Serious Challenge, Historic Opportunity: Information Literacy Education in China

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Abstract
*It has been three decades since 1974 when the concept **Information Literacy** was put forward firstly by Paul Zurbowski. In the past thirty years, the research and practice on information literacy education has gained a great deal of achievements, especially in developed countries. But in China, before 1994, few people knew the concept and nature of information literacy. Fortunately, in the recent ten years, more and more Chinese people increasingly have been paying much more attention to it. On January 7-9, 2002, the national Conference of College and University Information Literacy Education Research was taken place at Heilongjiang University in China, many LIS professionals and China's Education Ministry officials participated the conference. That was the milestone on IL research and practice in china, because it was the first time for Chinese LIS profession to hold a national conference formally named information literacy, also it was the first time that the traditional course term **Literature Retrieval** was replaced by **information literacy**. Nowadays in china, there is no nationally agreed syllabus on information literacy education, but Developing information literacy education was put forward to be one of the college and university library's five core institutional missions formulated by China's Ministry of Education in 2002. It is a historic opportunity for China's LIS profession to raise the prestige of library and to contribute to our society. Although we are behind in the information literacy research and practice compared with the developed countries, we are fully awareness of that we are facing the serious challenges, the author try to express the idea that as a LIS professional we will never shirk our responsibility and will never lose the courage to adjust ourselves, we will challenge challenges in order to converge the international conventions.*

Introduction

The term **Information Literacy** (IL) was put forward firstly by Paul Zurbowski in 1974. In the past thirty years, with the LIS professionals and scholars' continuous efforts, the connotation and nature of information literacy has been enriched and become mature. Although there are a variety of different descriptions on information literacy, such as information literacy (favored in USA and Australia), information skills (preferred in UK), information competency, information fluency, etc., in essence they are the same concept, and in many instances the terms can be used interchangeably.

In 2000 in the United States, the Association of College and Research Libraries (ACRL) has approved "Information Literacy Competency Standards for Higher Education", in this document, Information literacy is defined as a set of abilities requiring individuals to "recognize when information is needed and have the ability to locate, evaluate, and use effectively the needed information." So, an information literate individual is able to:

- Determine the extent of information needed

- Access the needed information effectively and efficiently

- Evaluate information and its sources critically

- Incorporate selected information into one's knowledge base

- Use information effectively to accomplish a specific purpose

- Understand the economic, legal, and social issues surrounding the use of information, and access and use information ethically and legally

On the other hand, in 2002 in the UK, the definition of information literacy is depicted as some correlated set of characteristics by Society of College, National & University Libraries (SCONUL), which include:

- effective information seeking;

- informed choice of information sources;

- information evaluation and selection;

- comfort in using a range of media to best advantage;

- awareness of issues to do with bias and reliability of information; and

- effectiveness in transmitting information to others.

Obviously not only in the USA, UK, but also in Canada, Australia, as well as New Zealand, those well-developed countries in IL, the descriptions of the definition on IL are diverse. Although there is no overall consensus on a single, authoritative definition of 'information literacy' in the world, all of them are just different understandings and stand for the abundant and colorful research achievements on information literacy.

Concurrently, the practices of IL education are outstanding in those countries mentioned above. In the developed countries, IL education activities have been integrated into the national education and development strategy, many national action plans or projects on IL have been initiated and implemented at national level. The United States is a long way ahead

in this field. In early 1990, the National Forum on Information Literacy (NFIL) was founded as a response to the recommendations of the ALA Presidential Committee: Final Report. NFIL is a "coalition of over 75 education, business, and governmental organizations working to promote international and national awareness of the need for information literacy and encouraging activities leading to its acquisition." Forum members promote information literacy nationally, internationally, and within their own programs. In 2000, a set of standards, modules, paradigms on IL, test databases, as well as learning outcomes assessment systems have been established by ACRL. In UK the SCONUL Information Skills Task Force launched the Big Blue Project in early 2001 and issued "Final Report" as a marked document on July 2002. Since the mid 1990s Australia also has well-developed information literacy strategies, both within higher education and wider societal contexts. There are more than 500 portal websites on IL in the world.

