行业新年论坛召开 [The First New Year’s Forum of China’s Education informatisation Industry Held].⁷⁷¹

2014: 41 Articles

17. 无形”科大”来了 [Invisible “NUDT” is coming].⁷⁷²
18. 基础教育，能”慕课”吗 [MOOC for basic education]?⁷⁷³
19. 复旦首门慕课平台课程上线 [Fudan’s first MOOC goes live].⁷⁷⁴
20. 践行群众路线 推进高校党建创新 [Practicing the mass line and promoting the innovation in Party building in higher education institutions].⁷⁷⁵

⁷⁶⁵ Deng, H. (2013, October 11). 面对 MOOC，中国大学一要大胆，二要创新 [In the face of MOOC, Chinese universities must be bold and innovative]. Guangming Daily, 06, hereinafter GD 10.

⁷⁶⁶ Li, H. (2013, October 16). 大学的使命 [The mission of universities]. Guangming Daily, 16, hereinafter GD 11.

⁷⁶⁷ Zhong, B., & Jin, X. (2013, October 30). 教育梦，在路上 [Educational dreams, on the road]. Guangming Daily, 14, hereinafter GD 12.

⁷⁶⁸ Shang, J. (2013, November 18). MOOC: 能否颠覆教育流程 [Can MOOC subvert the education process]? Guangming Daily, 16, hereinafter GD 13.

⁷⁶⁹ Wang, Q. (2013, November 27) 慕课”引发在线教育“战国时代” [MOOC triggers the “Warring States Period” of online education]. Guangming Daily, 16, hereinafter GD 14.

⁷⁷⁰ Wang, Z. (2013, December 25). 教育不能迷失在技术浪潮中 [Education should not get lost in the wave of technology]. Guangming Daily, 16, hereinafter GD 15.

⁷⁷¹ Song, S. (2013, December 30). 首届中国教育信息化行业新年论坛召开 [The First New Year’s Forum of China’s Education informatization Industry Held]. Guangming Daily, 16, hereinafter GD 16.

⁷⁷² Chen, J., Cai, W., & Zhang, Z. (2014, January 8). 无形“科大”来了 [Invisible “NUDT” is coming]. Guangming Daily, 11, hereinafter GD 17.

⁷⁷³ Jin, X. (2014, January 14). 基础教育，能“慕课”吗 [MOOC for basic education]? Guangming Daily, 05, hereinafter GD 18.

⁷⁷⁴ Cao, J., & Yan, W. (2014, January 28). 复旦首门慕课平台课程上线 [Fudan’s first MOOC goes live]. Guangming Daily, 06, hereinafter GD 19.

⁷⁷⁵ Guangming Daily. (2014, February 22). 践行群众路线 推进高校党建创新 [Practicing the mass line and promoting the innovation in Party building in higher education institutions]. Guangming Daily, 06, hereinafter GD 20.

21. 架起千群”连心桥” [Set up the bridge between cadres and the masses].⁷⁷⁶
22. 主题访谈: 人才决定未来——教育如何为国家培养”追梦人” [Interview: Talents determine the future - How education can cultivate “ dream chasers” for the country].⁷⁷⁷
23. 当思修课遇上”慕课” [When “Ideological and Moral Cultivation and Basics of Law” meets MOOC].⁷⁷⁸
24. “中国大学先修课程”可行吗 [Will CAP work]?⁷⁷⁹
25. 多校将实现”好大学在线”学分互认 [Several universities will recognize the CNMOOC credits].⁷⁸⁰
26. 信息技术环境下如何再造高等教育组织机构 [How to reshape higher education institutions in the context of information technology].⁷⁸¹
27. 对慕课认识的六个误区 [6 Misunderstandings of MOOC].⁷⁸²
28. 以立德树人为导向培育”苏式”教育品牌 [Promote Jiangsu-Style education by taking fostering virtue as the fundamental task].⁷⁸³
29. 适时而变 [Change at the right time].⁷⁸⁴
30. 学校教育不会被网络教育取代 [School education will not be replaced by online education].⁷⁸⁵
31. 转型期更需重视高校育人模式改革 [More attentions should be paid to the reform of education model in colleges and universities in the transition period].⁷⁸⁶

⁷⁷⁶ Zhang, G., Song, X., Wang, X., Wei, Y., Cui, Z., Zhang, J., Yan, W., & Dong, C. (2014, March 1). 架起千群”连心桥” [Set up the bridge between cadres and the masses]. *Guangming Daily*, 01, hereinafter GD 21.

⁷⁷⁷ Xia, J., Cao, J., Yan, W., Wu, L., Zeng, Y., & Ren, S. (2014, March 9). 主题访谈: 人才决定未来——教育如何为国家培养”追梦人” [Interview: Talents determine the future - How education can cultivate “ dream chasers” for the country]. Special issue of the two meetings, *Guangming Daily*, 10, hereinafter GD 22.

⁷⁷⁸ Cao, J., Yan, W., & Zhang Y. (2014, March 21). 当思修课遇上”慕课” [When “Ideological and Moral Cultivation and Basics of Law” meets MOOC]. *Guangming Daily*, 06, hereinafter GD 23.

⁷⁷⁹ Qin, C. (2014, April 1). “中国大学先修课程”可行吗 [Will CAP work]? *Guangming Daily*, 14, hereinafter GD 24.

⁷⁸⁰ Cao, J., & Yan, W. (2014, April 9). 多校将实现”好大学在线”学分互认 [Several universities will recognize the CNMOOC credits] *Guangming Daily*, 06, hereinafter GD 25.

⁷⁸¹ Shang, J. (2014, April 29). 信息技术环境下如何再造高等教育组织机构 [How to reshape higher education institutions in the context of information technology]. *Guangming Daily*, 13, hereinafter GD 26.

⁷⁸² Yu, X. (2014, April 29). 对慕课认识的六个误区 [6 Misunderstandings of MOOC]. *Guangming Daily*, 13, hereinafter GD 27.

⁷⁸³ Gu, Y. (2014, April 29). 以立德树人为导向培育”苏式”教育品牌 [Promote Jiangsu-Style education by taking fostering virtue as the fundamental task]. *Guangming Daily*, 02, hereinafter GD 28.

⁷⁸⁴ Zhu, B. (2014, May 3). 适时而变 [Change at the right time]. *Guangming Daily*, 03, hereinafter GD 29.

⁷⁸⁵ Jin, H. (2014, May 21). 学校教育不会被网络教育取代 [School education will not be replaced by online education]. *Guangming Daily*, 06, hereinafter GD 30.

⁷⁸⁶ Ma, L. (2014, May 27). 转型期更需重视高校育人模式改革 [More attentions should be paid to the reform of education model in colleges and universities in the transition period]. *Guangming Daily*, 13, hereinafter GD 31.

32. 我们和人大附中一起上课 [We have classes together with the High School Affiliated to Renmin University].⁷⁸⁷
33. 卫星教室打造“慕课”教学中国版 [Satellite classrooms create the Chinese MOOC teaching model].⁷⁸⁸
34. 挖潜能 搭平台 给空间 [Tap the potential, set up platforms, and offer space].⁷⁸⁹
35. “2014 中国大学 MOOC 发展论坛”举办 [The 2014 China University MOOC Development Forum Held].⁷⁹⁰
36. 答辩走进 Web 2.0 时代 [Thesis defence entered the Web 2.0 era].⁷⁹¹
37. 慕课或将颠覆原有的教学模式 [MOOC may subvert the traditional teaching model].⁷⁹²
38. “弹性学制”，不该只是噱头 [“Flexible academic system” should not be just a gimmick].⁷⁹³
39. 中国大学加盟 FutureLearn 共同开发慕课 [Chinese universities join FutureLearn to jointly develop MOOCs].⁷⁹⁴
40. 让大学回归“教与学” [Let universities back to “teaching and learning”].⁷⁹⁵
41. 清华首批学生获在线课程学分——慕课这次真的来了 [The first Tsinghua students get their credits online – MOOC is really coming this time]!⁷⁹⁶

⁷⁸⁷ Song, X. (2014, June 17). 我们和人大附中一起上课 [We have classes together with the High School Affiliated to Renmin University]. *Guangming Daily*, 15, hereinafter GD 32.

⁷⁸⁸ Li, P. (2014, June 21). 卫星教室打造“慕课”教学中国版 [Satellite classrooms create the Chinese MOOC teaching model]. *Guangming Daily*, 10, hereinafter GD 33.

⁷⁸⁹ Xia, J., & Zhang, J. (2014, June 23). 挖潜能 搭平台 给空间 [Tap the potential, set up platforms, and offer space]. *Guangming Daily*, 06, hereinafter GD 34.

⁷⁹⁰ Guo, C. (2014, June 24). “2014 中国大学 MOOC 发展论坛”举办 [The 2014 China University MOOC Development Forum Held]. *Guangming Daily*, 06, hereinafter GD 35.

⁷⁹¹ Liu, W., & Deng, H. (2014, June 28). 论文答辩走进 Web 2.0 时代 [Thesis defence entered the Web 2.0 era]. *Guangming Daily*, 05, hereinafter GD 36.

⁷⁹² Jin, H. (2014, June 30). 慕课或将颠覆原有的教学模式 [MOOC may subvert the traditional teaching model]. *Guangming Daily*, 02, hereinafter GD 37.

⁷⁹³ Deng, H. (2014, May 30). “弹性学制”，不该只是噱头 [“Flexible academic system” should not be just a gimmick]. *Guangming Daily*, 05, hereinafter GD 38.

⁷⁹⁴ Qi, Q. (2014, July 8). 中国大学加盟 FutureLearn 共同开发慕课 [Chinese universities join FutureLearn to jointly develop MOOCs]. *Guangming Daily*, 13, hereinafter GD 39.

⁷⁹⁵ Qi, X., & Jin, X. (2014, July 9). 让大学回归“教与学” [Let universities back to “teaching and learning”]. *Guangming Daily*, 06, hereinafter GD 40.

⁷⁹⁶ Liu, W., & Deng, H. (2014, July 17). 清华首批学生获在线课程学分——慕课这次真的来了 [The first Tsinghua students get their credits online – MOOC is really coming this time]! *Guangming Daily*, 05, hereinafter GD 41.

42. 正确认识 MOOC 的三个关键问题 [Three key issues to accurately understands MOOC].⁷⁹⁷
43. 双师教学项目创新远程教学模式 [Innovative distance teaching mode in the dual-teacher project].⁷⁹⁸
44. 移动互联网时代的媒体：得用户者得天下 [Media in the era of the Internet: those who win uses win the world].⁷⁹⁹
45. 知识、智慧与道 [Knowledge, Wisdom and Tao].⁸⁰⁰
46. 青青校园 传统文化”活起来” [Make traditional culture live on campus].⁸⁰¹
47. 慕课时代，医学怎么教 [How to teach medicine in the MOOC era]?⁸⁰²
48. 北大新学期增加 28 门慕课课程 [Peking University adds 28 MOOCs in the new semester].⁸⁰³
49. 大学还会继续存在吗 [Will university continue to exist]?⁸⁰⁴
50. MOOC 到底有多开放 [How open Is MOOC]?⁸⁰⁵
51. “慕课”与网络孔子学院 [MOOC and online Confucius Institute].⁸⁰⁶
52. 苏州建设交通高等职业技术学校：构筑产教融合新优势 [Suzhou Institute of Construction & Communications: set up new advantages by strengthen cooperation with enterprises].⁸⁰⁷

⁷⁹⁷ Cao, P. (2014, August 26). 正确认识 MOOC 的三个关键问题 [Three key issues to accurately understands MOOC]. Guangming Daily, 13, hereinafter GD 42.

⁷⁹⁸ Gao, F. (2014, September 2). 双师教学项目创新远程教学模式 [Innovative distance teaching mode in the dual-teacher project]. Guangming Daily, 14, hereinafter GD 43.

⁷⁹⁹ Guo, J. (2014, September 6). 移动互联网时代的媒体：得用户者得天下 [Media in the era of the Internet: those who win uses win the world]. Guangming Daily, 07, hereinafter GD 44.

⁸⁰⁰ Yang, Y. (2014, September 16). 知识、智慧与道 [Knowledge, Wisdom and Tao]. Guangming Daily, 06, hereinafter GD 45.

⁸⁰¹ Wang, Q. (2014, September 24). 青青校园 传统文化“活起来” [Make traditional culture live on campus]. Guangming Daily, 01, hereinafter GD 46.

⁸⁰² Li, Y. (2014, October 7). 慕课时代，医学怎么教 [How to teach medicine in the MOOC era]? Guangming Daily, 07, hereinafter GD 47.

⁸⁰³ Jin, H. (2014, October 8). 北大新学期增加 28 门慕课课程 [Peking University adds 28 MOOCs in the new semester]. Guangming Daily, 06, hereinafter GD 48.

