Chapter 13
Library and Information Science Education and Graduate Programs in Academic Libraries

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ABSTRACT
In academic libraries, there are two main types of education activities: information literacy, serving all university students and staff, and graduate education, focusing on LIS students. Academic libraries bear the responsibility of teaching information literacy to university students and staff, so the libraries develop a variety of training programs to help them with literature retrieval and resource utilization in order to improve their academic abilities. The first library to offer graduate education in library and information science independently was Shanghai Jiaotong University, which received authorization to offer an information science master’s degree in 1996. In 2003, academic libraries began to offer graduate education and library and information science training more widely. After ten years, academic libraries had developed their own graduate education and training experience as distinct from LIS schools. This chapter investigates and analyzes academic library web portals in terms of education patterns, fields of study, entrance examination subjects, and curriculum.

INFORMATION LITERACY TRAINING IN THE LIBRARY
As one typical education activity in the academic library, information literacy training serves all university students and staff.
Under the current escalating complexity of the information environment, information technology is changing rapidly, while information resources proliferate so quickly that individuals are faced with an abundance of useless information in their academic studies, in the workplace, and in their personal lives. Information is available through libraries, community resources, special interest organizations, media, and the Internet. Increasingly, information comes to individuals in unfiltered formats, raising questions about its authenticity, validity, and reliability. Additionally, information is available in a variety of media.
The term “information literacy” was first proposed by Paul G. Zurkowski, Chairman of the U.S. Information Industry Association, who described it as “techniques and skills” learned by the information literate “for utilizing the wide range of information tools as well as primary sources in molding information solutions to their problems” (1974). Though a number of efforts have been made to better define the concept, no solid consensus has been reached. An official definition can be found in the “Standards for Libraries in Higher Education,” published by the Association of College & Research Libraries (ACRL) in 2000. In this standard, 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.” An information literate individual is able to:

1. Determine the extent of the information needed.
2. Access the needed information effectively and efficiently.
3. Evaluate information and its sources critically.
4. Incorporate selected information into one’s knowledge base.
5. Use information effectively to accomplish a specific purpose.
6. Understand the economic, legal, and social issues surrounding the use of information, and access and use information legally and ethically.

As an important part of university teaching and research, the university library acts as an information collection and distribution center and is invariably the primary source of information literacy training for college students. The most common approaches in university libraries in China include freshmen training, lectures, information literacy courses, embedded curriculum, and online learning.

**Freshmen Training**

Freshmen training provides library navigation skills and usage instruction for new students and employees at the beginning of each school year. Through lectures and tours, the freshmen gain awareness of library operations and become familiar with the kinds of information resources found in the library so they can better retrieve and use the information in the future.

**Subject Lecture**

Subject lecture is the dominant approach for information literacy education in almost every library. Lectures are typically held at regular intervals at a predictable time and place, and they cover all aspects of learning and research, ranging from database retrieval techniques to academic writing.

**Courses**

Literature retrieval and utilization courses are included in the undergraduate education curriculum at almost every university. Throughout the courses, students are grouped by major, such as engineering or social science, so that the content can be customized to their needs. The library of Tongji University offered 64 classes from 2010 to 2012, instructing roughly 8,000 undergraduate students (Li, 2014).