

THE APPLICATION OF SOCIAL MEDIA IN LIBRARY AND INFORMATION SCIENCE EDUCATION OF CHINA: A CASE STUDY

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Received: 11.03.2020

Revised: 12.04.2020

Accepted: 12.05.2020

Abstract

The new era of big data speeds up the development of information technology, social media has become an integral part of people's daily life and changed the way of communication between individuals. Currently, social media has been applied to education in many disciplines, there is also no exception to Library and Information Science (LIS) education. China's LIS education is undergoing profound changes, which is more necessary to improve the quality of LIS education with the help of high-tech products. Firstly, this study gave a brief introduction to social media and past literature regarding social media applications in LIS education worldwide. Secondly, a survey on the relationship between social media and LIS education was carried out to analyze the views from two consecutive MLIS graduates from Information Management School at Heilongjiang University (HLJU). Thirdly, an actual teaching case using QQ series software was exposed keeping in view the feature of social media's application in LIS courses. Finally, some suggestions were given based on the results of the above thorough analysis.

Keywords: Library and Information Science Education, Social Media, QQ, China, Case Study.

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 DOI: <http://dx.doi.org/10.31838/jcr.07.12.105>

INTRODUCTION

With the advent of the digital era, the use of social media is becoming more and more popular. Social media can be viewed as a Web 2.0-based, readable and writable website or program application that users can create, share, and communicate. Usually social media can also be exchanged with Web 2.0. [1]. Internationally, social media software such as Facebook, Twitter, and Wechat are widely used by the public, which has a profound impact on the way people communicate with each other in modern society. Users can participate in activities, share information, discuss opinions, and create various types of learning organizations for different needs. Through social media, students' interest will be greatly improved and learning

motivation will also be obviously strengthened. As the master of the future society, it is obvious that contemporary higher education students are more and more inclined to web-based learning tools, as well as free access to network resources. The integration of social media into traditional classroom teaching is not only a positive response to the learning characteristics and needs of contemporary higher education students but also an objective change for universities to adapt to the current social learning situation [2].

According to Ogilvy & Mather's classification criteria for social media, the categories can be divided into the following sixteen items as shown in Figure 1:



Figure 1. Ogilvy & Mather's classification of social media

The 16 types of social media are elaborated as follows: Social Networking Services, Professional Social Networking Services, Online Trade, Deal-of-the-day, Check-in, Review, Question & Answering, Wikis, Online Music, Photo Sharing, Video Sharing, Instant Messaging, Mobile Chat, Micro-blogging, Blogging, Message Boards [3].

In 2007, Professional Social Networking Services has officially become a new research theme in Library and Information Science, along with its application expanded from the original BBS to the current micro-information age [4]. However, the research outputs regarding the application of general social media technology in the Library and Information Science

Education still remain silent. Recently, social media has been widely applied in various fields of education, such as Computer Science, Foreign Languages, and many other disciplines. As an emerging interdisciplinary subject, the social media should have the corresponding value according to the feature of Library and Information Science. From this perspective, the application of social media in Library and Information Science Education will have a very promising prospect. There is also no exception for LIS Education in China. With the implementation of strategic reforms of China's Library and Information Science Education, new technology such as social media will be gradually integrated into the actual teaching process.

APPLICATION OF SOCIAL MEDIA IN LIS EDUCATION

Till now, there are hardly any available literature with regards to the combination of social media and LIS education globally, limited research outputs have been exposed in the application of social media into Library and Information Science education. At present, the application of social media in LIS education has a lot of potential and room to improve worldwide, which can be tentatively used in theoretical courses, practical courses, and dissertation stages of both regular and distance mode of LIS education.

In 2008, Estonian scholar Virkus gave a brief introduction of Web 2.0 (social media) and its application in the educational context. Further, the role of Web 2.0 in the Information Studies Institute of Tallinn University along with future trends of Web 2.0 in LIS education was analyzed and exposed [5].

Indian scholar Bhardwaj investigated how LIS working professionals of India's higher education institutions apply social networking sites (SNS) into their routine work. The results showed that the majority of respondents according to the questionnaires were members of the institution's official group on the SNS, whereas only one fifth were members of an unofficial student group. These LIS professionals use SNS to socialize, keep themselves up-to-date, find job vacancies, and acquire information regarding the conferences or seminars in their respective fields. Some of the legitimate concerns of LIS professionals are privacy and cyberbullying. Lastly, the conclusion was drawn that social networking applications must be incorporated into the curricula of MLIS in India [6].