⁸⁰⁴ Hu, D. (2014, October 12). 大学还会继续存在吗 [Will university continue to exist]? Guangming Daily, 06, hereinafter GD 49.

⁸⁰⁵ Yang, J. (2014, October 12). MOOC 到底有多开放 [How open Is MOOC]? Guangming Daily, 06, hereinafter GD 50.

⁸⁰⁶ Liang, L., & Hu, R. (2014, November 6). “慕课”与网络孔子学院 [MOOC and online Confucius Institute]. Guangming Daily, 15, hereinafter GD 51.

⁸⁰⁷ Su, Y. (2014, November 14). 苏州建设交通高等职业技术学校：构筑产教融合新优势 [Suzhou Institute of Construction & Communications: set up new advantages by strengthen cooperation with enterprises]. Guangming Daily, 06, hereinafter GD 52.

53. “慕课”无法培养学生人格 [MOOC cannot foster students’ personality].⁸⁰⁸
54. 变革时代的大学之道 [The way of university in the age of change].⁸⁰⁹
55. 随着 MOOC、翻转课堂等在线教育产品的推出，互联网正渐渐改变着教育方式——在线教育会“颠覆”传统教育吗 [Will Online Education Overturn Traditional Education, when internet gradually changing the way of education with the emergence of online education products like MOOC and flip classroom]?⁸¹⁰
56. 在线教育是传统教育的补充而非颠覆 [Online education is a supplement to traditional education rather than subversion].⁸¹¹
57. 打造帮扶乡村教师的最美平台——“寻找最美乡村教师”公益活动四年回顾和发展”论坛发言摘登 [Forum speech excerpt of “Looking for the best rural teachers”].⁸¹²

2015: 47 Articles

58. 北大举办教育信息化创新论坛 [Peking University holds education informatisation innovation forum].⁸¹³
59. 高等教育新常态与教育改革创新 [The new normal of higher education and educational reform and innovation].⁸¹⁴
60. 清华传递有温度的传统文化 [Tsinghua tenderly conveys traditional culture].⁸¹⁵

⁸⁰⁸ Jin, H. (2014, November 18). “慕课”无法培养学生人格 [MOOC cannot foster students’ personality]. Guangming Daily, 05, hereinafter GD 53.

⁸⁰⁹ Hu, D. (2014, November 30). 变革时代的大学之道 [The way of university in the age of change]. Guangming Daily, 06, hereinafter GD 54.

⁸¹⁰ Jin, H. (2014, December 11). 随着 MOOC、翻转课堂等在线教育产品的推出，互联网正渐渐改变着教育方式——在线教育会“颠覆”传统教育吗 [Will Online Education Overturn Traditional Education, when internet gradually changing the way of education with the emergence of online education products like MOOC and flip classroom]? Guangming Daily, 06, hereinafter GD 55.

⁸¹¹ Hu, L. (2014, December 12). 在线教育是传统教育的补充而非颠覆 [Online education is a supplement to traditional education rather than subversion]. Guangming Daily, 02, hereinafter GD 56.

⁸¹² He, D. (2014, December 17). 打造帮扶乡村教师的最美平台——“寻找最美乡村教师”公益活动四年回顾和发展”论坛发言摘登 [Forum speech excerpt of “Looking for the best rural teachers”]. Guangming Daily, 07, hereinafter GD 57.

⁸¹³ Xiao, H. (2015, January 6). 北大举办教育信息化创新论坛 [Peking University holds education informatization innovation forum]. Guangming Daily, 14, hereinafter GD 58.

⁸¹⁴ Zhao, D. (2015, January 6). 高等教育新常态与教育改革创新 [The new normal of higher education and educational reform and innovation]. Guangming Daily, 16, hereinafter GD 59.

⁸¹⁵ Deng, H. (2015, January 7). 清华传递有温度的传统文化 [Tsinghua tenderly conveys traditional culture]. Guangming Daily, 04, hereinafter GD 60.

61. 信仰有根基 课堂有意思 ——高校思想政治理论课建设站上新起点 [New starting point of the construction of ideological and political theory courses in colleges and universities].⁸¹⁶
62. 远程教育公共服务体系高峰论坛举行 [The distance education public service system summit forum held].⁸¹⁷
63. 好未来加速在线教育业务拓展 [Tal education accelerates the expansion of its online education business].⁸¹⁸
64. 支教生涯 [Working as volunteer teacher].⁸¹⁹
65. 教育部开列 40 项工作要点勾勒 2015 年教育发展蓝图 [MOE lists 40 major tasks for 2015 education development].⁸²⁰
66. 思政课改革须适应移动互联新常态 [The reform of ideological and political education must adapt to the new normal of mobile internet].⁸²¹
67. 2014 年中国远程教育十大新闻揭晓 [The top ten news of China's distance education in 2014].⁸²²
68. 新媒体一日 [Day of new media].⁸²³
69. 高校要应对高招改革新挑战 [Colleges and universities should cope with new challenges in enrolment reform].⁸²⁴
70. 培养创新人才还需超越因材施教 [Talents Training needs to go beyond teaching in accordance with one's aptitude].⁸²⁵

⁸¹⁶ Wang, S., Yang, M., & Zhang, S. (2015, January 19). 信仰有根基 课堂有意思 ——高校思想政治理论课建设站上新起点 [New starting point of the construction of ideological and political theory courses in colleges and universities]. *Guangming Daily*, 01, hereinafter GD 61.

⁸¹⁷ Guo, C. (2015, January 20). 远程教育公共服务体系高峰论坛举行 [The distance education public service system summit forum held]. *Guangming Daily*, 13, hereinafter GD 62.

⁸¹⁸ Li, D. (2015, January 20). 好未来加速在线教育业务拓展 [Tal education accelerates the expansion of its online education business]. *Guangming Daily*, 14, hereinafter GD 63.

⁸¹⁹ Ma, J. (2015, January 20). 支教生涯 [Working as volunteer teacher]. *Guangming Daily*, 14, hereinafter GD 64.

⁸²⁰ Deng, H. (2015, January 24). 教育部开列 40 项工作要点勾勒 2015 年教育发展蓝图 [MOE lists 40 major tasks for 2015 education development]. *Guangming Daily*, 04, hereinafter GD 65.

⁸²¹ Zhang, S. (2015, January 28). 思政课改革须适应移动互联新常态 [The reform of ideological and political education must adapt to the new normal of mobile internet]. *Guangming Daily*, 02, hereinafter GD 66.

⁸²² Jin, H. (2015, February 10). 2014 年中国远程教育十大新闻揭晓 [The top ten news of China's distance education in 2014]. *Guangming Daily*, 14, hereinafter GD 67.

⁸²³ Guo, J., & Shi, J. (2015, March 7). 新媒体一日 [Day of new media]. *Guangming Daily*, 10, hereinafter GD 68.

⁸²⁴ Zhong, B. (2015, March 17). 高校要应对高招改革新挑战 [Colleges and universities should cope with new challenges in enrolment reform]. *Guangming Daily*, 13, hereinafter GD 69.

⁸²⁵ Lu, X. (2015, March 31). 培养创新人才还需超越因材施教 [Talents Training needs to go beyond teaching in accordance with one's aptitude]. *Guangming Daily*, 13, hereinafter GD 70.

71. 科研道路要怎样走? ——首批十八位博士谈治学与科研 [How to conduct scientific research – Experience sharing by the first batch of 18 doctors.]?⁸²⁶
72. 中国图书评论学会“中国好书” [Books recommended by China Book Review Society].⁸²⁷
73. 第十届文津图书奖揭晓 [The 10th Wenjin Book Awards announced].⁸²⁸
74. 踏上强军兴国新征程——国防科学技术大学全面深化改革纪事 [Chronicle of the Comprehensive Deepening Reform of National University of Defence Technology].⁸²⁹
75. 用社会主义核心价值观筑牢教育出版阵地 [Consolidating the education publishing with core socialist values].⁸³⁰
76. 戴玉强携音乐慕课走进人大附中 [Dai Yuqiang brought music MOOC to the High School Affiliated to Renmin University of China].⁸³¹
77. 开设创新创业必修课、允许学生休学创业、建立全国万名优秀创新创业导师人才库……国务院办公厅出台意见力推高校创新创业教育改革——高校如何上好创业课 [The General Office of the State Council issued opinions to promote the reform of innovation and entrepreneurship education in universities].⁸³²
78. 超越因材施教尚需深度变革 [In-depth reform is required to beyond teaching in accordance with one's aptitude].⁸³³

⁸²⁶ Li, Y. (2015, April 14). 科研道路要怎样走? ——首批十八位博士谈治学与科研 [How to conduct scientific research – Experience sharing by the first batch of 18 doctors.]? Guangming Daily, 14, hereinafter GD 71.

⁸²⁷ Guangming Daily. (2015, April, 17). 中国图书评论学会“中国好书” [Books recommended by China Book Review Society]. Guangming Daily, 09, hereinafter GD 72.

⁸²⁸ Du, Y. (2015, April 24). 第十届文津图书奖揭晓 [The 10th Wenjin Book Awards announced]. Guangming Daily, 09, hereinafter GD 73.

⁸²⁹ Lv, C. (2015, May 6). 踏上强军兴国新征程——国防科学技术大学全面深化改革纪事 [Chronicle of the Comprehensive Deepening Reform of National University of Defence Technology]. Guangming Daily, 11, hereinafter GD 74.

⁸³⁰ Su, Y. (2015, May 6). 用社会主义核心价值观筑牢教育出版阵地 [Consolidating the education publishing with core socialist values]. Guangming Daily, 07, hereinafter GD 75.

⁸³¹ Jin, X. (2015, May 15). 戴玉强携音乐慕课走进人大附中 [Dai Yuqiang brought music MOOC to the High School Affiliated to Renmin University of China]. Guangming Daily, 10, hereinafter GD 76.

⁸³² Deng, H. (2015, May 15). 开设创新创业必修课、允许学生休学创业、建立全国万名优秀创新创业导师人才库……国务院办公厅出台意见力推高校创新创业教育改革——高校如何上好创业课 [The General Office of the State Council issued opinions to promote the reform of innovation and entrepreneurship education in universities]. Guangming Daily, 10, hereinafter GD 77.

⁸³³ Lu, X. (2015, May 26). 超越因材施教尚需深度变革 [In-depth reform is required to beyond teaching in accordance with one's aptitude]. Guangming Daily, 13, hereinafter GD 78.

79. 高铁走出去铁路院校怎么办 [What should railway colleges do as Chinese high-speed rail goes abroad]?⁸³⁴
80. 一堂生动有用的课——复旦大学思政课改革记 [The reform of ideological and political education at Fudan University].⁸³⁵
81. 为高校培养高铁国际人才提供助力 [Assist colleges in fostering high-speed rail international talents].⁸³⁶
82. 新视点：创业教育要有机融入专业教育 [New perspective: Entrepreneurship education should be integrated into professional education].⁸³⁷
83. 彰显理论力量 打牢信仰根基——高校思想政治理论课“05 方案”十年成就师生谈 [Ten-years achievements of the “05 project” of ideological and political theory courses].⁸³⁸
84. “互联网+”将推动什么 [What will “Internet Plus” trigger]?⁸³⁹
85. 慕课发展面临的挑战 [Challenges for MOOC development].⁸⁴⁰
86. 我们的本科教育缺什么？怎么改？ [What is missing in our undergraduate education? How to fix it]?⁸⁴¹
87. 让外语教学行走于微课和翻转课堂 [Apply micro-course and flipped classroom in foreign languages teaching].⁸⁴²
88. 慕课新模式推进教育资源均衡发展 [MOOC model promotes the balanced development of educational resources].⁸⁴³

⁸³⁴ Zheng, J. (2015, June 9). 高铁走出去铁路院校怎么办 [What should railway colleges do as Chinese high-speed rail goes abroad]? *Guangming Daily*, 03, hereinafter GD 79.

⁸³⁵ Deng, H., Cao, J., & Yan, W. (2015, June 10). 一堂生动有用的课——复旦大学思政课改革记 [The reform of ideological and political education at Fudan University]. *Guangming Daily*, 06, hereinafter GD 80.

⁸³⁶ Wang, Z. (2015, June 21). 为高校培养高铁国际人才提供助力 [Assist colleges in fostering high-speed rail international talents]. *Guangming Daily*, 07, hereinafter GD 81.

⁸³⁷ Li, W. (2015, June 23). 新视点：创业教育要有机融入专业教育 [New perspective: Entrepreneurship education should be integrated into professional education]. *Guangming Daily*, 13, hereinafter GD 82.

⁸³⁸ Wang, S. (2015, July 9). 彰显理论力量 打牢信仰根基——高校思想政治理论课“05 方案”十年成就师生谈 [Ten-years achievements of the “05 project” of ideological and political theory courses] *Guangming Daily*, 16, hereinafter GD 83.