Nowadays, with the solid platform established by the developed countries in IL, the IFLA will develop an International Information Literacy Certificate (IILC) as part of the Information Literacy worldwide agenda. Although there are information rich information poor and such called digital divide, although there is a debate on the viability of IILC agenda, finally the IILC will be delivered all over the world in the recent future, because nothing can prevent the intention for a new development. That means challenges challenge the LIS professionals around the world especially in developing and undeveloped countries.

Survey of IL and IL education in China

1. the research of IL

There is an investigation about formally published papers in the recent years on IL research:

- selected database: China Academic Journal Full-text Database (CAJFD), created by China National Knowledge Infrastructure (CNKI), with a collection of 6,600 periodicals in full-text and 9 million full-text articles, 700,000 full-text articles added annually, its update frequency is daily via the Internet and covers all range of subjects and disciplines.
- input: "information literacy"
- retrieval field :"keyword" , "title", "full text" and respectively retrieval results:

year the amount of papers		1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Selected field	keyword	0	0	4	6	21	36	51	115	193	235
	title	0	0	0	4	14	16	28	58	81	119
	Full-text	11	8	26	41	97	179	277	521	823	936

From the investigation, we have a result: in China, before 1994, few people knew the concept "Information Literacy". In the recent ten years, more and more Chinese people increasingly

have been paying much more attention to it.

When Chinese LIS professionals and scholars reference to the definition of IL, one of the most widely quoted is that of the American Library Association Presidential Committee on Information Literacy, which, in its 1989 Final Report stated:

To be information literate, a person must be able to recognize when information is needed and have the ability to locate, evaluate and use effectively the needed information…Ultimately, information literate people are those who have learned how to learn. They know how to learn because they know how knowledge is organized, how to find information, and how to use information in such a way that others can learn from them. They are people prepared for lifelong learning, because they can always find the information needed for any task or decision at hand.

(ALA, 1989)

Nowadays, China's LIS community has reached a generally agreed recognition on the definition and connotation of IL and IL education:

Information literacy is a synthesis of a variety of information characters that an individual should acquire in information society. It consists of information consciousness, information knowledge, information concept, information creation, information technology, information evaluation, information ethics, information seeking and use, etc.

Information literacy education is a process to cultivate and promote personal member's information consciousness and information competency according to the needs in information society surroundings. It includes three main components, illustrated as the follows:

1). Information consciousness education. Information consciousness is the most important one of the components of IL, which includes information body consciousness, information access and communication consciousness, information secrecy consciousness, information ethics consciousness, information change consciousness, etc.

2). Information ethics education. The main contents include:
- corresponding the goals of information communication and dissemination into the society whole goals
- assuming the relative civil responsibilities and obligations in information activities
- nurturing the awareness of complying with the information ethics and information laws as well as regulations
- firmly refusing various smutty, superstition, rumor, fraud and other falsity information
- respecting others intellectual property rights
- respecting personal privacy
- fostering information conscience and respecting the basic human rights
- adhering to justness, equality, truthfulness principles
- justly using and rationally developing the information technology
- rightly dealing with the relations among the information creator, information communicator, information user

3). Information competency education. Information competency means an information literate person can collect, process (filter and sort, analyze and synthesize), utilize and evaluate information through a set of information activities, eventually create new

information and new knowledge. With the popularization of computer and network, new computer and network technology, new communication technology and database technology have changed the styles of people's work and life tremendously. Facing the proliferation of information resources, how to promote people's information competency is a core part of the three components of IL education. Generally, the best practice is IL integration into the LIS curriculum.