A recent study carried out by research scholars from Uganda mainly examined the contributions and implications of social media in developing LIS curricula in developing countries. And then they analyzed that possibilities of collaboration in the integration of social media and LIS education in developing countries, finally come up with corresponding solutions to meet the needs of application of social media into developing countries' LIS education [7].

In another recent study, Aftab and Ali firstly gave a brief overview of LIS education in selected SAARC countries, then comp up with main objectives which are fourfold: (1) To know the general perception of LIS professionals in select SAARC countries towards collaboration. (2) To understand the nature and extent of collaboration among professionals and how it affects their career. (3) To find out the purpose of LIS communities from SAARC countries applying social media into LIS education in SAARC countries. (4) To explore ways SNS can be used to supplement collaborative learning in SAARC countries focusing on surveying the emerging social media into LIS curricula design, LIS general education and LIS academic research in select countries of SAARC [8].

Compared with studies carried out abroad, so far there are no relevant research articles available with regards to social media's application in LIS education under China's context, even there is no literature about the use of social media in LIS education in Chinese version. From the above limited literature, it can be concluded that the researches mainly focus on social media as a tool in the teaching or practical work of Library and Information Science.

A Survey OF HEILONGJIANG UNIVERSITY Towards Attitude OF Social Media Application in LIS Education

In this study, MLIS Graduates at Heilongjiang University (HLJU) were selected to conduct a questionnaire survey for the feasibility analysis of social media application to LIS Education. HLJU is a comprehensive university located in the north part of China, which was found in 1941. As one of the earliest academic schools which has obtained the authority of conducting MLIS enrollment, Information Management School of HLJU has been running MLIS program for nearly ten years [9]. The questionnaires supported by "Tencent Questionnaire (<https://wj.qq.com/>)" have already been sent to all MLIS students who graduated in the year of 2018 and 2019 from HLJU through QQ group sharing. The survey started on February 1st, 2020 and last for two months. The whole questionnaire were made up of 8 main questions which were shown in <https://wj.qq.com/s2/5018352/e57e/>. Finally, 68 effective questionnaires were collected for the use of data analysis.

Time Span of Using Social Media

According to the questionnaire survey, 33 persons have been using social media between 3 to 5 years, and 27 persons have been using social media for more than 5 years. As shown in Figure 1, more than 88% of students have already been using social media over 3 years in total, 100% of students have kept been using social media for at least more than 1 year.

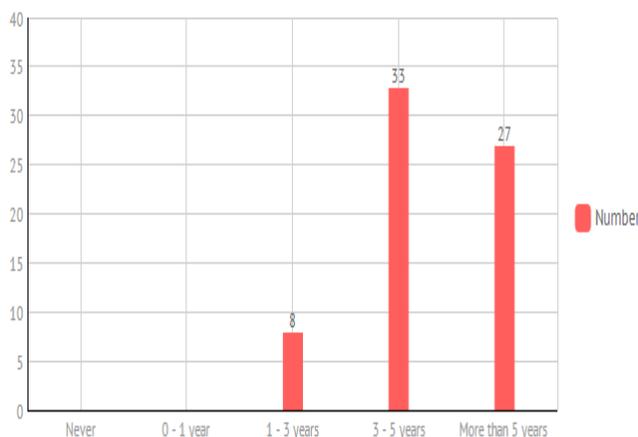


Figure 2. Number of students under different period of using social media

It can be seen from the above data that although social media was a newborn product for a short period in China, however,

its current popularity is very high among higher education students. To put it another way, social media has become a way of life, fully integrated into the spiritual world of contemporary university or college students.

Choice of Preferred Social Media Platform

In terms of choosing the type of social media, the students

surveyed were more inclined to use Wechat as a social media tool, accounting for 45.6%. The second is Weibo, accounting for 26.5%; the third is QQ, accounting for 17.6%; the fourth is 7.4%. The last one YY accounts for 2.9%.

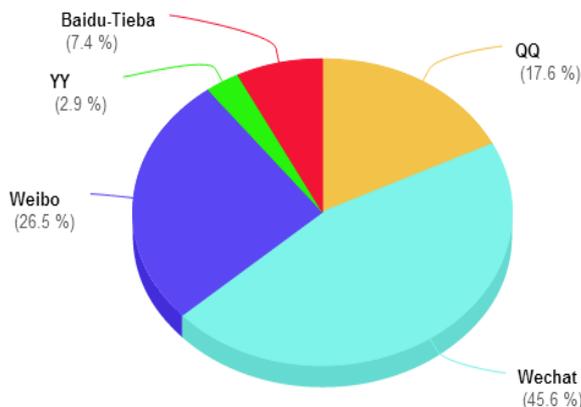


Figure 3. Portion of social media platform chosen by LIS graduates

From the figure shown above, it can be seen that WeChat is the most popular social media platform chosen by two batches of MLIS graduates. Occupying the second and third positions are Weibo and QQ which are far behind WeChat. Although WeChat is a new product with less than 10 years of history till the end of 2019, as a kind of instant messaging tool on the new mobile Internet, which had gathered a large number of users shortly after birth. In the future, WeChat should be one of the most promising social media platforms which can be effectively applied to LIS education.