⁸³⁹ Xia, L. (2015, July 21). “互联网+”将推动什么 [What will “Internet Plus” trigger]? *Guangming Daily*, 13, hereinafter GD 84.

⁸⁴⁰ Lv, X. (2015, August 4). 慕课发展面临的挑战 [Challenges for MOOC development]. *Guangming Daily*, 13, hereinafter GD 85.

⁸⁴¹ Ma, L. (2015, August 04). 我们的本科教育缺什么？怎么改？ [What is missing in our undergraduate education? How to fix it]? *Guangming Daily*, 14, hereinafter GD 86.

⁸⁴² Zhou, M. (2015, August 08). 让外语教学行走于微课和翻转课堂 [Apply micro-course and flipped classroom in foreign languages teaching]. *Guangming Daily*, 13, hereinafter GD 87.

⁸⁴³ Jin, X. (2015, August 27). 慕课新模式推进教育资源均衡发展 [MOOC model promotes the balanced development of educational resources]. *Guangming Daily*, 08, hereinafter GD 88.

89. 北大“艺术与审美”共享课程上线 [Peking University's MOOC *Art and Aesthetics goes live*].⁸⁴⁴
90. 中国，汇聚世界马克思主义最强音——写在中国主办的首届“世界马克思主义大会”开幕之际 [The world's strongest voices of Marxism gather in China - at the opening of the first global Marxism Conference hosted by China].⁸⁴⁵
91. 牌子强起来 方法活起来 课程火起来 北京在高校树立马克思主义领航地位 [Beijing establishes a leading position of Marxism in colleges].⁸⁴⁶
92. 专家热议“互联网+”时代教育 [Education in the age of the Internet +].⁸⁴⁷
93. 在线教学的学习效果更好 [Online teaching is better for learning].⁸⁴⁸
94. 清华大学发布系列教育技术新成果 [Tsinghua University releases a series of new achievements in educational technology].⁸⁴⁹
95. 走进生活的互联网+, 互联网+能否破解“上学难” [Can Internet + solve the difficulty of going to school].⁸⁵⁰
96. 农村孩子到底要不要上“烂大学” [Should rural kids go to “bad universities”]?⁸⁵¹
97. 观察·天津大学联合南开中学探索新的教育形式，一年多来，意料之外的“冲突”与收获耐人寻味——一场破解“学习迷茫症”的试验 [Observation: The experiment taken by Tianjin University and Nankai Middle School for new education forms].⁸⁵²

⁸⁴⁴ Wang, Q., & Liu, Q. (2015, September 1). 北大“艺术与审美”共享课程上线 [Peking University's MOOC *Art and Aesthetics goes live*]. *Guangming Daily*, 06, hereinafter GD 89.

⁸⁴⁵ Wang, S. & Zhang, S. (2015, October 9). 中国，汇聚世界马克思主义最强音——写在中国主办的首届“世界马克思主义大会”开幕之际 [The world's strongest voices of Marxism gather in China - at the opening of the first global Marxism Conference hosted by China]. *Guangming Daily*, 01,03, hereinafter GD 90.

⁸⁴⁶ Dong, C., & Zhang, J. (2015, October 18). 牌子强起来 方法活起来 课程火起来 北京在高校树立马克思主义领航地位 [Beijing establishes a leading position of Marxism in colleges]. *Guangming Daily*, 01, hereinafter GD 91.

⁸⁴⁷ Gao, J. & Jin, Z. (2015, October 19). 专家热议“互联网+”时代教育 [Education in the age of the Internet +]. *Guangming Daily*, 06, hereinafter GD 92.

⁸⁴⁸ Lv, K. (2015, October 29). 在线教学的学习效果更好 [Online teaching is better for learning]. *Guangming Daily*, 15, hereinafter GD 93.

⁸⁴⁹ Wang, Q. (2015, November 3). 清华大学发布系列教育技术新成果 [Tsinghua University releases a series of new achievements in educational technology]. *Guangming Daily*, 06, hereinafter GD 94.

⁸⁵⁰ Lv, S. (2015, November 13). 走进生活的互联网+, 互联网+能否破解“上学难” [Can Internet + solve the difficulty of going to school]. *Guangming Daily*, 11, hereinafter GD 95.

⁸⁵¹ Yang, S. (2015, November 17). 农村孩子到底要不要上“烂大学” [Should rural kids go to “bad universities”]? *Guangming Daily*, 14, hereinafter GD 96.

⁸⁵² Chen, J., & Liu, X. (2015, November 24). 观察·天津大学联合南开中学探索新的教育形式，一年多来，意料之外的“冲突”与收获耐人寻味——一场破解“学习迷茫症”的试验 [Observation: The experiment taken by Tianjin University and Nankai Middle School for new education forms]. *Guangming Daily*, 05, hereinafter GD 97.

98. Xie, X., & Li, Y. (2015, November 30). 校园书香·礼敬中华优秀传统文化 山东大学: “文学生活”渐成风气 [The literary atmosphere formed in Shandong University].⁸⁵³
99. 慕课大学先修课: 能否跑好人才培养的“接力赛” [Can MOOCAP help with talent training].⁸⁵⁴
100. 教育信息化的“常州样本”——江苏常州数字化教育改革发展纪实 [The Changzhou Sample of educational informatization].⁸⁵⁵
101. 浙工商大: “创业管理”微专业上线 [Zhejiang Gongshang University launches micro-bachelor programme “Entrepreneurial Management” online].⁸⁵⁶
102. 新疆大学: 探索“双创”培养新模式 [Xinjiang University explores new model of Mass Entrepreneurship and Innovation Training].⁸⁵⁷
103. 雾霾停课引发线上线下教育新思考 [Class suspension caused by smog triggers new thinking on blended education].⁸⁵⁸
104. 一线调研做好“融合”的大文章 [Beijing promotes the integrated development with relevant industries of cultural creativity and design services].⁸⁵⁹

2016: 52 Articles

105. 对教育本质的新认识 [New understanding of the nature of education].⁸⁶⁰
106. 慕课大学先修课助推教育改革 [MOOCAP promotes the educational reform].⁸⁶¹

⁸⁵³ Xie, X., & Li, Y. (2015, November 30). 校园书香·礼敬中华优秀传统文化 山东大学: “文学生活”渐成风气 [The literary atmosphere formed in Shandong University]. *Guangming Daily*, 04, hereinafter GD 98.

⁸⁵⁴ Deng, H. (2015, December 3). 慕课大学先修课: 能否跑好人才培养的“接力赛” [Can MOOCAP help with talent training]. *Guangming Daily*, 05, hereinafter GD 99.

⁸⁵⁵ Su, Y., & Li, J. (2015, December 7). 教育信息化的“常州样本”——江苏常州数字化教育改革发展纪实 [The Changzhou Sample of educational informatization]. *Guangming Daily*, 06, hereinafter GD 100.

⁸⁵⁶ Yan, H. (2015, December 15). 浙工商大: “创业管理”微专业上线 [Zhejiang Gongshang University launches micro-bachelor programme “Entrepreneurial Management” online]. *Guangming Daily*, 06, hereinafter GD 101.

⁸⁵⁷ Wang, S. (2015, December 21). 新疆大学: 探索“双创”培养新模式 [Xinjiang University explores new model of Mass Entrepreneurship and Innovation Training]. *Guangming Daily*, 05, hereinafter GD 102.

⁸⁵⁸ Jin, X. (2015, December 23). 雾霾停课引发线上线下教育新思考 [Class suspension caused by smog triggers new thinking on blended education]. *Guangming Daily*, 06, hereinafter GD 103.

⁸⁵⁹ Tang, N. (2015, December 27). 一线调研做好“融合”的大文章 [Beijing promotes the integrated development with relevant industries of cultural creativity and design services]. *Guangming Daily*, 08, hereinafter GD 104.

⁸⁶⁰ Gu, M. (2016, January 5). 对教育本质的新认识 [New understanding of the nature of education]. *Guangming Daily*, 14, hereinafter GD 105.

⁸⁶¹ Yu, S. (2016, January 5). 慕课大学先修课助推教育改革 [MOOCAP promotes the educational reform]. *Guangming Daily*, 13, hereinafter GD 106.

107. 如何提高国学课堂上的“抬头率” [How to catch students' attention in the Chinese Studies class].⁸⁶²
108. 大学去行政化并非弱化管理 [De-administration of universities doesn't mean weaken management].⁸⁶³
109. 2015 年度中国十大学术热点 [Top ten academic focuses in China in 2015].⁸⁶⁴
110. “中国大学 MOOC”研讨会召开 [The symposium of MOOC platform icourse163 held].⁸⁶⁵
111. 向网络要教学战斗力 [Get teaching power from the Internet].⁸⁶⁶
112. 雾霾天停课 互联网助力“不停学” [Internet helps to continue learning in smoggy days when classes suspended].⁸⁶⁷
113. 中国共产党与互联网治理的中国经验 [The CPC and the Chinese experience of Internet Governance].⁸⁶⁸
114. 布隆博格公共卫生学院：公共卫生领域的顶级智库 [Bloomberg School of Public Health: The top think tank in the field of public health].⁸⁶⁹
115. 郑州大学：传承信仰 入脑入心 [Ideological and political theory education in Zhengzhou University].⁸⁷⁰
116. 在中国特色强军之路上阔步前行——党的十八大以来习近平主席和中央军委推进强军兴军纪实 [Documentary on strengthening and prospering the armed force since the 18th National Congress of the CPC].⁸⁷¹

⁸⁶² Liu, D. (2015, January 12). 如何提高国学课堂上的“抬头率” [How to catch students' attention in the Chinese Studies class]. *Guangming Daily*, 13, hereinafter GD 107.

⁸⁶³ Xi, Y. (2015, January 12). 大学去行政化并非弱化管理 [De-administration of universities doesn't mean weaken management]. *Guangming Daily*, 13, hereinafter GD 108.

⁸⁶⁴ Ma, Z. (2015, January 13). 2015 年度中国十大学术热点 [Top ten academic focuses in China in 2015]. *Guangming Daily*, 16, hereinafter GD 109.

⁸⁶⁵ Jin, H. (2016, January 20). “中国大学 MOOC”研讨会召开 [The symposium of MOOC platform icourse163 held]. *Guangming Daily*, 08, hereinafter GD 110.

⁸⁶⁶ Ren, T. (2016, January 20). 向网络要教学战斗力 [Get teaching power from the Internet]. *Guangming Daily*, 11, hereinafter GD 111.

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119. 创新教育如何教 [How to teach innovative education]?⁸⁷⁴
120. 制约教育消费的几个问题 [Issues restricting educational consumption].⁸⁷⁵
121. 《中国 MOOCs 建设与发展白皮书》发布 [White paper on China's MOOCs construction development is issued].⁸⁷⁶
122. “互联网+教育”还是“教育+互联网” [“Internet + education” or “education + Internet”]?⁸⁷⁷
123. 乔治·西门子 (全球首门慕课课程负责人): 慕课不会引发教育系统性变革 [George Siemens: MOOC will not lead to systemic reform in education].⁸⁷⁸
124. 什么是好的通识教育 [What is a good general education]?⁸⁷⁹
125. 中外大学校长纵论“数字化时代的大学未来” [The future of university in the digital age].⁸⁸⁰
126. 复旦大学: 实践教学让理论教育“活”起来 [Fudan University: Practice teaching makes theoretical education “live”].⁸⁸¹

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129. 厦大嘉庚学院：“互联网+”带出校园新特色 [Xiamen University Tan Kah Kee College: “Internet +” brings new campus features].⁸⁸⁴
130. 演武堂·我们正在经历人类历史上前所未有之大变局，而能成功应对这一变局的，除了智慧还是智慧 瞄准未来战争锻造智能型军人 [Forge intelligent soldiers for future war to deal with the unprecedented changes in human history].⁸⁸⁵
131. 前所未有的机遇与挑战 [Unprecedented opportunities and challenges].⁸⁸⁶
132. 湖北大学：深化学校体育改革 着力解决五大教学问题 [Hubei University: deepen the reform of physical education, focus on solving five major teaching problems].⁸⁸⁷
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135. 永在探索《共产党宣言》的途中 [Always on the way to explore the Manifesto].⁸⁹⁰
136. 中国大学先修课 [The official website of Chinese Advanced Placement MOOC goes live].⁸⁹¹
137. 2016 年度全国教书育人楷模候选人简介 [2016 National Model candidates for Teaching and Educating].⁸⁹²
138. 教学信息化必须面向教改实际 [Teaching informatisation must meet the reality of teaching reform].⁸⁹³
139. 未来学校在未来，也在路上 [The future school is on the way].⁸⁹⁴
140. 课程改革，推动职教突破发展 [Curriculum reform promotes the breakthrough development of vocational education].⁸⁹⁵
141. 教学创新为什么这么难 [Why it is so difficult to make teaching innovation]?⁸⁹⁶
142. 点亮创新的火种——写在第三十二个教师节之际 [Light up the fire of innovation – written on the occasion of the 32nd Teacher's Day].⁸⁹⁷
143. 首批科技教育“慕课”在延安开课 [The first science and technology education MOOCs start in Yan'an].⁸⁹⁸