2. the practice of IL education

As we all know, IL education dates from user education. In China, formal and informal training and education for users have always been provided in all types of libraries, such as library tours, short-term special trainings, are traditional types of user education in the library. In 1984, the higher education department of China's Ministry of Education (MOE) issued a formal document to encourage the library staff to involve in the teaching-learning process, and provide a course named **Literature Retrieval** for students in the universities. In 1992, the same department formulated a teaching-learning basic request on the course of Literature Retrieval, in this document, the basic request is to cultivate the basic skills for students to master the preliminary methods of computer-based retrieval, including how to select the database, how to make a searching strategy, and how to analyze the search results. In order to advance the teaching-learning activities, the steering group for the Literature Retrieval course was established in 1996 leaded by the higher education department of China's MOE.

Since 1984, the LIS professionals have brought a high tide of teaching activities on literature retrieval in the mid and late 1980s, and now, the Literature Retrieval course has universalized in the universities around the country and become the main and important type of user education in the LIS community. There are two models existed to develop these teaching activities. One is: if there is the faculty of LIS in the university, the teaching tasks are completed by the faculty staff. The other is: the library staff provides the course in the university where without the faculty of LIS. The course is optional or compulsory, with credits or without credits, it depends on the different schools.

Besides the course, a variety of short-term classes, lectures, training increasingly have been becoming another more important types of IL education. Take Hainan University as an example: there are two different types of IL education for students. One type is: two hours class, provide the OPAC(online public access catalogue) training, rules and regulations on library usage and the library's digital, electronic resource search training, after the lecture ,there are the tests to evaluate the learning outcomes at present, the courseware is available at http://210.37.32.22/newindex/szzysyzn.html (reference to illustration 1). The library also provides a 2 credit optional course named "Information Retrieval by Computer & Internet" for the graduate, also has a courseware (reference to illustration 2-4). While in Wuhan University, besides the course "Information Resource Retrieval and Usage", another various short term trainings are available and cater for different stages and levels, such as "90 minutes special lecture", generally for the first year undergraduate, "special training for teachers", "training for the first year graduate".
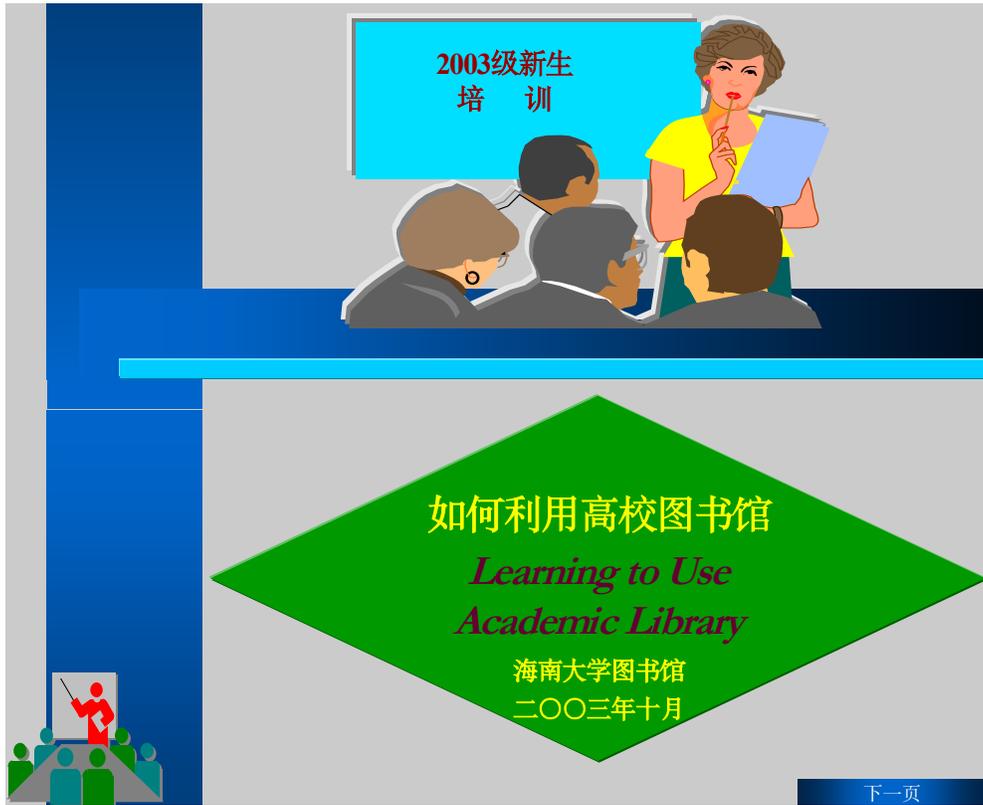
illustration 1

