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On the reform of Library and Information Science Education according to the changes of librarians' function under network environment

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Abstract:

Based on analysis of the direction of library cause's development and changes of Librarians' social function, the article puts forward some key measures in reform of Library and Information Science Education, such as practice in the education of Internet resource management the guidance of the idea about intellectual property right balance ,the information library education, etc.

Keywords Library and Information Science Education Network Environment

1. Developing direction of library cause under network environment

With the improvement of information resource's position in economic growth, information resource management, especially in international information exchange, has become a new strategic commanding point of competition and cooperation. Internet, regarded as embryo of information highway, has led us into a network age. It changed the time and space pattern of information exchange essentially, and provided us with extremely abundant information resource. As a result, libraries, which traditionally dealt mainly with books and periodicals, have to reform through at information collection and processing and service, to construct a new type of service model attaching more importance to proving knowledge. Libraries should take the guiding principle of "coming public welfare with industrialization", to reconstruct the new model of "multifunction, networking, multi-carrier and intelligent", in order to

quicken global networking and allocate information source correctly for education and research. It also develop information consulting business service for reform and decision. Complying with need of library cause, librarians should redefine their social responsibilities; library and information education organizations should adjust its reform thoughts too.

2. Librarians' social responsibilities under network environment

Facing more expanded and disordered information resource, librarians should put their specialty of information management to good use, and bring the function of intellectual information service into play. We can generalize their responsibilities in network age as blow:

(1) Internet Information navigation, providing source information

Under network environment, Internet has become a large library form which people obtain information, Librarians should correspondingly become the type of information navigation, who can lead users to enjoy a trip online and show Internet information for them. For the reason that Internet information are numerous, wide, diversified, dynamic, uneven in quality, and librarians are good at information collecting, processing, distribution, construction, researching and serving, they can bring this function of information navigation into play.

(2) Internet information organization, providing processed information

The working object of information organization is either information online or information in self-developed database. In the world, this kind of business done by librarians has gotten a great success, such as “clearing house Internet special resource guide” developed in America, “guide of Internet special information database” discussed and setting up in China. Besides this, information organization based on library collection source are more diversified. The forms are:

1) document base, such like frontpage of library; 2) database, such like *Chinese academic journals*, etc. 3) knowledge database like topic information journals, topic information base or topic consulting report, etc. , which are processed at deep layer.

(3) Internet information development, providing desired information

Desired information ” is put forward by Belkin, expressing more concerns with users subjectivity and reflecting their cognition structure. Desired information is distinguished with what we called “needed information”, because it must be gained by developing. Information development at present has a more special and profound form namely “information mining”, which has become a special concept. It provides users with profound information, by comparing with concepts and their relevance, from information base consisting of non-isomorphic data. By this way we can do data mining and full-text mining, and reform the intention of traditional SDI(Selected Dissemination of Information), making great progress at width and depth of information than before. Only when more and more information developing means have been researched and provided, users' information need which are more personal

and reflects their cognition structure, can be met well.

(4) Internet information consulting service

As important component of social information consulting industry, libraries should develop consulting business and improve service quality. These business include: set up records of consulting cases and classifying index of Internet resource; help to build information retrieval formula; help to construct users' own information logging in; set up frontpages; search database; train users online, etc. Compared with traditional information consultation, the business online has some outstanding features as: more usage of computers and information techniques to search and process information; more information exchange with users through Internet; consultants having more knowledge about broadcast, TV station, computer network, communication, etc; consultants being more skilled at using information techniques, than traditional consultants. Therefore, library consultants must train themselves of knowledge online and renew old knowledge, in order to undertake responsibilities for society.

Along with transform of librarians' responsibilities, their social image and orientation have changed. According to present materials, we can sum up three points of view. First, regarded in foreign, so called "infor-librarian" is such a librarian who can extract information resource from a large special digital library, then distinguish, choose, process, finally provide relevant index and electronic journals, technical reports, data files, and other visual materials for users. Secondly, by a German at 62th ILAS in Beijing, the librarian can be defined as "network professional", "information middleman", "system designer". Thirdly, by internal scholar, the librarian should become the network manager. Their working model is: set up library workstation from which they can collect, arrange, analysis and convey Internet resource timely, becoming "electronic navigator". Moreover, librarians are considered as "Electronic serving librarian" "CD_ROM librarian" "Internet librarian", etc. Obviously, this means not adding new positions, but reforming librarians to get used to new technical environment. To some extent, the change of librarians' social image and orientation determined direction of the reform library and information science education

3. Principles and measure of library and information science education reform

Conducted by social demand, the reform direction should be: conform to development of network, bring librarians' abilities at information and knowledge management into good play. The main goal of reform is to develop persons who are good at Internet resource collection, processing, protecting and consulting, etc. To realize it, many problems should be considered and solved, but the author will discussed mainly on some key measures of the reform.