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144. 强国必须强语，强语助力强国——专家学者解读《国家语言文字事业“十三五”发展规划》 [The 13th Five-Year Development Plan for Spoken and Written Chinese Language].⁸⁹⁹
145. 教育对外开放需扎根中国大地 [Education opening up need to take root in China].⁹⁰⁰
146. 高校“一把手”如何提升信息化领导力 [How can university presidents improve informatization leadership]?⁹⁰¹
147. 中共中央 国务院印发《“健康中国 2030”规划纲要》 [The State Council issued an outline of the country's 2030 health plan].⁹⁰²
148. 梦课”：官兵成才大课堂——国防科大大规模开放在线课程建设纪事 [The NUDT MOOC make soldiers' university dream realized].⁹⁰³
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150. 以体系建设破解教育信息化的“顶棚效应” [Break the “roof effect” of education informatization with system construction].⁹⁰⁵
151. 西方世界的国际教育战略图景 [The Strategic Plan of Western international education].⁹⁰⁶
152. 《〈资治通鉴〉与家国兴衰》 [Zizhi Tongjian and the rise and fall of countries].⁹⁰⁷

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153. 传道者首先要明道信道 [The preacher must first understand the doctrine and professional knowledge by themselves].⁹⁰⁸
154. 思政课也能如此火爆——清华大学以混合式教学模式推动思政课改革创新 [Tsinghua University promotes the reform and innovation of ideological and political education with a mixed teaching model].⁹⁰⁹
155. 网络”原住民”创造未来教 [The Network generation creates future education].⁹¹⁰
156. 从”相加”迈向”相融”：光明日报加快媒体融合发展步伐 [Guangming Daily accelerates media integration].⁹¹¹

2017: 43 Articles

157. 南京工程学院将”创新基因”深植校园文化 [Nanjing Institute of Technology roots “innovate genes” in campus culture].⁹¹²
158. 清华大学：严格落实意识形态工作责任制 [Tsinghua University: Strictly implement responsibility system for ideological work].⁹¹³
159. 孔子的社会生活观 [Confucius’ view of social life].⁹¹⁴
160. 立德树人是中国特色社会主义大学立身之本 [Fostering integrity is the fundamental task of universities of Socialism with Chinese Characteristics].⁹¹⁵

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161. 江南大学：脱口秀让思政课不再沉闷 [Jiangnan University: Talk show makes ideological and political theory classes no longer boring].⁹¹⁶
162. 思政课怎样摆脱“各自为战”[How can ideological and political theory courses get rid of “fighting separately”].⁹¹⁷
163. 信息技术带来教育变革 [Information technology brings educational changes].⁹¹⁸
164. 北京大学教授李晓明委员：高校优秀课程可通过慕课向公众开放 [Prof. Li of Peking University: Open excellent university courses to the public via MOOCs].⁹¹⁹
165. 法学毕业生 为何就业难 [Why it is difficult for law graduates to find a job].
920
166. 在职教师该不该网络授课 [Should teachers in-service be allowed to teach online]?⁹²¹
167. 我们的慕课是否“待字闺中” [Are Chinese MOOCs far away from being popular].⁹²²
168. 大数据驱动教育变革与创新 [Dig data drives education reform and innovation].⁹²³
169. 下好媒体融合先手棋 打好理论传播主动仗 光明日报思想理论融媒体传播工程 光明智库同日启航 [Guangming Think Tank and Guangming Daily’s media convergence project of ideological theory].⁹²⁴

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170. 未来型大学，造就怎样的师生 [What kind of teachers and students will future university bring].⁹²⁵
171. 中华经典教育也需协同创新 [Chinese classic culture education needs innovation].⁹²⁶
172. 用文明滋养校园——全国文明校园创建工作推进会发言摘登 [Excerpts of the speeches at the National Civilized Campus Construction Meeting].⁹²⁷
173. 坚定文化自信 打造传世精品 [Create cultural boutique].⁹²⁸
174. 中小学在线教育如何找到变革支点 [How to find the fulcrum of change for online education in primary and secondary schools].⁹²⁹
175. 坚定不移听党话跟党走——走中国特色强军之路述评之一 [Follow the CPC – Review on the road of building a strong army with Chinese characteristics].⁹³⁰
176. 教育的未来已来 [The future of education is coming].⁹³¹
177. 面向现实与未来 教育需要向共享教育的理念转化 [Facing the reality and the future, the concept of education should be transformed into sharing education].⁹³²
178. 爱上思政课 [Fall in love with ideological and political theory courses].⁹³³
179. 体质下降，生活很“作”——拿什么教会大学生健康地生活 [How to teach college students live healthily].⁹³⁴

⁹²⁵ Zou, G. (2017, April 27). 未来型大学，造就怎样的师生 [What kind of teachers and students will future university bring]. *Guangming Daily*, 14, hereinafter GD 170.

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⁹²⁸ Li, Y. (2017, July 11). 坚定文化自信 打造传世精品 [Create cultural boutique]. *Guangming Daily*, 08, hereinafter GD 173.

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⁹³³ Feng, J., Chai, R., & Jin, H. (2017, August 15). 爱上思政课 [Fall in love with ideological and political theory courses]. *Guangming Daily*, 01, hereinafter GD 178.

⁹³⁴ Jin, H. (2017, August 18). 体质下降，生活很“作”——拿什么教会大学生健康地生活 [How to teach college students live healthily]. *Guangming Daily*, 06, hereinafter GD 179.

180. 建设强军兴国的“人才航母”——国防科技大学牢记习主席嘱托奏响新型军事人才培养时代强音 [Build a *talent carrier* – NUDT aims to training high-qualified modern military talent].⁹³⁵
181. 始终把立德树人作为学校立身之本 [Always take fostering virtue as the fundamental task of universities].⁹³⁶
182. 乐山师范学院：质量为本，加强应用型人才培养 [Leshan Normal University: strengthen the cultivation of applied talents with a quality orientation].⁹³⁷
183. 政治建军，固本开新永向前——以习近平同志为核心的党中央领导和推进强军兴军纪实之二 [The second documentary of building a strong army under the leadership of the Party Central Committee with Comrade Xi Jinping at its core].⁹³⁸
184. 通识教育要立足文化自信，紧密结合专业 [General education should combine with subjects , on the basis of cultural confidence].⁹³⁹
185. 扎根中国大地办大学 亟须高等教育发展理论中国化 [The urgent demand of Sinicizing higher education theory].⁹⁴⁰
186. 锻造忠诚善战的海空追梦人——海军航空大学遵照习主席指示培养强军人才纪事 [Naval Aviation University follows Chairman Xi’s instruction to train strong military talents].⁹⁴¹
187. 湖北：打造高校“思政熔炉” [Hubei: build up “Melting Pot” for ideological and political education in universities].⁹⁴²

⁹³⁵ Li, Z. (2017, August 21). 建设强军兴国的“人才航母”——国防科技大学牢记习主席嘱托奏响新型军事人才培养时代强音 [Build a *talent carrier* – NUDT aims to training high-qualified modern military talent]. Guangming Daily, 05, hereinafter GD 180.

⁹³⁶ Jiao, Y. (2017, August 24). 始终把立德树人作为学校立身之本 [Always take fostering virtue as the fundamental task of universities]. Guangming Daily, 05, hereinafter GD 181.

⁹³⁷ Guangming Daily. (2017, August 31). 乐山师范学院：质量为本，加强应用型人才培养 [Leshan Normal University: strengthen the cultivation of applied talents with a quality orientation]. Guangming Daily, 07, hereinafter GD 182.

⁹³⁸ Li, X., Wang, J., Ding, H., Ou, C., & Zhang, L. (2017, August 31). 政治建军，固本开新永向前——以习近平同志为核心的党中央领导和推进强军兴军纪实之二 [The second documentary of building a strong army under the leadership of the Party Central Committee with Comrade Xi Jinping at its core]. Guangming Daily, 01, 06, hereinafter GD 183.

⁹³⁹ Wang, Q. (2017, September 2). 通识教育要立足文化自信，紧密结合专业 [General education should combine with subjects, on the basis of cultural confidence]. Guangming Daily, 10, hereinafter GD 184.

⁹⁴⁰ Lu, X. (2017, September 5). 扎根中国大地办大学 亟须高等教育发展理论中国化 [The urgent demand of sinicizing higher education theory]. Guangming Daily, 13, hereinafter GD 185.

⁹⁴¹ Zhang, W. (2017, September 27). 锻造忠诚善战的海空追梦人——海军航空大学遵照习主席指示培养强军人才纪事 [Naval Aviation University follows Chairman Xi’s instruction to train strong military talents]. Guangming Daily, 08, hereinafter GD 186.

⁹⁴² Xia, J. (2017, October 13). 湖北：打造高校“思政熔炉” [Hubei: build up “Melting Pot” for ideological and political education in universities]. Guangming Daily, 11, hereinafter GD 187.

188. 做中国高等教育的一面旗帜——清华大学贯彻习近平总书记系列重要讲话精神深化改革纪实 [Be a banner of Chinese higher education –Tsinghua University deepens reform as implementing the spirit of a series of important speeches made by Xi Jinping].⁹⁴³
189. 南昌大学：坚持立德树人 增强思想政治教育的实效性 [Nanchang University: Adhere to morality education, strengthen the effectiveness of ideological and political education].⁹⁴⁴
190. 国之所需 吾志所向——北京工业大学贯彻习近平总书记系列重要讲话精神不忘初心服务首都 [Fight for the country need, serve the city – Beijing University of Technology implements the spirit of a series of important speeches made by Xi Jinping].⁹⁴⁵
191. 高校教育和商业培训界限不能模糊——教育界专家学者评析“网红学院” [The boundary between college education and business training should not be blurred – Expert comments on “Internet Celerity Academy”].⁹⁴⁶
192. 用习近平新时代中国特色社会主义思想统领学校改革发展 [Guide university reform and development with Xi Jinping Thought on Socialism with Chinese Characteristics for a New Era].⁹⁴⁷
193. 建设“有灵魂的大学”——深圳大学将十九大精神落实到学校的每一项工作中 [To be a university with soul – Shenzhen University implements the spirit of the 19th CPC National Congress into every task].⁹⁴⁸

⁹⁴³ Deng, H. (2017, October 18). 做中国高等教育的一面旗帜——清华大学贯彻习近平总书记系列重要讲话精神深化改革纪实 [Be a banner of Chinese higher education –Tsinghua University deepens reform as implementing the spirit of a series of important speeches made by Xi Jinping]. *Guangming Daily*, 10, hereinafter GD 188.

⁹⁴⁴ Hu, Y. (2017, October 19). 南昌大学：坚持立德树人 增强思想政治教育的实效性 [Nanchang University: Adhere to morality education, strengthen the effectiveness of ideological and political education]. *Guangming Daily*, 15, hereinafter GD 189.

⁹⁴⁵ Wang, Q. (2017, October 28). 国之所需 吾志所向——北京工业大学贯彻习近平总书记系列重要讲话精神不忘初心服务首都 [Fight for the country need, serve the city – Beijing University of Technology implements the spirit of a series of important speeches made by Xi Jinping]. *Guangming Daily*, 11, hereinafter GD 190.

⁹⁴⁶ Wang, R., & Chu, Y. (2017, November 5). 高校教育和商业培训界限不能模糊——教育界专家学者评析“网红学院” [The boundary between college education and business training should not be blurred – Expert comments on “Internet Celerity Academy”]. *Guangming Daily*, 05, hereinafter GD 191.

⁹⁴⁷ Chen, X. (2017, November 13). 用习近平新时代中国特色社会主义思想统领学校改革发展 [Guide university reform and development with Xi Jinping Thought on Socialism with Chinese Characteristics for a New Era]. *Guangming Daily*, 06, hereinafter GD 192.

⁹⁴⁸ Yan, S., Dang, W. (2017, November 14). 建设“有灵魂的大学”——深圳大学将十九大精神落实到学校的每一项工作中 [To be a university with soul – Shenzhen University implements the spirit of the 19th CPC National Congress into every task]. *Guangming Daily*, 07, hereinafter GD 193.

