



Research on Strengthening the Capacity of Catalogers of Documentary Information Resources

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Abstract. Cataloging is a fundamental and key task of libraries and other documentary institutions, and it is a fundamental guarantee for the development of documentary information services. This paper analyzes the significant changes and challenges brought by the new situation to the cataloging work of documentary information resources, compares and analyzes the gaps in the competency of documentary information resources cataloging personnel at the present stage, and on this basis proposes several initiatives to improve the information literacy and competency of cataloging personnel in terms of cataloging concept, professional ethical quality education, continuing education, job qualification system and self-learning ability, so as to lay a solid foundation for libraries and other On the basis of this, a number of initiatives are proposed to improve the information literacy and competence of catalogers in terms of professional ethical quality education, continuing education, job qualification system and self-learning ability, so as to lay a solid foundation for libraries and other documentary institutions to carry out their business work such as documentary information resource service guarantee.

Keywords: Documentary Information Resources; Cataloging work; Cataloguers; Capabilities.

1 Introduction

The main task of document information resource cataloging is to describe the characteristics of document information resources in a unified way and provide users with corresponding methods to retrieve resources. Cataloging is a basic and key work of library and other document institutions, and is the fundamental guarantee for developing document information services. Only through a set of strict and unified cataloging process can document information resources form an orderly information flow for retrieval and be used by the majority of users. With the development of computer network, cloud computing, big data and other technologies and their application in libraries and other literature institutions, the way of information representation, acquisition and utilization has undergone fundamental changes, which, of course, has brought a series of new changes, new challenges and higher requirements to the cataloging of literature information resources. The ability and quality of catalogers di-

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rectly affect the quality of document information resources cataloging in document institutions, and further affect the guarantee of document information services^[1]. Strengthening the quality and capacity building of document catalogers is a quality project that is always on the way.

2 Changes in the Cataloging of Document Information Resources Under the New Situation

In recent years, with the development and change of information technology, the cataloging work of document information resources is facing various opportunities and challenges. The emergence of digital technology has made profound changes in the cataloging work of libraries and other document institutions. How to improve the ability of catalogers of document information resources, organize and describe resources efficiently, reveal the relationship between resource catalogs, and meet the expectations and needs of various users has become the core issue of document information resource cataloging. This section makes a detailed analysis from four aspects: cataloging object, cataloging mode, cataloging rules, and cataloging data format, which lays a foundation for the research on the ability and quality of catalogers of document information resources.

2.1 Changes in Cataloging Objects

Traditional document information resource cataloging mainly aims at paper resources such as books, papers and periodicals. With the development of information technology and the innovation of cataloging concept, new document information recording carriers emerge as the times require. Paper carriers are insufficient to describe and record document information resources. Especially in the network information era, a variety of electronic information resources emerge one after another. Such resources have the characteristics of wide coverage, large quantity, rapid growth, heterogeneous and diverse forms, difficult representation, and lack of unified description standards and specifications. The software and hardware network environments for storing, displaying, and disseminating information resources are also different. These new situations have brought new contents and challenges to the cataloging work. In addition, the concept of cataloging metadata has been put forward internationally, which expands the scope of cataloging objects.

2.2 Change of Cataloging Mode

Under the new situation, great changes have taken place in the work mode of document information resource cataloging, and online cataloging has become a new development trend. For example, online cataloging uses computer network technology to build a unified cataloging platform for different electronic resources scattered in different document information institutions, establish an online cataloging center, and build a unified electronic database. Cataloging personnel of various document institu-

tions describe and index their own documents according to the unified document information resource cataloging platform, cataloging rules and standards, and after the review of the cataloging center, Rich and perfect the unified electronic database. All literature institutions can also copy the machine-readable data related to their own institutions through online retrieval to establish their own bibliographic database. It can be seen that online cataloging is based on the network, takes resources as the core, takes unified cataloging rules as the standard, and aims to improve the efficiency of cataloging and resource sharing, so as to finally realize the standardization, informatization, networking and integration of cataloging. At present, China has five online joint cataloging systems, including the National Library's Joint Cataloging Center, Shanghai Municipal Document Joint Cataloging Center, the National Science Library's Online Joint Cataloging System of the Chinese Academy of Sciences, CALIS Joint Cataloging System, and the local edition document joint collection and compilation cooperation network^[2]. Through the establishment of online joint cataloging system, the target database is well unified, and the efficiency and benefit of document information resource cataloging are improved.