(1) Put more weight on the practical teaching of Internet information

It means, in this kind of teaching, theory knowledge is necessary, but we should also develop practical ways, combining topic subjects.

The theoretical teaching should be taken according to the following: 1) guide students to understand main situation of Internet, such as: network construction, information resource distribution, features of multimedia information; 2) help students be familiar with network functions, such as E-mail, FTP, BBS, E-meeting, information search, etc. 3) students should master some necessary network techniques.

In practical teaching, our principle should ally with library's business departments, educating students with thought of "Problem solving", including as below: construct users to get correct searching roads of information; help to download relevant information and arrange into topic information base; organize to develop practical software; do at deeper layer information producing and announcing service. We can also attract students to join in some research or development tasks, so as to improve their abilities at information management.

(2) Take seriously the guidance and education of the idea of intellectual property rights balance

Advance of information techniques has greatly changed the system and structure of intellectual property rights laws, and even extent their intention. The main reasons lie in two aspects. On one side, the revolutionary changes of information resource's creating, spreading and using originating from techniques must be adjusted by the intellectual property rights system; on another side, establishing and perfecting the system can also improve the development and reform of social information resource management's mechanism, at both lays and links. Therefore, we can learn and master essentially the balance of intellectual rights protection and encouragement. it's useful to strengthen social consciousness of valuing intellectual property rights and developing or using information properly; it's also useful to understand for students many problems about intellectual; properties protection, especially in specific stage of IRM and for specific information subject.

For instance, for information producer, the system of intellectual property rights can protect their rights and interests, encourage their activities to research, develop, produce and spread the productions of science technique, art, literature and industrial; for system of social information resource, with more and more people's creating activities and information resource, the management of information have more abundant working source; for managers of information, it's reasonable that their work is a kind of intellectual one and their rights and interests should be met by intellectual property right laws, so their social status will be higher; for information spreader, the system of intellectual property right can standardize their actions of reproducing documents, duplicating, reporting, setting up bookstore online or other authors' works base, spreading and exchanging others' information productions with intellectual property right by BBS or E-mail, etc. Intellectual property right system is the best way to adjust and administer the electronic or virtual environment; for information traders, the system can restrain their blind, free or illegal market activities; for information users, since it's easy to break rules by information techniques, the system can also be the balance of the contradictories.

(3) Strengthen education of information literacy for the students in LIS specialty

Information literacy can be understood in broad sense as: the qualities about information including information intelligence, information morality, information awareness, information conception possessed by information society members. For everybody, the process of recognizing and reforming the world is also the process of information inputting, processing and outputting. In this course, they should have the aid of producing tools and bring their subjective enthusiasm into function in order to influence the world profoundly. Advance of information techniques and information system extended social members' information organs, and provide them with high effective tools. Otherwise, in reality, information literacy is different between different subjects. Beside the difference of their knowledge structure, the most important reason is that, the applying pattern and extent of information techniques system are closely related to people's information literacy. Only when librarians possess excellent information literacy, their social responsibilities will be brought into good play. For this reason, first of all, student in our principle must be strengthened at their information literacy, then to improve those of the whole society.

(4) Reform and design course system of library and information science education

Changes of librarians' responsibilities under network environment demand to reform the goal of library and information science education. Since that librarians undertake functions of not only information navigation and processing, but also developing and consulting service at deep layer, which request them to go deep into content of special knowledge, mining or processing, in order to provide specialized and designated information products. To realize these functions, librarians should be provided with wide knowledge, all-round knowledge structure, as well as profound special knowledge. But this article will not discuss on particular course system or module, but some trains of thought in education reform. According to responsibilities of librarians under network environment, we should set up the general curricula, the specialty courses, the specialty foundation courses, interrelated specialty courses and particular specialty courses; pay more attention to allying our subject with other subject; encourage sharing and coordinating of education force between different subjects and different colleges; making our principle become a really very open principle, so as to develop a large mount of talent persons of information resource management.

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