194. 山东省潍坊市寒亭区全面推进教育均衡发展 [Hanting District, Weifang, Shandong Province, comprehensively promotes balanced development of education].⁹⁴⁹
195. 新时代，如何推动教育治理与教育法治 [How to promote education governance and education nomocracy].⁹⁵⁰
196. 党建引领 砥砺前行 办好中国特色社会主义民办大学 [Lead in Party building, run private university of Socialism with Chinese Characteristics].⁹⁵¹
197. 打造“厚基础+精技能”培养体系 [Build an “efficient knowledge + fine skills” training system].⁹⁵²
198. 增强办学治校本领 建设世界一流大学——武汉大学将十九大精神融入推动内涵式发展的实际行动 [Enhance university management, fight to be a world-class university – Wuhan University’ practices of implement the spirit of the 19th CPC National Congress].⁹⁵³
199. 新年致读者 [New Year Greeting].⁹⁵⁴

2018: 31 Articles

200. 湖北：领导干部与学生同上思政课 [Hubei, leading cadres and students take ideological and political theory course together].⁹⁵⁵

⁹⁴⁹ Niu, W. (2017, November 15). 山东省潍坊市寒亭区全面推进教育均衡发展 [Hanting District, Weifang, Shandong Province, comprehensively promotes balanced development of education]. *Guangming Daily*, 10, hereinafter GD 194.

⁹⁵⁰ Cao, J., & Yan, W. (2017, December 2). 新时代，如何推动教育治理与教育法治 [How to promote education governance and education nomocracy]. *Guangming Daily*, 10, hereinafter GD 195.

⁹⁵¹ *Guangming Daily* (2017, December 18). 党建引领 砥砺前行 办好中国特色社会主义民办大学 [Lead in Party building, run private university of Socialism with Chinese Characteristics]. *Guangming Daily*, 11, hereinafter GD 196.

⁹⁵² Liu, Y., Hu, F. (2017, December 20). 打造“厚基础+精技能”培养体系 [Build an “efficient knowledge + fine skills” training system]. *Guangming Daily*, 15, hereinafter GD 197.

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⁹⁵⁴ *Guangming Daily* (2017, December 29). 新年致读者 [New Year Greeting]. *Guangming Daily*, 01, hereinafter GD 199.

⁹⁵⁵ Xia, J. (2018, January 6). 湖北：领导干部与学生同上思政课 [Hubei, leading cadres and students take ideological and political theory course together]. *Guangming Daily*, 02, hereinafter GD 200.

201. 首批四百九十门”国家精品在线开放课程”上线 中国慕课向高质量发展 [The first 490 national-level MOOCs go live, China’s MOOCs develop towards high quality].⁹⁵⁶
202. 推出国家精品在线开放课, 490 门是个好开端 [490 MOOCs are a good start for the national-level MOOC plan].⁹⁵⁷
203. 建立科学统一规范的高校学分绩点评价体系 [Establish a scientific standard evaluation system of college grades].⁹⁵⁸
204. 江南大学思政课教学改革: 内容实起来 师生动起来 课堂活起来 [The teaching reform of ideological and political education at Jiangnan University].⁹⁵⁹
205. 200 人的教室挤进 500 人 只为听她讲数学课 [200 person squeezed into a classroom for 500, just for her mathematic lesson].⁹⁶⁰
206. 创新型人民军队如何建成 [How to build up an innovative Chinese army]?⁹⁶¹
207. 在新时代唱响雷锋赞歌——陆军部队广泛开展学雷锋活动综述 [Summary of Army Forces' Activities to Learn from Lei Feng].⁹⁶²
208. 乐山师范学院: 扎根教育 40 年 勇立潮头敢争先 [Leshan Normal University: 40 years rooted in education with active innovation].⁹⁶³
209. 湖南农业大学: 紧扣”三农”发展需求 精耕双创人才培养 [Hunan Agricultural University: keep in line with the development needs of agriculture, farmer and rural area, cultivate talents for mass entrepreneurship and innovation].⁹⁶⁴

⁹⁵⁶ Chen, P. (2018, January 18). 首批四百九十门“国家精品在线开放课程”上线 中国慕课向高质量发展 [The first 490 national-level MOOCs go live, China’s MOOCs develop towards high quality]. Guangming Daily, 01, hereinafter GD 201.

⁹⁵⁷ Wang, Z. (2018, January 19). 推出国家精品在线开放课, 490 门是个好开端 [490 MOOCs are a good start for the national-level MOOC plan]. Guangming Daily, 02, hereinafter GD 202.

⁹⁵⁸ Lv, X. (2018, January 20). 建立科学统一规范的高校学分绩点评价体系 [Establish a scientific standard evaluation system of college grades]. Guangming Daily, 06, hereinafter GD 203.

⁹⁵⁹ Su, Y. (2018, January 27). 江南大学思政课教学改革: 内容实起来 师生动起来 课堂活起来 [The teaching reform of ideological and political education at Jiangnan University]. Guangming Daily, 02, hereinafter GD 204.

⁹⁶⁰ Bi, Y., & Liu, Y. (2018, February 9). 200 人的教室挤进 500 人 只为听她讲数学课 [200 person squeezed into a classroom for 500, just for her mathematic lesson]. Guangming Daily, 04, hereinafter GD 205.

⁹⁶¹ Long, F., & Gai, L. (2018, February 24). 创新型人民军队如何建成 [How to build up an innovative Chinese army]? Guangming Daily, 07, hereinafter GD 206.

⁹⁶² Liu, X. (2018, March 7). 在新时代唱响雷锋赞歌——陆军部队广泛开展学雷锋活动综述 [Summary of Army Forces' Activities to Learn from Lei Feng]. Guangming Daily, 15, hereinafter GD 207.

⁹⁶³ He, W. (2018, April 2). 乐山师范学院: 扎根教育 40 年 勇立潮头敢争先 [Leshan Normal University: 40 years rooted in education with active innovation]. Guangming Daily, 108.

⁹⁶⁴ Li, M., & Zhang, Z. (2018, April 13). 湖南农业大学: 紧扣“三农”发展需求 精耕双创人才培养 [Hunan Agricultural University: keep in line with the development needs of agriculture, farmer and rural area, cultivate talents for mass entrepreneurship and innovation]. Guangming Daily, 07, hereinafter GD 209.

210. 安徽财经大学：以学生为中心 创新育人体系显成效 [Anhui University of Finance and Economics: the student-centred innovative education system functions].⁹⁶⁵
211. 把历史讲“活” 实现价值引领——记浙江大学教授段治文的慕课课程 [The history MOOC given by Prof. Duan Zhiwen of Zhejiang University].⁹⁶⁶
212. 中国慕课 跑在世界发展前列 [Chinese MOOCs lead the globe MOOC development].⁹⁶⁷
213. 让学生真学、真懂、真信”——江西师范大学思想政治理论课改革见闻 [The ideological and political theory courses at Jingxi Normal University].⁹⁶⁸
214. 黄冈师范学院 强化职业技能 凸显黄冈特色 [Huanggang Normal College: strengthen vocational skills, highlight Huanggang characteristics].⁹⁶⁹
215. 从“条块分割”到“协同育人”——福建师范大学以“大思政”格局打造一体化育人体系 [Fujian Normal University forges an integrated education system with a general ideological and political education pattern].⁹⁷⁰
216. 媒体融合向知识服务延伸靠什么 [Extend media convergence to knowledge service].⁹⁷¹
217. 为前沿产业办教育——苏州工业园区服务外包职业学院十年发展掠影 [Education for frontier industries – A glimpse of the ten-year development of Suzhou Industrial Park Institute of Service Outsourcing].⁹⁷²

⁹⁶⁵ Guangming Daily (2018, April 16). 安徽财经大学：以学生为中心 创新育人体系显成效 [Anhui University of Finance and Economics: the student-centred innovative education system functions.]. Guangming Daily, 10, hereinafter GD 210.

⁹⁶⁶ Lu, J. (2018, April 17). 把历史讲“活” 实现价值引领——记浙江大学教授段治文的慕课课程 [The history MOOC given by Prof. Duan Zhiwen of Zhejiang University]. Guangming Daily, 08, hereinafter GD 211.

⁹⁶⁷ Deng, H. (2018, April 17). 中国慕课 跑在世界发展前列 [Chinese MOOCs lead the globe MOOC development]. Guangming Daily, 03, hereinafter GD 212.

⁹⁶⁸ Hu, X. (2018, April 18). 让学生真学、真懂、真信”——江西师范大学思想政治理论课改革见闻 [The ideological and political theory courses at Jingxi Normal University]. Guangming Daily, 08, hereinafter GD 213.

⁹⁶⁹ Wang, S., Luo, J., & Hu, S. (2018, April 26). 黄冈师范学院 强化职业技能 凸显黄冈特色 [Huanggang Normal College: strengthen vocational skills, highlight Huanggang characteristics]. Guangming Daily, 12, hereinafter GD 21.

⁹⁷⁰ Gao, J. (2018, April 27). 从“条块分割”到“协同育人”——福建师范大学以“大思政”格局打造一体化育人体系 [Fujian Normal University forges an integrated education system with a general ideological and political education pattern]. Guangming Daily, 05, hereinafter GD 215.

⁹⁷¹ Ma, J. (2018, May 6). 媒体融合向知识服务延伸靠什么 [Extend media convergence to knowledge service]. Guangming Daily, 07, hereinafter GD 216.

⁹⁷² Su, Y. (2018, May 16). 为前沿产业办教育——苏州工业园区服务外包职业学院十年发展掠影 [Education for frontier industries – A glimpse of the ten-year development of Suzhou Industrial Park Institute of Service Outsourcing]. Guangming Daily, 13, hereinafter GD 217.

218. 高校教材盗版缘何愈演愈烈 [Why the piracy of college textbooks is increasing]?⁹⁷³
219. 让思政教育离学生近些，再近些——河南科技学院创新思想政治工作的探索与实践 [Exploration and Practice of Innovative Ideological and Political Work in Henan Institute of Science and Technology].⁹⁷⁴
220. 杭州电子科技大学立足特色办学优势 推动信息人才培养 [Hangzhou Dianzi University promotes the training of information talents based on its unique advantages].⁹⁷⁵
221. “云物移大智”，技术迭代下的高等教育现代化 [Modernization of higher education under technology iteration].⁹⁷⁶
222. 对口支援推动西部高校跨越发展 [Partner assistance model promotes a leapfrog development of universities in western China].⁹⁷⁷
223. 浙江工商大学：基于“文化引领、融合创新、一体多元”的大商科人才培养体系构建与实践 [The construction and practice of talent training system based on the concept of “cultural leading, integration & innovation, diversification” at the Zhejiang Gongshang University].⁹⁷⁸
224. 跳出好心情 舞动新时代——全国多地广场舞见闻 [Public square dancing in several cities].⁹⁷⁹
225. 数字化阅读应更注重深度 [Digital reading should focuses more on quality].⁹⁸⁰

⁹⁷³ Du, Y. (2018, July 11). 高校教材盗版缘何愈演愈烈 [Why the piracy of college textbooks is increasing]? Guangming Daily, 11, hereinafter GD 218.

⁹⁷⁴ Wang, S. (2018, July 19). 让思政教育离学生近些，再近些——河南科技学院创新思想政治工作的探索与实践 [Exploration and Practice of Innovative Ideological and Political Work in Henan Institute of Science and Technology]. Guangming Daily, 05, hereinafter GD 219.

⁹⁷⁵ Hu, H., & He, W. (2018, July 27). 杭州电子科技大学立足特色办学优势 推动信息人才培养 [Hangzhou Dianzi University promotes the training of information talents based on its unique advantages]. Guangming Daily, 10, hereinafter GD 220.

⁹⁷⁶ Beijing Research centre of Xi Jinping Thought on Socialism with Chinese Characteristics in the New Era (2018, August 14). “云物移大智”，技术迭代下的高等教育现代化 [Modernization of higher education under technology iteration]. Guangming Daily, 13, hereinafter GD 221.

⁹⁷⁷ Wang, G. (2018, August 15). 对口支援推动西部高校跨越发展 [Partner assistance model promotes a leapfrog development of universities in western China]. Guangming Daily, 07, hereinafter GD 222.

⁹⁷⁸ Cheng, S., & Li, X. (2018, August 18). 浙江工商大学：基于“文化引领、融合创新、一体多元”的大商科人才培养体系构建与实践 [The construction and practice of talent training system based on the concept of “cultural leading, integration & innovation, diversification” at the Zhejiang Gongshang University]. Guangming Daily, 03, hereinafter GD 223.

⁹⁷⁹ Song, X., Zeng, Y., & Long, J. (2018, August 24). 跳出好心情 舞动新时代——全国多地广场舞见闻 [Public square dancing in several cities]. Guangming Daily, 09, hereinafter GD 224.

⁹⁸⁰ Cheng, X. (2018, August 26). 数字化阅读应更注重深度 [Digital reading should focuses more on quality]. Guangming Daily, 12, hereinafter GD 225.