illustration 2
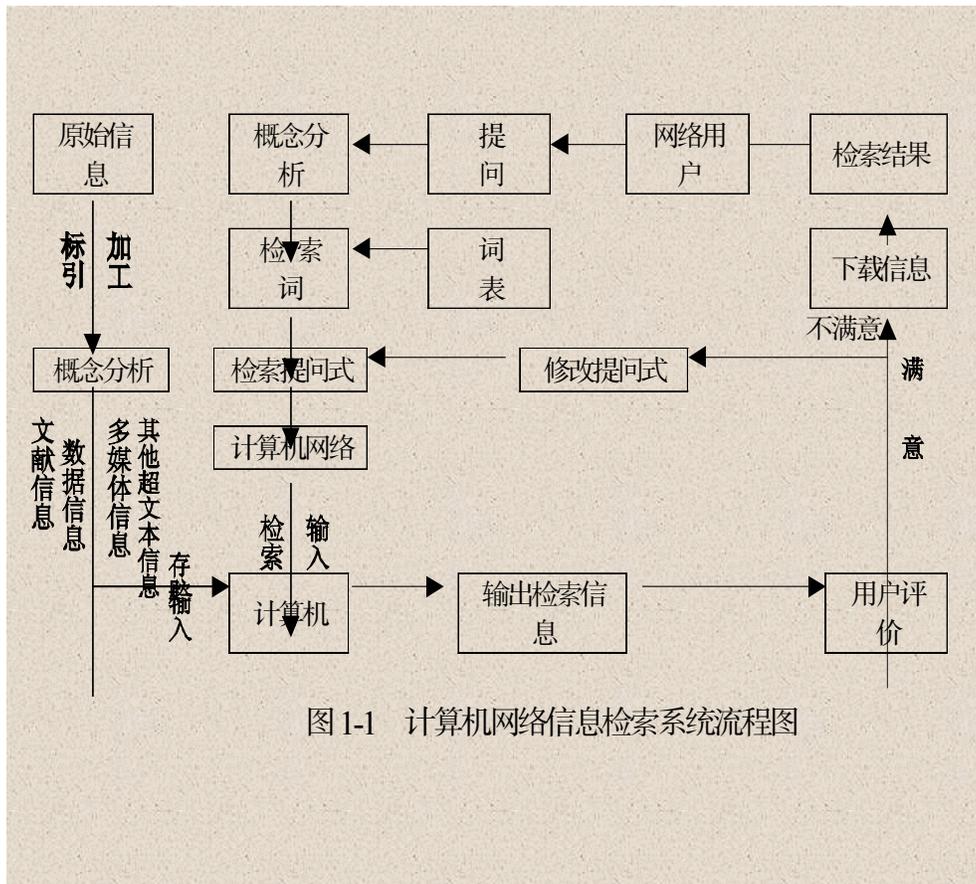
illustration 3

图1-1　计算机网络信息检索系统流程图

illustration 4

In the past 20 years, more than 600 kinds of teaching materials in this field have been compiled and published, the innovation of the literature retrieval course has achieved a great deal of progress.

On January 7-9, 2002, the National Conference of College and University Information Literacy Education Research was taken place at Heilongjiang University in the northeast of

China, many LIS professionals, experts and China's Education Ministry officials participated the conference.

During the conference, Zhu Qiang, Secretary General of China's MOE committee of college and university library work, made a special lecture with the title: "the position and role of college and university library in informationlization education". Profess Hannelore B. Rader, the director of Louisville university library, was invited to have a report: global information literacy indicator: librarians' role in the 21 century. The "Information Literacy Competency Standards for Higher Education" formulated by ACRL was translated into Chinese and its Chinese version was distributed to every participators to learn and research.