2.3 Changes in Codification Rules

Cataloging and indexing are two main parts of the cataloging of document information resources. Among them, the standardized and standardized description methods and methods are the cataloging rules of document information resources. Since its birth more than 30 years ago, AACR2 has always been an internationally unified cataloging rule, playing a mainstay role in the history of cataloging. However, at present, AACR2 has limitations and shortcomings. For example, AACR2 mainly describes paper-based literature resources, serves the library's literature staff, and only pays attention to the description of a single record in literature description. The relationship between documents and records is difficult to reflect, so it is difficult to adapt to the new requirements of document information resource cataloging under the new situation^[3]. With the emergence of various media, the progress of computer technology and the development of the Internet, in order to adapt to the requirements of various resource descriptions under the network environment, a new cataloging mode - Functional Requirements for Bibliographic Records (FRBR) has been proposed internationally. On this basis, the latest international cataloging rule - Resource Description and Access (RDA) has been issued, The advent of RDA has brought great changes to the international cataloging community, and RDA reflects the latest progress of the international cataloging community. In order to achieve the integration with international cataloging, China has carried out the standardization of Chinese document resources cataloging. In 2005, based on the latest version of ISBD and the British and American Cataloging Regulations, the National Library Joint Cataloging Center organized experts in the field to revise the Chinese Document Cataloging Rules and issued the Chinese Document Cataloging Rules (Second Edition) as a unified document information resource cataloging rule. The unification of domestic cataloging rules has become the consensus of the industry and is a major trend.

2.4 Changes in Codification Data Format

Machine readable catalog is a catalog format that records bibliographic description data on the carrier with computer recognized code and is recognized, processed and retrieved by the computer^[4]. After MARC was developed and promulgated in 1965, the Library of Congress of the United States successively launched MARCI, MARCII, LCMARC, USMARC and MARC21 and other cataloging data formats. MARC21 mainly consists of five parts: bibliographic data MARC21 format, normative data MARC21 format, classified data MARC21 format, collection data MARC21 format and group information MARC21 format. The improvement and development of MARC has laid a solid foundation for online cataloging.

With the development of the network era and the diversification of electronic information resources, the existing cataloging methods, rules and data formats are facing great challenges. The cataloging data format based on MARC is not suitable for the description of diversified electronic literature information resources. In order to adapt to the development of the new situation, the Library of Congress introduced MARC into the Internet and developed a component oriented, extensible network MARC framework based on XML environment, which supports the integration and sharing of all MARC encoded data. On this basis, it has become a new trend to adopt new metadata format to describe network literature information resources. Metadata is also data of data. Based on the ideas of knowledge representation, artificial intelligence and data management, W3C proposes Resource Description Framework (RDF), which uses XML technology to describe MARC metadata, thus describing the characteristics of network information resources and their relationships.

3 Analysis of the Current Situation of the Ability and Quality of the Catalogers of Document Information Resources

With the development of computer network, cloud computing, big data and other technologies and their application in libraries and other literature institutions, a series of new changes, new challenges and higher requirements have been brought to the cataloging of literature information resources. Compared with the new changes and new requirements analyzed in Section 1, there is still a big gap in the ability and quality of document information resource cataloging staff in China. On the whole, the comprehensive quality of document cataloging staff in China needs to be improved, which is reflected in the relative lack of professional knowledge, weak awareness of document information resource sharing, weak learning ability, weak awareness of standardization and standardization, and weak communication ability with users.