226. 怎样学、为谁学：高校学风建设的主题 [Themes of the construction of college academic discipline].⁹⁸¹
227. 湖北：探索创新思政工作实效机制 [Hubei explores the effective mechanism of innovative ideological and political work].⁹⁸²
228. 感动·毕业季”微视频大赛结果揭晓《清华零点后》获特等奖 [The result of a micro-video contest for graduation season].⁹⁸³
229. 引导青少年扣好人生第一粒扣子 [Guide young people to buckle the first button in their lives].⁹⁸⁴
230. 江南大学：抓实基层党建 培养一流人才 [Jiangnan University: promote community-level Party building, cultivate top talents].⁹⁸⁵

2019: 64 Articles

231. 河北科技大学：“热点问题半月谈”25年常讲常新 [Fortnightly review on hot issues of social concern – a 25-year popular course at the Hebei University of Science and Technology].⁹⁸⁶
232. 把工作做进人的心灵里——党的十九大以来高校党的建设与思想政治工作综述 [Summary of the Party building and ideological and political work in Colleges and Universities since the 19th CPC National Congress].⁹⁸⁷
233. 信息化 变革教育体系的新内生变量 [Informatization, the new endogenous variable to change the education system].⁹⁸⁸

⁹⁸¹ Guan, Z. (2018, September 4). 怎样学、为谁学：高校学风建设的主题 [Themes of the construction of college academic discipline]. Guangming Daily, 13, hereinafter GD 226.

⁹⁸² Xia, J., & Zhang, R. (2018, September 9). 湖北：探索创新思政工作实效机制 [Hubei explores the effective mechanism of innovative ideological and political work]. Guangming Daily, 04, hereinafter GD 227.

⁹⁸³ Zhou, M. (2018, September 28). 感动·毕业季”微视频大赛结果揭晓《清华零点后》获特等奖 [The result of a micro-video contest for graduation season]. Guangming Daily, 08, hereinafter GD 228.

⁹⁸⁴ Guan, Z. (2018, October 10). 引导青少年扣好人生第一粒扣子 [Guide young people to buckle the first button in their lives]. Guangming Daily, 05, hereinafter GD 229.

⁹⁸⁵ Su, Y., & Zhang, Q. (2018, November 15). 江南大学：抓实基层党建 培养一流人才 [Jiangnan University: promote community-level Party building, cultivate top talents]. Guangming Daily, 05, hereinafter GD 230.

⁹⁸⁶ Geng, J., Chen, Y., & Ren, T. (2019, January 10). 河北科技大学：“热点问题半月谈”25年常讲常新 [Fortnightly review on hot issues of social concern – a 25-year popular course at the Hebei University of Science and Technology]. Guangming Daily, 08, hereinafter GD 231.

⁹⁸⁷ Deng, H. (2019, January 15). 把工作做进人的心灵里——党的十九大以来高校党的建设与思想政治工作综述 [Summary of the Party building and ideological and political work in Colleges and Universities since the 19th CPC National Congress]. Guangming Daily, 01, hereinafter GD 232.

⁹⁸⁸ Yang, Z. (2019, January 22). 信息化 变革教育体系的新内生变量 [Informatization, the new endogenous variable to change the education system]. Guangming Daily, 13, hereinafter GD 233.

234. 给思想充电 为精神加油——山东以“学习强国”激发学习能量[Shandong take the advantages of *Xuexi Qiangguo* APP to stimulate learning energy].⁹⁸⁹
235. 外语类高校人才培养模式怎样创新 [How to innovate talents training model of foreign language universities]?⁹⁹⁰
236. 高校培育核心价值观如何落细落实 [How to cultivate core values in universities].⁹⁹¹
237. 思政课改革创新应深刻把握“八个相统一” [Reform and innovation of ideological and political education should unify in eight aspects].⁹⁹²
238. 大学排行榜缘何既受追捧又被质疑 [Why university rankings are welcomed while questioned].⁹⁹³
239. 掌声响起在思政课堂 [Applause in the ideological and political classroom].⁹⁹⁴
240. 创新让思政课成为“乐趣课” [Innovation makes ideological and political course a “fun course”].⁹⁹⁵
241. 把慕课打造成提升高等教育质量的“金课” [Make MOOC a “golden course” to improve the quality of higher education].⁹⁹⁶
242. 一边是慕课轰轰烈烈，一边是传统教育依然按部就班技术与教育：深度融合不是简单叠加 [Technology and education: in-depth integration is not simple superposition].⁹⁹⁷

⁹⁸⁹ Zhao, Q., & Li, Z. (2019, February 13). 给思想充电 为精神加油——山东以“学习强国”激发学习能量 [Shandong take the advantages of *Xuexi Qiangguo* APP to stimulate learning energy]. *Guangming Daily*, 01, hereinafter GD 234.

⁹⁹⁰ Peng, L. (2019, February 19). 外语类高校人才培养模式怎样创新 [How to innovate talents training model of foreign language universities]? *Guangming Daily*, 13, hereinafter GD 235.

⁹⁹¹ Zhang, Q. (2019, February 26). 高校培育核心价值观如何落细落实 [How to cultivate core values in universities]. *Guangming Daily*, 05, hereinafter GD 236.

⁹⁹² *Guangming Daily* (2019, March 21). 思政课改革创新应深刻把握“八个相统一” [Reform and innovation of ideological and political education should unify in eight aspects]. *Guangming Daily*, 02, hereinafter GD 237.

⁹⁹³ Zhang, X. (2019, March 26). 大学排行榜缘何既受追捧又被质疑 [Why university rankings are welcomed while questioned]. *Guangming Daily*, 13, hereinafter GD 238.

⁹⁹⁴ Yao, X. (2019, March 27). 掌声响起在思政课堂 [Applause in the ideological and political classroom]. *Guangming Daily*, 10, hereinafter GD 239.

⁹⁹⁵ Chen, P. (2019, March 28). 创新让思政课成为“乐趣课” [Innovation makes ideological and political course a “fun course”]. *Guangming Daily*, 16, hereinafter GD 240.

⁹⁹⁶ Luo, R. (2019, April 4). 把慕课打造成提升高等教育质量的“金课” [Make MOOC a “golden course” to improve the quality of higher education]. *Guangming Daily*, 02, hereinafter GD 241.

⁹⁹⁷ Zhu, X. (2019, April 9). 一边是慕课轰轰烈烈，一边是传统教育依然按部就班技术与教育：深度融合不是简单叠加 [Technology and education: in-depth integration is not simple superposition]. *Guangming Daily*, 14, hereinafter GD 242.

243. 慕课：“书本升级”“课堂革命”的未来 [MOOC: the future of textbook upgrades and classroom revolution].⁹⁹⁸
244. 武汉纺织大学：以美育人 以美化人 [Wuhan Textile University's beauty education].⁹⁹⁹
245. 理性审视推动慕课建设行稳致远 [A rational review promotes the construction of MOOC to be stable and far-reaching].¹⁰⁰⁰
246. 2500 门课程上线、2 亿多人次“打卡”线上学习——中国慕课：跑出速度 创新标准 [2500 MOOCs, more than 200 million times online learning – the speed and innovation of China's MOOCs].¹⁰⁰¹
247. 基础教育如何顺应人工智能时代需求 [How basic education meets the needs of the era of artificial intelligence].¹⁰⁰²
248. 识变 求变 应变 未来的慕课，将为你呈现知识森林 [Changes make the future MOOC present a forest of knowledge for you].¹⁰⁰³
249. 慕课·中国速度 [The Chinese speed of MOOC].¹⁰⁰⁴
250. 慕课·世界轨迹 [The world track of MOOC].¹⁰⁰⁵
251. Guangming Daily (2019, April 16). 一堂环保专业课上的思政味道 [ideological and political education in a professional class of environmental protection].¹⁰⁰⁶
252. 在线教育如何健康前行 [How to develop online education properly]?¹⁰⁰⁷

⁹⁹⁸ Yu, S. (2019, April 9). 慕课：“书本升级”“课堂革命”的未来 [MOOC: the future of textbook upgrades and classroom revolution]. Guangming Daily, 14, hereinafter GD 243.

⁹⁹⁹ Xia, J., & Liu, G. (2019, April 9). 武汉纺织大学：以美育人 以美化人 [Wuhan Textile University's beauty education]. Guangming Daily, 08, hereinafter GD 244.

¹⁰⁰⁰ Fei, F. (2019, April 11). 理性审视推动慕课建设行稳致远 [A rational review promotes the construction of MOOC to be stable and far-reaching]. Guangming Daily, 02, hereinafter GD 245.

¹⁰⁰¹ Deng, H. (2019, April 11). 2500 门课程上线、2 亿多人次“打卡”线上学习——中国慕课：跑出速度 创新标准 [2500 MOOCs, more than 200 million times online learning – the speed and innovation of China's MOOCs]. Guangming Daily, 01, hereinafter GD 246.

¹⁰⁰² Zhang, G. (2019, April 11). 基础教育如何顺应人工智能时代需求 [How basic education meets the needs of the era of artificial intelligence]. Guangming Daily, 08, hereinafter GD 247.

¹⁰⁰³ Du, B., & Deng, H. (2019, April 16). 识变 求变 应变 未来的慕课，将为你呈现知识森林 [Changes make the future MOOC present a forest of knowledge for you]. Guangming Daily, 14, hereinafter GD 248.

¹⁰⁰⁴ Guangming Daily (2019, April 16). 慕课·中国速度 [The Chinese speed of MOOC]. Guangming Daily, 14, hereinafter GD 249.

¹⁰⁰⁵ Guangming Daily (2019, April 16). 慕课·世界轨迹 [The world track of MOOC]. Guangming Daily, 14, hereinafter GD 250.

¹⁰⁰⁶ Yan, W., & Cao, J. (2019, April 16). 一堂环保专业课上的思政味道 [ideological and political education in a professional class of environmental protection]. Guangming Daily, 14, hereinafter GD 251.

¹⁰⁰⁷ Feng, T., & Wang, L. (2019, April 23). 在线教育如何健康前行 [How to develop online education properly]? Guangming Daily, 14, hereinafter GD 252.

253. 技术与教育 融合发展亟待全面提速 *The integration of technology and education need to be comprehensively speeded up*.¹⁰⁰⁸
254. 怎么组织知识生产? 怎么运行管理? 怎么评估效益? 高等教育现代化要破解三大难题. [*How to organize knowledge production? How to manage? How to evaluate the benefits? Three difficulties in the modernization of higher education*].¹⁰⁰⁹
255. 坚持立德树人 推进铸魂育人 不断开创新时代思想政治理论课建设新局面 [*Persist in morality education, create a new prospect in the construction of ideological and political theory courses*].¹⁰¹⁰
256. 成都航空职业技术学院: 聚焦航空产业 着力打造技术技能人才培养高地和创新服务平台 [*Chengdu Aeronautic Polytechnic: focus on the aviation industry, strive to build a highland for technical and skilled talents cultivation and an innovative service platform*].¹⁰¹¹
257. 共建 共商 共享公平和质量: 人工智能时代的教育使命 [*Consultation, contribution and shared fairness and quality: the education mission in the era of artificial intelligence*].¹⁰¹²
258. 人工智能与中国教育在融合中普及 (案例) [*Artificial intelligence and China's education are popularized while integrating (cases)*].¹⁰¹³
259. 中国农业大学: 培养拔尖创新农业人才 [*China Agricultural University: Cultivate top-notch innovative agricultural talents*].¹⁰¹⁴

¹⁰⁰⁸ Yang, Z., & Wu, D. (2019, April 23). 技术与教育 融合发展亟待全面提速 *The integration of technology and education need to be comprehensively speeded up*. Guangming Daily, 14, hereinafter GD 253.

¹⁰⁰⁹ Hu, J. (2019, April 23). 怎么组织知识生产? 怎么运行管理? 怎么评估效益? 高等教育现代化要破解三大难题. [*How to organize knowledge production? How to manage? How to evaluate the benefits? Three difficulties in the modernization of higher education*]. Guangming Daily, 13, hereinafter GD 254.

¹⁰¹⁰ Hu, M. (2019, April 24). 坚持立德树人 推进铸魂育人 不断开创新时代思想政治理论课建设新局面 [*Persist in morality education, create a new prospect in the construction of ideological and political theory courses*]. Guangming Daily, 06, hereinafter GD 255.

¹⁰¹¹ Zhang, Z. (2019, May 14). 成都航空职业技术学院: 聚焦航空产业 着力打造技术技能人才培养高地和创新服务平台 [*Chengdu Aeronautic Polytechnic: focus on the aviation industry, strive to build a highland for technical and skilled talents cultivation and an innovative service platform*]. Guangming Daily, 10, hereinafter GD 256.

¹⁰¹² Jin, X. (2019, May 19). 共建 共商 共享公平和质量: 人工智能时代的教育使命 [*Consultation, contribution and shared fairness and quality: the education mission in the era of artificial intelligence*]. Guangming Daily, 05, hereinafter GD 257.

¹⁰¹³ Jin, X. (2019, May 19). 人工智能与中国教育在融合中普及 (案例) [*Artificial intelligence and China's education are popularized while integrating (cases)*]. Guangming Daily, 05, hereinafter GD 258.