The Purpose of Using Social Media

In the survey on the purposes of using social media, all the students who participated in the questionnaire survey chose to use social media to chat with family or friends. The number of students who chose to browse the news or video is 53. The number of people who chose "study and research", "view friends' sharing", "posting updates" is lagging far behind the top two items.

Table 1. Frequency of top 5 purposes for using social media

Purposes	Frequency
Chatting with family members or friends	68
Browsing videos or news	53
Checking friends sharing	26
Study and Research	17
Posting personal updates	12

It can be seen from the above results that only a quarter of students use social media platforms to participate in learning or research activities, which seem slightly insufficient. In the future, colleges and universities need to make efforts to guide students to increase the utilization of social media for the purpose of academics.

The Application of Social Media in LIS Syllabus

Generally, most of the studies deal with investigating the student attitude towards social media enhanced learning, and

there are hardly any studies that mainly focus on how to integrate social media into the actual curriculum [10]. As can be seen from the course attributes of the top six courses (frequency above 20), compared with other courses, the practice modules of these six courses account for a large proportion. The consensus of most students involved in the survey is that LIS courses with practice traits are more suitable for integrating social media with teaching and learning activities.

Table 2. Frequency of Top 10 preferred courses using social media in LIS syllabus

No.	Course	Frequency
1	Dissertation	43
2	First Foreign Language	35
3	Information System	30
4	Library and Information Science Specialty Practice	26
5	Information Services and User Investigations	22
6	The Frontier of Library and Information Science	21
7	Scientific Research Methods	14
8	Information Organization and Retrieval	7
9	Bibliometrics	5

10	Information Property	Intellectual	3
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The Reasons of Using Social Media to Participate in Learning

In the survey of the reasons for using social media in LIS education, a necessity was felt to extract the broad names of every item along with deleting some sporadic items created by MLIS graduates. Finally, five main reasons and their

corresponding frequency were summed up. "Personality from student side" ranked first, with a frequency of 65; "Cross-regional" ranked second, with a frequency of 58; "Efficiency" ranked third, with a frequency of 42; "Personality from teacher side" ranked fourth, with a frequency of 29; "Understandability" ranked fifth, with a frequency of 23.

Table 3. Frequency of top 5 reasons for application of social media in LIS education

Reasons	Frequency
Personality (Student)	65
Cross-regional	58
Efficiency	42
Personality (Teacher)	29
Understandability	23

The five items summarized from the questionnaire survey above can well cover the reasons why students use social media to participate in teaching activities. Through the deep understanding of the main reasons, it can better help to develop social media-assisted teaching methods with LIS students as the main body in the process of teaching.

Case of QQ Application in the Teaching of LIS Professional Courses

From the perspective of teaching, as third-party software, QQ software has the characteristics of low cost, strong

interactivity, and ease of use. Especially, the comprehensive support for teaching has an advantage in the various disciplines of teaching activities and has been widely recognized by users in the educational field of China.

The QQ-based interactive mode of LIS professional courses teaching includes all or several of the five interactive modes, including QQ mailbox, QQ group, QQ space (Qzone), and QQ class (Tencent classroom), which provide an interactive platform for real-time or non-real-time communication between teachers and students. The specific form is shown in Figure 4.