First, due to the nature of the work, catalogers are not highly motivated and lack professional identity. Due to the particularity of the work nature of the catalogers, they are basically engaged in behind the scenes work, and the work is relatively tedious and boring. Their work achievements are not easy to be found by leaders, which leads to low enthusiasm for work and affects the quality of document information resource cataloging. Therefore, the document information service staff at all levels

should fully understand the important role of cataloging in the document information service, effectively enhance the professional sense of mission and identity of the cataloging staff, and improve the enthusiasm of the cataloging staff.

Second, the knowledge structure is unreasonable and technology is aging. Modern information technology has developed rapidly, and knowledge in the field of cataloging has also been updated rapidly. However, most catalogers have a single knowledge structure, are insensitive to new theories and knowledge, have few opportunities for further education and training, and are not strong in self-learning ability. They cannot master the latest cataloging theory and work skills in a timely manner, and can not adapt to the changes and requirements of the new situation (for example, they cannot meet the requirements of RDA for catalogers) [5].

4 Several Measures to Improve Catalogers' Information Literacy and Competence

In order to adapt to the new international cataloging concept, China will certainly revise the existing cataloging rules in the future with reference to RDA related theories, which will put forward new requirements for the information literacy and professional skills of cataloging staff. Therefore, it is necessary to establish and improve the ability training system of cataloging staff that integrates "academic education, vocational education and self-education", and comprehensively improve the comprehensive professional quality of cataloging staff. In order to adapt to the innovative development in the field of international cataloging and the reform requirements of China's cataloging work.

4.1 Establish a New Concept of Cataloging

In the era of network information and big data, the types, modes of existence and forms of expression of document information resources have undergone profound changes, and users' means and ways of obtaining information resources have also changed accordingly. The cataloging concept of RDA is precisely based on this change. By using unified rules and methods to describe information resources with diverse types and heterogeneous forms, starting from the source of document information resource description and cataloging, it breaks the restrictions of different languages, different document resource types and carriers, and meets users' requirements for resource retrieval, discovery, identification, selection, acquisition, utilization, etc. These cataloging ideas and concepts are of great guiding significance to the cataloging of document information resources in China.

First, we should establish a cataloging concept that combines theory with practice. Cataloging rules have both theoretical and practical characteristics. On the one hand, cataloging rules should reflect the latest cataloging ideas, cover the latest cataloging theory, and provide theoretical guidance for cataloging staff on a macro level; On the other hand, the purpose of cataloging rules is to guide the practice of cataloging and to meet the needs of users in searching, retrieving and utilizing literature information

resources. Therefore, to carry out the work related to the cataloging of document information resources with the cataloging rules as the standard, it is necessary to establish the concept of combining theory with practice, pay attention to the work goal of effectiveness, guide practice with theory, test and enrich the cataloging theory in practice, promote the continuous development of the cataloging rules of document information resources, and make it more meet the needs of document service practice and users' diversified use of document resources.

The second is to establish the concept of user centered cataloging. The Statement of Principles for International Cataloging sets forth nine principles for the formulation of cataloging rules, among which the first principle is "user convenience". RDA also clearly stipulates that its first goal is to respond to and meet users' information needs, and takes the response of cataloging data to users' basic needs of "retrieval, discovery, identification, selection, acquisition and utilization" as the primary task, which is consistent with the purpose of the Statement of Principles for International Cataloging. It fully reflects the user centered cataloging concept and principles. Therefore, the innovation of document and information resources cataloging in China should also establish the service concept of "user demand as the center", and adhere to the development concept of keeping pace with the times, technology promotion and independent innovation.