¹⁰¹⁴ Guangming Daily (2019, May 21). 中国农业大学: 培养拔尖创新农业人才 [*China Agricultural University: Cultivate top-notch innovative agricultural talents*]. Guangming Daily, 14, hereinafter GD 259.

260. 北京大学：跨界融合追求卓越本科 [Peking University: promote outstanding bachelor education by cross-border integration].¹⁰¹⁵
261. 教育游戏到底有没有价值 [Is there any value in educational games]?¹⁰¹⁶
262. 江南大学：打造有力量有温度的思政课 [Jiangnan University: create powerful and harmonious ideological and political education].¹⁰¹⁷
263. 点燃”课堂热情的神奇旅行包 [Magical travel bag that ignites the passion in the classroom].¹⁰¹⁸
264. 本科教育的未来 [The future of bachelor education].¹⁰¹⁹
265. 创新创业，学校应该如何教 [How to do Innovation and Entrepreneurship training in universities].¹⁰²⁰
266. “航小萱”：一个官微如何吸引师生校友 [How the official WeChat account of Beihang University attracts teachers, students and alumni].¹⁰²¹
267. Li, F., Chen, J., & Zhang, W. (2019, July 22). 构建开放包容的全球科学文明发展秩序 [Construct an open and inclusive development order of global scientific civilization].¹⁰²²
268. Li, X., Zhang, S., Wang, S., Jiang, X., & Zhou, M. (2019, July 24). 新文科怎么建？学科跨出去，文理融起来 [How to promote liberal arts? Break discipline boundaries, integrate liberal arts with sciences].¹⁰²³

¹⁰¹⁵ Guangming Daily (2019, May 21). 北京大学：跨界融合追求卓越本科 [Peking University: promote outstanding bachelor education by cross-border integration]. Guangming Daily, 14, hereinafter GD 260.

¹⁰¹⁶ Shang, J. (2019, May 28). 教育游戏到底有没有价值 [Is there any value in educational games]? Guangming Daily, 13, hereinafter GD 261.

¹⁰¹⁷ Su, Y., & Shu, Y. (2019, May 30). 江南大学：打造有力量有温度的思政课 [Jiangnan University: create powerful and harmonious ideological and political education]. Guangming Daily, 08, hereinafter GD 262.

¹⁰¹⁸ Liu, Y., & Han, Y. (2019, June 10). 点燃”课堂热情的神奇旅行包 [Magical travel bag that ignites the passion in the classroom]. Guangming Daily, 08, hereinafter GD 263.

¹⁰¹⁹ Wu, C. (2019, June 18). 本科教育的未来 [The future of bachelor education]. Guangming Daily, 13, hereinafter GD 264.

¹⁰²⁰ Wang, S., Zhang, S., Zhang, M., Jiang, X., Kang, W., & Jiao, D. (2019, June 24). 创新创业，学校应该如何教 [How to do Innovation and Entrepreneurship training in universities]. Guangming Daily, 05, hereinafter GD 265.

¹⁰²¹ Liu, B., & Shi, Y. (2019, July 14). “航小萱”：一个官微如何吸引师生校友 [How the official WeChat account of Beihang University attracts teachers, students and alumni]. Guangming Daily, 04, hereinafter GD 266.

¹⁰²² Li, F., Chen, J., & Zhang, W. (2019, July 22). 构建开放包容的全球科学文明发展秩序 [Construct an open and inclusive development order of global scientific civilization]. Guangming Daily, 16, hereinafter GD 267.

¹⁰²³ Li, X., Zhang, S., Wang, S., Jiang, X., & Zhou, M. (2019, July 24). 新文科怎么建？学科跨出去，文理融起来 [How to promote liberal arts? Break discipline boundaries, integrate liberal arts with sciences]. Guangming Daily, 08, hereinafter GD 268.

269. 数字教科书冲击传统课堂不容忽视 [The impact of digital textbooks on traditional classrooms cannot be ignored].¹⁰²⁴
270. 铸强国之魂 育时代新人 [Forge the soul of a powerful country, education talents for the new era].¹⁰²⁵
271. 中国学生的数学，到底强不强 [Are the Chinese students really good at mathematics]?¹⁰²⁶
272. 第 26 届北京国际图书博览会落幕——书卷为桥连世界 科技助力新阅读 [The 26th Beijing International Book Fair concluded – Book bridges the world, science and technology contributes to new reading].¹⁰²⁷
273. 医学教育中的课程思政与思政课程 [Curriculum thinking and ideological and political theory course in medical education].¹⁰²⁸
274. 为人民办教育 [Education for the people].¹⁰²⁹
275. 安徽职业技术学院：将文明风尚刻进学校基因 [Anhui Vocational and Technical College: engrave civilized practices to college genes].¹⁰³⁰
276. 新时代大学生价值观的青春变奏与五彩镜像 [The youth variation and colourful mirror image of colleges students' values in the new era].¹⁰³¹
277. 河南、江西：突出靶向推进主题教育 [Henan & Jiangxi Provinces' campaign on the theme of “staying true to our founding mission”].¹⁰³²

¹⁰²⁴ Chen, W. (2019, August 6). 数字教科书冲击传统课堂不容忽视 [The impact of digital textbooks on traditional classrooms cannot be ignored]. *Guangming Daily*, 13, hereinafter GD 269.

¹⁰²⁵ Fu, H. (2019, August 22). 铸强国之魂 育时代新人 [Forge the soul of a powerful country, education talents for the new era]. *Guangming Daily*, 07, hereinafter GD 270.

¹⁰²⁶ Chen, P., & Jiang, J. (2019, August 25). 中国学生的数学，到底强不强 [Are the Chinese students really good at mathematics]? *Guangming Daily*, 04, hereinafter GD 271.

¹⁰²⁷ Du, Y. (2019, August 26). 第 26 届北京国际图书博览会落幕——书卷为桥连世界 科技助力新阅读 [The 26th Beijing International Book Fair concluded – Book bridges the world, science and technology contributes to new reading]. *Guangming Daily*, 09, hereinafter GD 272.

¹⁰²⁸ Dang, Z. (2019, August 27). 医学教育中的课程思政与思政课程 [Curriculum thinking and ideological and political theory course in medical education]. *Guangming Daily*, 13, hereinafter GD 273.

¹⁰²⁹ National Institute of Education Sciences (2019, September 13). 为人民办教育 [Education for the people]. *Guangming Daily*, 08, hereinafter GD 274.

¹⁰³⁰ Huang, X., & Wang, L. (2019, September 19). 安徽职业技术学院：将文明风尚刻进学校基因 [Anhui Vocational and Technical College: engrave civilized practices to college genes]. *Guangming Daily*, 10, hereinafter GD 275.

¹⁰³¹ Li, Z., Li, W., Chen, X., Wang, L., Chen, Q., Yang, L., & Yao, Y. (2019, September 20). 新时代大学生价值观的青春变奏与五彩镜像 [The youth variation and colourful mirror image of colleges students' values in the new era]. *Guangming Daily*, 06, hereinafter GD 276.

¹⁰³² Wang, S., Cui, Z., Hu, X., & Gao, X. (2019, October 9). 河南、江西：突出靶向推进主题教育 [Henan & Jiangxi Provinces' campaign on the theme of “staying true to our founding mission”]. *Guangming Daily*, 03, hereinafter GD 277.

278. 线上线下混合式教学可以尽快改变传统的单一讲授式教学，实现多样化和个性化教育。混合式“金课”为创新性教学提供了机遇和平台——金课的含金量体现在哪儿 [Blended education can change the single teaching style asap, and realize diversified and personalized education. Blended MOOCs provide an opportunity and platform for innovative teaching].¹⁰³³
279. 为世界贡献 MPA 教育的中国经验 [Contribute the Chinese experience to the globe MPA education].¹⁰³⁴
280. 浙江财经大学:以生为本 系统改革 创新财经人才培养模式 [Zhejiang University of Finance & Economics: student-oriented system reform and innovative financial talent training model].¹⁰³⁵
281. 重塑创新创业教育理念 [Reshape the concept of innovation and entrepreneurship education].¹⁰³⁶
282. 筑牢新时代强军事业的坚实基础——全军部队在习近平强军思想指引下加强基层建设综述 [To build a solid foundation for strengthening the military in the new era – summary of strengthening military construction at the primary level under the guidance of Xi Jinping Thoughts on building a strong military].¹⁰³⁷
283. 同济天下”砺初心——同济大学以主题教育成果助推”三全育人”综合改革试点工作 [Tongji University promotes the trial of “Three-Aspect Education” with campaign on the theme of “staying true to our founding mission”].¹⁰³⁸

¹⁰³³ Wang, J. (2019, October 22). 线上线下混合式教学可以尽快改变传统的单一讲授式教学，实现多样化和个性化教育。混合式“金课”为创新性教学提供了机遇和平台——金课的含金量体现在哪儿 [Blended education can change the single teaching style asap, and realize diversified and personalized education. Blended MOOCs provide an opportunity and platform for innovative teaching]. Guangming Daily, 13, hereinafter GD 278.

¹⁰³⁴ Xue, L. (2019, October 22). 为世界贡献 MPA 教育的中国经验 [Contribute the Chinese experience to the globe MPA education]. Guangming Daily, 15, hereinafter GD 279.

¹⁰³⁵ Guangming Daily (2019, October 29). 浙江财经大学:以生为本 系统改革 创新财经人才培养模式 [Zhejiang University of Finance & Economics: student-oriented system reform and innovative financial talent training model]. Guangming Daily, 10, hereinafter GD 280.

¹⁰³⁶ Lin, C. (2019, October 29). 重塑创新创业教育理念 [Reshape the concept of innovation and entrepreneurship education]. Guangming Daily, 14, hereinafter GD 281.

¹⁰³⁷ Mei, S., Ou, C., Yan, S., & Yin, H. (2019, November 10). 筑牢新时代强军事业的坚实基础——全军部队在习近平强军思想指引下加强基层建设综述 [To build a solid foundation for strengthening the military in the new era – summary of strengthening military construction at the primary level under the guidance of Xi Jinping Thoughts on building a strong military]. Guangming Daily, 01, 04, hereinafter GD 282.

¹⁰³⁸ Cao, J., Yan, W., Huang, A., & Wang, X. (2019, November 26). 同济天下”砺初心——同济大学以主题教育成果助推”三全育人”综合改革试点工作 [Tongji University promotes the trial of “Three-Aspect Education” with campaign on the theme of “staying true to our founding mission”]. Guangming Daily, 05, hereinafter GD 283.

284. 攻关学术难题 勇攀科学高峰——东南大学师生热议“不忘初心、牢记使命”主题教育 [Tackle academic difficulties, scale new height of science – Review of the campaign on the theme of “*staying true to our founding mission*” at the Southeast University].¹⁰³⁹
285. 《资治通鉴》的读法——访《资治通鉴启示录》 [How to read *Zizhi Tongjian* – an interview with Zhang Guogang, the author of *Revelation of Zizhi Tongjian*].¹⁰⁴⁰
286. 传承西部红烛精神 肩负教育报国使命 [Inherit the western spirit of red candle, shoulder the mission of national education].¹⁰⁴¹
287. 大学治理：从经验走向科学 [University governance: from experience to science].¹⁰⁴²
288. 拥抱 5G 新技术 助力高等教育新发展 [Embrace 5G technology to develop higher education].¹⁰⁴³
289. 徐州幼儿师范高等专科学校：为实现“幼有所育”培养优秀幼师 [Xuzhou Kindergarten Teachers College: cultivate outstanding kindergarten teachers to achieve accessibility of education to kids].¹⁰⁴⁴
290. Party Committee Theory Learning Center Group of Nankai University (2019, December 13). 初心使命始终不渝 改革发展再谱新篇 [Stay true to our founding mission, write new chapters of reform and development].¹⁰⁴⁵

¹⁰³⁹ Su, Y. (2019, November 28). 攻关学术难题 勇攀科学高峰——东南大学师生热议“不忘初心、牢记使命”主题教育 [Tackle academic difficulties, scale new height of science – Review of the campaign on the theme of “*staying true to our founding mission*” at the Southeast University]. *Guangming Daily*, 05, hereinafter GD 284.

¹⁰⁴⁰ Du, Y. (2019, November 30). 《资治通鉴》的读法——访《资治通鉴启示录》 [How to read *Zizhi Tongjian* – an interview with Zhang Guogang, the author of *Revelation of Zizhi Tongjian*]. *Guangming Daily*, 12, hereinafter GD 285.

¹⁰⁴¹ You, X. (2019, December 3). 传承西部红烛精神 肩负教育报国使命 [Inherit the western spirit of red candle, shoulder the mission of national education]. *Guangming Daily*, 15, hereinafter GD 286.

¹⁰⁴² Wu, D. (2019, December 3). 大学治理：从经验走向科学 [University governance: from experience to science]. *Guangming Daily*, 13, hereinafter GD 287.