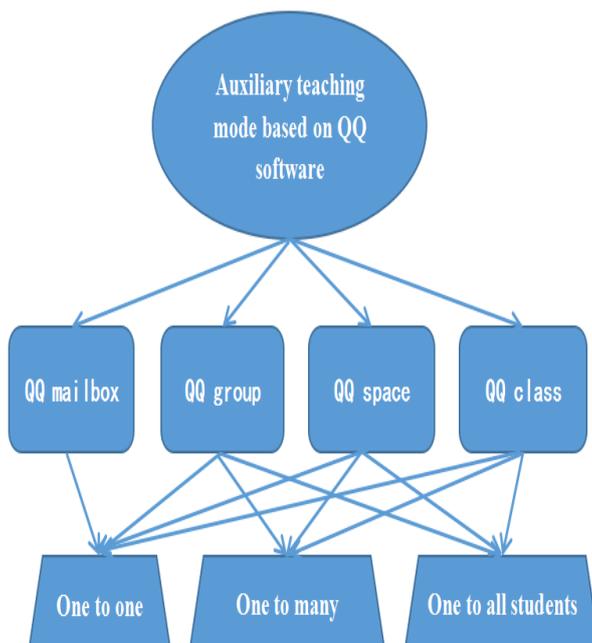


Figure 4. Auxiliary teaching mode based on QQ software

With the same use of QQ software for teaching activities, compared to the previous two products QQ mailbox and QQ group, QQ space or QQ class have obvious advantages in many aspects of functions. The following are teaching cases for "Information System Studies" courses based on QQ space and QQ class platforms.

QQ space (Qzone) is a QQ accessory product developed by Tencent company in 2005, which has the function of blog and personality space [11]. As one advanced product of blog types, teachers can upload learning materials in the log section of QQ

space, establish learning resources, guide students to access resources in the space in case teaching, Further students can also make interactive comments in the relevant learning resources page and communicate with teachers and students. In addition, QQ space can be used as a medium for other social media learning platforms to access other platforms by browsing QQ logs. The example of QQ space's application into course teaching of "Information System Studies" is shown in Figure 5 & 6.

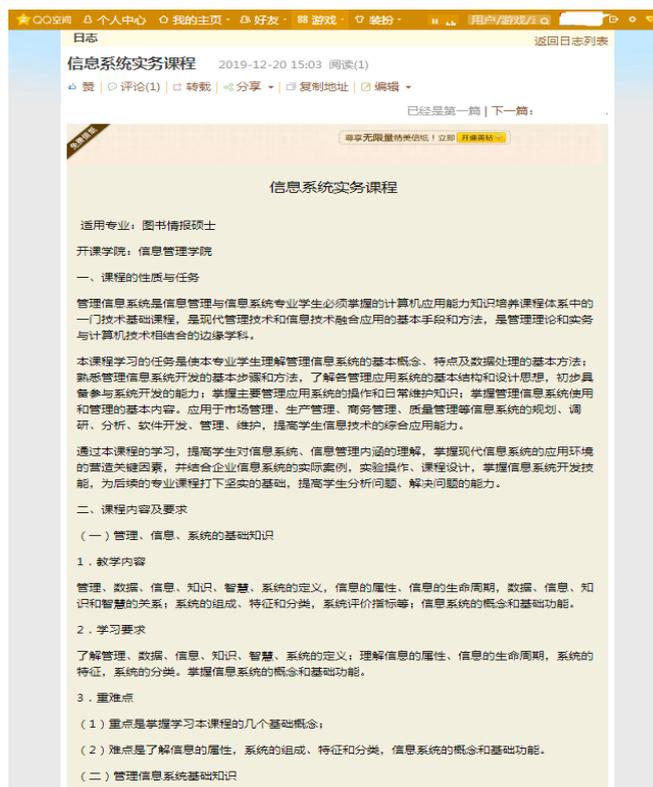


Figure 5. Example of teaching case in Qzone (1)



Figure 6. Example of teaching case in Qzone (2)

QQ Class (Tencent Classroom) is another social media interactive platform of Tencent company, which realizes online real-time interactive teaching by virtue of the advantages of QQ client by utilizing QQ's accumulated audio and video capabilities for many years to provide smooth and high-quality live course effect. At the same time, it supports ppt demonstration, screen sharing, and other diversified teaching modes, and also provides teachers with a whiteboard, questioning, and other capabilities. Tencent has created an online education platform named "Tencent classroom", which

has improved the uneven distribution and development of China's education resources. Relying on the Internet has broken the regional restrictions so that everyone who aspires to learn new knowledge can receive the guidance and teaching of excellent teachers. At the same time, it aims to provide an exhibition platform for excellent institutions and teachers [12]. Teachers can upload video course records through the platform. LIS students in related institutions can use the permission to watch relevant courses, along with asking incomprehensible questions with regards to knowledge points

that appeared in the video courses. They can also discuss and exchange ideas with each other on the platform. Following

Figure 7. is an example of interactive teaching in QQ Class (Tencent Classroom).



Figure 7. Case of Video Course through "QQ Class"

The use of QQ as an auxiliary means of Library and information courses has the following threefold outstanding advantages:

(1) Utilizing the immediacy of QQ technology and surpassing the limitation of space, students can transfer real-time information everywhere through QQ series software, find partners or communicate with teachers, so as to ensure the quality of learning and increase the motivation for learning LIS professional knowledge. At the same time, case teaching course of LIS can be introduced into the online teaching platform. Teachers can publish teaching materials in the QQ group. With the help of teachers and classmates, learners can selectively analyze related knowledge collected by the Internet. This process requires students to think actively, find problems and try best to use resources to solve problems proactively.