Before the conference, the papers were called for around the country, on five topics:(1) IL education and creation education, (2) computer network education, (3) the innovation of literature retrieval course, (4) the construction of teaching material and the teacher team, (5) information user education and service. The amount of the papers on topic (1) and (2) is 13, 20% of the total amount 67, while topic (3) is 30, 46.15% of the total.

During the conference, representatives exchanged the experience of IL education practice, researched and discussed the papers collected. Many demonstrated their courseware on IL education, such as Peking University Library's "one hour lecture", available at http://www.lib.pku.edu.cn/fuwu/fuwu.htm, Zhejiang University Library's online self-learning courseware, available at http://libweb.zju.edu.cn/02/index.htm, on this website, there are two different courseware: one for the undergraduate and another for the graduate, all those especially impressed all the audience by the vivid multimedia technology and the individual, self-help, online pedagogy.

That was the milestone on IL research and practice in china, it was the first time for Chinese LIS profession to hold a national conference formally named information literacy, also it was the first time that the traditional course term **Literature Retrieval** was replaced by **information literacy**. Five proposals, consolidating existing achievements, deepening the research on IL education, formulating the course requests at different levels and different stages, collaborating in compiling the teaching materials, training staffs, calling for the school leaders' emphasis on the IL education, were finalized in this conference. This conference has promoted the overall development and improvement of IL education in China. All the LIS professionals participated expressed the same determination to make arduous efforts to develop China's IL education.

From then on, the intensive application of information technology, network technology and multimedia technology in IL education is being actively promoted and the distance education, online education on IL is energetically developed. A lot of courseware are created and most of them are put online, available at their libraries' websites.

Especially on February 21, 2002, China's MOE issued the new "Library Regulation for Universal Higher Schools (revision)", this is the unique regulation for the college and university library to guide their professional business. In this document, developing the information literacy education was firstly put forward to be one of the college and university library's five core institutional missions. Complying with the regulation, a lot of higher school libraries have established the teaching and research chamber for information literacy education in order to research and implement this institutional function. Certainly, the new library regulation has paved the way for faster, higher development of IL education in China.

Serious Challenges in China

In China, by the end of 2002, there were 1.17 million educational institutions of various forms and at all levels. Among them, 670,000 are regular schools and the rest 500,000 are adult schools. The total enrollment of students has reached 318 million, which ranks the largest in the whole world.

Also, higher education in China has made remarkable progress.

By the end of 2002, there were 2003 Higher Education Institutions (HELs) with a total enrollment of 16,000,000 students. With the net enrollment rate of HEIs of 15%, a mass higher education has been established in China. The total enrollment of regular HELs in 2003 reached 3.82 million, 617,000 more than that of last year, indicating an increase by 19%. The total enrollment of postgraduate students in 2003 has reached about 269,000, 68,900 more than that of last year, representing an increase by 34%. The total enrollment rate of HEIs of various forms has amounted to 19 millions and the gross enrollment of higher education has reached 17%.

The grand education population, the high increasing rate, obviously tough tasks and heavy workloads are challenging China's LIS professionals.

Challenge one: a long way to go in the research of IL and IL education

From the investigation and the national conference mentioned above, we have a conclusion that the present research of IL and IL education in China is emphasized on the basic concept and connotation, few on the theory modeling, standards, outcomes assessment. We have some international experts and world class practice, but there is no nationally agreed syllabus on information literacy education, also no special portal website established for the education and certification of IL, most of schools utilize the same teaching material for all level students, both junior college, undergraduate and graduate, and most of teaching materials can not meet the need because of their old, unchanged contents and their emphasis on retrieving the printed material by hand. The overall research of IL and the practice of IL education are scattered and sectional, few at the national level. Compared with the developed countries in this field, we have a long way to go to deepen and intensify the research and practice.