¹⁰⁴³ Du, Y. (2019, December 3). 拥抱 5G 新技术 助力高等教育新发展 [Embrace 5G technology to develop higher education]. *Guangming Daily*, 15, hereinafter GD 288.

¹⁰⁴⁴ Zheng, J., & Pang, Z. (2019, December 9). 徐州幼儿师范高等专科学校：为实现“幼有所育”培养优秀幼师 [Xuzhou Kindergarten Teachers College: cultivate outstanding kindergarten teachers to achieve accessibility of education to kids]. *Guangming Daily*, 08, hereinafter GD 289.

¹⁰⁴⁵ Party Committee Theory Learning Center Group of Nankai University (2019, December 13). 初心使命始终不渝 改革发展再谱新篇 [Stay true to our founding mission, write new chapters of reform and development]. *Guangming Daily*, 05, hereinafter GD 290.

291. 在主题教育中讲好“三堂课” [Do a good job with the “three lessons” in the campaign on the theme of “*staying true to our founding mission*”].¹⁰⁴⁶
292. 坚持守正创新 构筑育人大格局 [Insist on being upright and innovation to build education pattern].¹⁰⁴⁷
293. 向科学要含金量，建设思政“金课” [Build ideological and political MOOCs with science].¹⁰⁴⁸

2020: 29 Articles

294. 首都经济贸易大学：让师生成为评判主题教育成效的“阅卷人” [Capital University of Economics and Business: Make teachers and students the “examiner” of the campaign on the theme of “*staying true to our founding mission*”].¹⁰⁴⁹
295. 2.4 万余门在线课程向全国高校免费开放 [More than 24,000 online courses are freely open to universities across the country].¹⁰⁵⁰
296. 抗击疫情时期，多地即将开启“线上校园”。有学生担心“学不进去”，有老师担心“教育质量打折”，还有老师不知“音体美课程如何‘搬’到线上”——“停课不停学”，在家怎样上好学 [During the fight against the Corona epidemic, online campuses are coming in various places –Learning continues during class suspension].¹⁰⁵¹
297. 在家上“慕课” [Take MOOCs at home].¹⁰⁵²

¹⁰⁴⁶ Zhang, D., & Xiao, S. (2019, December 16). 在主题教育中讲好“三堂课” [Do a good job with the “three lessons” in the campaign on the theme of “*staying true to our founding mission*”]. Guangming Daily, 05, hereinafter GD 291.

¹⁰⁴⁷ Yi, H. (2019, December 17). 坚持守正创新 构筑育人大格局 [Insist on being upright and innovation to build education pattern]. Guangming Daily, 05, hereinafter GD 292.

¹⁰⁴⁸ Tan, T. (2019, December 25). 向科学要含金量，建设思政“金课” [Build ideological and political MOOCs with science]. Guangming Daily, 02, hereinafter GD 293.

¹⁰⁴⁹ Leading Group of campaign on the theme of “*staying true to our founding mission*” of the Capital University of Economics and Business (2020, January 6). 首都经济贸易大学：让师生成为评判主题教育成效的“阅卷人” [Capital University of Economics and Business: Make teachers and students the “examiner” of the campaign on the theme of “*staying true to our founding mission*”]. Guangming Daily, 05, hereinafter GD 294.

¹⁰⁵⁰ Tang, E. (2020, February 6). 2.4 万余门在线课程向全国高校免费开放 [More than 24,000 online courses are freely open to universities across the country]. Guangming Daily, 09, hereinafter GD 295.

¹⁰⁵¹ Deng, H. (2020, February 6). 抗击疫情时期，多地即将开启“线上校园”。有学生担心“学不进去”，有老师担心“教育质量打折”，还有老师不知“音体美课程如何‘搬’到线上”——“停课不停学”，在家怎样上好学 [During the fight against the Corona epidemic, online campuses are coming in various places –Learning continues during class suspension]. Guangming Daily, 09, hereinafter GD 296.

¹⁰⁵² Zhang, G., & Tang, Z. (2020, February 7). 在家上“慕课” [Take MOOCs at home]. Guangming Daily, 08, hereinafter GD 297.

298. 各地学校何时开学，就业问题怎么解决，高考是否会推迟——教育部明确要求各地延迟开学 [When will the new semester start, how to solve employment issues, and whether Gaokao will be postponed – The MOE requires all localities to postpone the new semester].¹⁰⁵³
299. “互联网+教育”在“停课不停学”中能否实现价值增值 [Will “Internet + Education” achieve value added in the continue learning during class suspension].¹⁰⁵⁴
300. 抗疫也要戴好“心理口罩” [We need a “psychological mask” to combat COVID-19].¹⁰⁵⁵
301. 清华：3098门课程是怎么上线的 [Tsinghua University: How did the 3,098 courses go live].¹⁰⁵⁶
302. 在疫情防控中加强大学生思政教育 [Strengthen the ideological and political education of college students in the fight against Corona epidemic].¹⁰⁵⁷
303. 自主学习能力越强学习效果越好 [Stronger self-learning ability leads to better learning effect].¹⁰⁵⁸
304. 抗疫特殊时期网络视频教育大有可为 [It is the time for online education while combating COVID-19].¹⁰⁵⁹
305. 复工后，文化艺术行业如何增强抗风险能力 [How can the industry of culture and arts enhance the ability to resist risks when getting back to business].¹⁰⁶⁰

¹⁰⁵³ Yuan, Y. (2020, February 13). 各地学校何时开学，就业问题怎么解决，高考是否会推迟——教育部明确要求各地延迟开学 [When will the new semester start, how to solve employment issues, and whether Gaokao will be postponed – The MOE requires all localities to postpone the new semester]. *Guangming Daily*, 09, hereinafter GD 298.

¹⁰⁵⁴ Zhu, X. (2020, February 18). “互联网+教育”在“停课不停学”中能否实现价值增值 [Will “Internet + Education” achieve value added in the continue learning during class suspension]. *Guangming Daily*, 14, hereinafter GD 299.

¹⁰⁵⁵ Jin, X., & Chai, R. (2020, February 20). 抗疫也要戴好“心理口罩” [We need a “psychological mask” to combat COVID-19]. *Guangming Daily*, 09, hereinafter GD 300.

¹⁰⁵⁶ Li, J., & Zhu, H. (2020, February 25). 清华：3098门课程是怎么上线的 [Tsinghua University: How did the 3,098 courses go live]. *Guangming Daily*, 14, hereinafter GD 301.

¹⁰⁵⁷ Zhang, L. (2020, February 25). 在疫情防控中加强大学生思政教育 [Strengthen the ideological and political education of college students in the fight against Corona epidemic]. *Guangming Daily*, 13, hereinafter GD 302.

¹⁰⁵⁸ Li, M., & Zhang, X. (2020, February 25). 自主学习能力越强学习效果越好 [Stronger self-learning ability leads to better learning effect]. *Guangming Daily*, 14, hereinafter GD 303.

¹⁰⁵⁹ Zhang, Z. (2020, February 26). 抗疫特殊时期网络视频教育大有可为 [It is the time for online education while combating COVID-19]. *Guangming Daily*, 15, hereinafter GD 304.

¹⁰⁶⁰ Liu, Y. (2020, February 26). 复工后，文化艺术行业如何增强抗风险能力 [How can the industry of culture and arts enhance the ability to resist risks when getting back to business]. *Guangming Daily*, 13, hereinafter GD 305.

306. 在线教育从“新”到“好”还需补哪些课 [What shall we do to make online education better]?¹⁰⁶¹
307. 抓住产业新增长点 充分释放经济发展潜力 [Grasp the new growth point of industries to fully release the economic potential].¹⁰⁶²
308. 打好战“疫”复学组合拳 [Being prepared for the fight against Corona epidemic while returning to business].¹⁰⁶³
309. 如何在“有的学”之后“学得好” [How to study effectively when there is an opportunity to learn]?¹⁰⁶⁴
310. 线上展览 您满意吗 [Are you satisfied with online exhibitions]?¹⁰⁶⁵
311. 与地球情未了，与讲坛爱永续——追记中国工程院院士、武汉大学教授宁津生 [His love with the earth and education lasts forever - Postscript to Ning Jinsheng, Academician of Chinese Academy of Engineering and Professor of Wuhan University].¹⁰⁶⁶
312. 线上教学：“摄像头+话筒”后的三种改变 [Online education: three changes behind the camera].¹⁰⁶⁷
313. 高校行动 [University actions].¹⁰⁶⁸
314. 为战疫和复产提供科技智力支撑 [Support the fight against COVID-19 and the return to business with technology intelligence].¹⁰⁶⁹

¹⁰⁶¹ Yao, X. (2020, February 27). 在线教育从“新”到“好”还需补哪些课 [What shall we do to make online education better]? Guangming Daily, 09, hereinafter GD 306.

¹⁰⁶² Wei, J. (2020, March 3). 抓住产业新增长点 充分释放经济发展潜力 [Grasp the new growth point of industries to fully release the economic potential]. Guangming Daily, 06, hereinafter GD 307.

¹⁰⁶³ Quan, J. (2020, March 4). 打好战“疫”复学组合拳 [Being prepared for the fight against Corona epidemic while returning to business]. Guangming Daily, 02, hereinafter GD 308.

¹⁰⁶⁴ Shang, J., & Qu, Q. (2020, March 10). 如何在“有的学”之后“学得好” [How to study effectively when there is an opportunity to learn]? Guangming Daily, 16, hereinafter GD 309.

¹⁰⁶⁵ Han, Y. (2020, March 15). 线上展览 您满意吗 [Are you satisfied with online exhibitions]? Guangming Daily, 12, hereinafter GD 310.

¹⁰⁶⁶ Xia, J., Zhang, R., & Wu, J. (2020 March 17). 与地球情未了，与讲坛爱永续——追记中国工程院院士、武汉大学教授宁津生 [His love with the earth and education lasts forever - Postscript to Ning Jinsheng, Academician of Chinese Academy of Engineering and Professor of Wuhan University]. Guangming Daily, 10, hereinafter GD 311.

¹⁰⁶⁷ Su, X., & Du, J. (2020, March 19). 线上教学：“摄像头+话筒”后的三种改变 [Online education: three changes behind the camera]. Guangming Daily, 14, hereinafter GD 312.

¹⁰⁶⁸ Wang, M., Chen, P., Zhang, Y., Wang, S., & Jiang, X. (2020, March 24). 高校行动 [University actions]. Guangming Daily, 07, hereinafter GD 313.

¹⁰⁶⁹ Li, Q. (2020, March 25). 为战疫和复产提供科技智力支撑 [Support the fight against COVID-19 and the return to business with technology intelligence]. Guangming Daily, 07, hereinafter GD 314.

315. 危机中的青春洗礼——疫情期间高校学生学习生活及思想认知调研 [An investigation of college students' study and ideological cognition].¹⁰⁷⁰
316. 多措并举做好大学生心理干预和疏导工作 [Multiple measures for psychological intervention and counselling].¹⁰⁷¹
317. 上海外国语大学外语教材研究院"2020 年外语教材研究项目"申报指南 [Application guide for the "2020 Research Project of Foreign Language Textbook" of the SISU institute of textbook].¹⁰⁷²
318. 河南理工大学: 化"危"为"机" 育时代新人 [Henan Polytechnic University: Turn the Adversity into Opportunity for education].¹⁰⁷³
319. 在线教学, 催生未来大学新形态 [Online teaching triggers the new form of future university].¹⁰⁷⁴
320. 聚合湘雅力量 奉献全球抗疫 [Gather the power of Xiangya School of Medicine, Central South University to contribute to the globe fight against Corona epidemic].¹⁰⁷⁵
321. 在疫情防控中拓展思政课教学新空间 [Expand new space for ideological and political education in the epidemic prevention and control].¹⁰⁷⁶
322. 疫情呼唤高学历护理人才深入临床 [The epidemic calls for well-educated nursing talents for the clinical practice].¹⁰⁷⁷

¹⁰⁷⁰ Research group led by Prof. Lian Si (2020, March 27). 危机中的青春洗礼——疫情期间高校学生学习生活及思想认知调研 [An investigation of college students' study and ideological cognition]. Guangming Daily, 07, hereinafter GD 315.

¹⁰⁷¹ Ren, Y. (2020, March 27). 多措并举做好大学生心理干预和疏导工作 [Multiple measures for psychological intervention and counselling]. Guangming Daily, 06, hereinafter GD 316.

¹⁰⁷² SISU (2020, April 10). 上海外国语大学外语教材研究院"2020 年外语教材研究项目"申报指南 [Application guide for the "2020 Research Project of Foreign Language Textbook" of the SISU institute of textbook]. Guangming Daily, 10, hereinafter GD 317.

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¹⁰⁷⁵ Tian, H. (2020, April 17). 聚合湘雅力量 奉献全球抗疫 [Gather the power of Xiangya School of Medicine, Central South University to contribute to the globe fight against Corona epidemic]. Guangming Daily, 07, hereinafter GD 320.

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