(2) Like other types of social media such as microblog, QQ series software has the same multiplier effect as a microblog. For example, "sharing", "copying address", "rebroadcasting to Weibo" and other functions in QQ space can easily realize distributed network communication. Excellent quality teaching materials can be transmitted and reproduced by students infinitely, which makes the effect of teaching activities doubled [13].

(3) Nowadays, teaching activities have been no longer traditional form and classroom has been transformed from their four walls confined environment to a networked environment. The "traditional classroom teaching" mode while efficient, is a relatively outdated teaching system with features of simplicity and closure. More and more young people consciously object to spoon-feeding and learning by rote. Therefore, QQ's entertainment feature is particularly prominent in the effect of teaching for its powerful technical support. By integrating entertainment into the teaching process, students can well understand LIS professional knowledge and maintain long-term learning enthusiasm.

CONCLUSION AND SUGGESTION

This study gave a brief introduction to social media and reviewed limited literature with regards to the application of social media in LIS education worldwide. Furthermore, a survey of MLIS graduates in HLJU was carried out to analyze the current situation of the use of social media among MLIS graduates in HLJU along with social media's application in the MLIS program of HLJU. Finally, an actual teaching case was designed and exposed using QQ products as social media

platform.

Following some suggestions will be given according to the analysis of questionnaires received from MLIS graduates of HLJU keeping in view the teaching actual case.

1. LIS teachers can apply social media to all aspects of teaching, so as to broaden the classroom teaching to the outside of the classroom. For instance, teachers can put relevant teaching materials such as video, audio and text on the social media platform. Students can preview before class or review after class. Teachers can also publish course progress and assignments through the social media platform so that students can control the teaching dynamics anytime and anywhere by themselves. According to above analysis, practical courses and dissertation guidance inside MLIS syllabus accounted for more portions of applying social media to concerned courses from the surveyed students' views. So the pilot project can be carried out to integrate social media into practical courses and dissertation guidance courses.

2. LIS students can take the initiative to use social media to study professional courses, which can break the traditional mode of fixed time and fixed place, so as to improve the learning effect. From the students' side, they are also very positive about the use of social media in learning activities [14]. For instance, students can independently obtain relevant LIS teaching materials on social media platforms, supplemented by exchanges on academic issues between students and students or between students and teachers.

3. LIS teachers can use social media to conduct a phased assessment of students' academic achievements, or they can directly incorporate the assessment results into the final assessment of the curriculum. For example, teachers can use the social media platform to release the test paper composed of open questions and answers, students can submit it either in class or interact with teachers again through social media, and finally, teachers can give phased assessment results according to students' answers.

4. Different professional work of the libraries has their own characteristics, also the professional and discipline background of librarians is more complicated. These have brought certain problems and difficulties to librarian training and continuing education [15]. Social media can also be applied to continuing education for working library professionals. In China, the professional qualification certification system of librarians has not been completed yet,

which will lead to the result of a lack of necessary professional skills for librarians, especially in the public libraries of China. Compared with academic libraries, most library professionals working in public libraries have other discipline backgrounds, therefore how to improve the effect of in-service continuing education for the library professionals' competency skills training is often of critical importance. Social media may be a good choice to be integrated with LIS education.

Limitation and Study Forward

Because of the limitation of objective conditions, this article only adopts the data collected from MLIS graduates of Heilongjiang University, without taking into account the views of teachers from HLJU, also the selected samples confined in HLJU only reflect the situation in concentrated people groups and geographical area, which cannot well represent the overall situation. Up to now, social media has been used for entertainment rather than learning. As a result of that, students could not have a thorough understanding of the relevant issues in the process of the questionnaire survey [16].

There are many types of social media tools, which are still developing rapidly. Although many examples in promoting the spread of popular culture have already shown that social media has high public awareness, its long-term impact on LIS education has not yet appeared. In the future, one of the research directions in related fields is to teach Web 2.0 related technologies and tools as the parts of LIS courses, as well as taking social media as tools to assist teaching and learning activities.

Conflict of Interest

The author declare no conflict of interest.

ACKNOWLEDGMENT

The author wishes to express his gratitude to all those who actively cooperated with the questionnaire survey. Furthermore, special thanks go to the Department of Library and Information Science of North-Eastern Hill University for supporting to conduct this study.

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