Challenge two: a long way to go to get the national policy support

At present, China has no independent national law on the library. There is a unique regulation mentioned above for college and university libraries to abide by. Although in this regulation, higher school library is defined as a technicality institution, one of the three core pillars in the school, we often face the reality of ignorance and indifference. Sometimes, the course provided by the library staff was not regarded as indispensable both by students and school leaders and has been made optional subject, not compulsory subject in most situations, even was once cut out in many schools. Generally, teaching is not their full-time task for library staff. Besides teaching, they also have their own daily workload in the library. The real role and position of library often perplex the LIS professionals themselves. It will be very difficult to promote and advance the information literacy education at a national level without the strong policy support.

Challenge three: a long way to go to literate librarians themselves firstly

With the advent of the new era of knowledge economy, the popularization of new IT, librarians are facing the same challenges: the knowledge obsolescence, the technology replacement. Most of them are accustomed to parrot a text unchanged for some ten years and not proficient in the modern technology and method. In the teaching-learning process, they often pay much attention to the theory teaching and neglect the practice teaching, especially some are not familiar with the real retrieving by computer or by internet. What cause that? One reason is that the library has not purchased those online retrieval systems or databases, that they can do is just "fight only on paper". Another important reason is that most of them have few opportunities to get the retraining and continuous education, this leads to their lack of necessary foreign language and new IT knowledge, therefore, to literate librarians themselves firstly should be the priority of priorities.

Challenge four: some other barriers

Lack of cooperation with other faculty in the same school, lack of synergy in the LIS community, lack of information awareness in the whole society, all of those are barriers needed to breakthrough. Information literacy is just a term known in the LIS circle, not recognized by the ordinary people and Chinese senior government. In the recent years, the Chinese government pays much attention to entirely advancing the literacy education by deepening the education reform. But the information literacy has not been nationally regarded as an important literacy in the dissemination of knowledge and to prepare students for the Knowledge Economy. So it is not strange that there is no national plan or action on information literacy education launched by the central government. The IFLA will develop the IILC around the world, as a Chinese LIS professional, we need to overcome many difficulties and breakthrough many barriers, the first one is to let people and the Chinese government know what is information literacy and why it is essential and vital literacy for individual to adapt to Knowledge Economy in information society.

Historic Opportunity in China

In order to promote the overall comprehensive national capacity, the Chinese government is implementing the strategy of "Rejuvenating China through Science and Education" and "Develop China by Talent" and developing an overall well-off society. Therefore, the Chinese government will further promote the sustainable, healthy, cohesive and rapid development of education, build up a perfect national educational system and a lifelong learning system, produce billions of high qualified labors, millions of specialized professionals and a large group of outstanding innovative talents, and promote a close integration between education and innovation in science and technology, economic construction, culture prosperity and social development.

The Chinese government will try the best to establish a learning society for lifelong learning. We all know: information literacy is the essential for the lifelong learning and a kind of lifelong literacy (the IFLA President Kay Raseroka's motto). Like the UK's Big Blue Final Report cited a Chinese proverb: "Give a man a fish and he will eat for a day. Teach a man to fish and he will eat for the rest of his life". The information literacy education is as to teach a man to fish, it is an important vehicle to prepare students for the knowledge economy in information society. It is a historic opportunity for the LIS professionals to have something to do in nowadays China.

On the other hand, the IFLA provide us a broad and solid platform where there are most advanced theories and best practices as well as lessons we should learn. The IFLA has done a

great deal for the world library undertaking. The UNESCO(United Nations Educational, Scientific and Cultural Organization) World Summit on the Information Society(2003-2005), has taken place the Geneva(10-12 December 2003) Conference. Before this session, the IFLA organized a Pre-Summit Conference under the title "Libraries @ the HEART of the Information Society, Prelude to the World Summit", called for the whole society emphasis on the content rather than the technology, stressed the role and position of the library in information society and prepared for the delivery of IILC all over the world.

Although there is a long way to go, although there are serious challenges, we will never shirk our responsibility and will never lose the courage to adjust ourselves, we will challenge challenges in order to converge the international conventions. We should collaborate with the LIS colleagues to widen the recognition of IL at a national scope, redress the passive and silent role and make the arduous efforts to do something visible to the society.

Acknowledgments

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