4.2 Strengthen the Professional Ethics Quality Education of Catalogers

Good professional ethics is the premise for any professional work. For cataloging, professional ethics is also the basic premise for carrying out document information services. The professional ethics quality of cataloging work is mainly reflected in three aspects: "customer first service awareness, tireless dedication, and teamwork attitude". First of all, it is the ultimate goal of the cataloging work to provide literature information services for readers and users. It is necessary to strengthen the service consciousness of "users first" of catalogers, give play to the advantages of catalogers in being familiar with literature information resources, provide basic services in the collection, cataloging, indexing and other links of literature information resources, and provide reference and consulting services in the retrieval and utilization of literature information resources to meet the information needs of various users. Secondly, the essence of document information resource cataloging is to accurately describe the internal and external links between different disciplines, different forms of expression, and different types of document resources. The quality of cataloging data directly affects the retrieval efficiency and utilization effect of document information resources, which requires catalogers to have tireless dedication and rigorous working attitude, and objectively, comprehensively and accurately record the main characteristics of document information resources. Third, the cataloging work process is a complex process, involving many aspects of the literature information service work, which is related to the overall situation of the literature information service work. Cataloging personnel should have a sense of the overall situation, the overall concept, establish the spirit of unity and cooperation, and lay a solid foundation for other aspects of the literature information service work.

4.3 Strengthen the Continuing Education of Catalogers and Improve Their Ability and Quality

At present, the gap in the comprehensive quality of catalogers in China is mainly reflected in the single structure of professional knowledge, the slow updating speed of knowledge and theory, and the low information quality. In particular, in terms of information quality, catalogers still need to improve their ability to judge, analyze, screen, acquire, organize and synthesize various types of network information^[6]. Therefore, it is necessary to build a trinity ability training system of "academic education, vocational education and self-education" for catalogers to improve their professional quality, information quality and foreign language level. First, broaden the way to improve the education level of catalogers, and encourage them to continue to study in this field through full-time, equivalent education and other means. This is a highly targeted form of continuing education. It is an important way for catalogers to update knowledge theory, optimize knowledge structure, improve information literacy, and enhance comprehensive business quality. The second is to organize catalogers to participate in continuing education such as on-the-job training and post cross training related to cataloging, improve their professional abilities and post skills, and popularize RDA theories and methods for catalogers^[7]. Third, training abroad. There is a big gap between China and the advanced countries in Europe and the United States in terms of the concept, practice and development of cataloging work. If conditions permit, catalogers should go abroad for further study, more in-depth study of RDA theory, carry out cataloging skills training, and actively participate in international conferences in cataloging related fields to learn advanced cataloging concepts, working methods and management models abroad.

4.4 Trial Implementation of Post Qualification Certification System for Catalogers

At present, the professional relevance of the personnel engaged in the cataloging of document information resources in China is generally not strong, and the cataloging personnel are not enthusiastic about improving their comprehensive professional quality, which requires the establishment of access mechanisms and incentive mechanisms for the cataloging of document information resources. Through the trial implementation of the post qualification certification system for cataloging personnel, the authoritative department will carry out the professional skill appraisal and qualification certification, take posts with certificates, define the learning objectives of cataloging personnel, stimulate the learning motivation of cataloging personnel, actively participate in the "trinity" training and education, and promote the improvement of the overall quality of cataloging personnel.

5 Conclusion

The cataloging of document information resources is a basic and necessary work of document institutions. In the cataloging work, the quality of catalogers is the key.

Especially in the new situation, catalogers should master solid basic knowledge of disciplines and computer related knowledge, be familiar with cataloging rules and tools, and have a strong foreign language level. The overall comprehensive quality of the document cataloging staff in China is not high, the information literacy is lacking, and the professional knowledge and professional skills need to be improved. Under this situation, this paper focuses on how catalogers adapt to the changes and challenges of document information resource cataloging work under the new situation, carries out research on strengthening the ability and quality of document information resource catalogers, puts forward relevant suggestions, and provides reference for the development of library document cataloging work.

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