

Research on the Application of RDA in Book Cataloguing

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Abstract: With the continuous development of information technology and the increasing richness of literature resources, the cataloguing regulation AACR2, which is widely used in the field of international cataloguing, has exposed various problems and defects that cannot keep pace with the times, so RDA came into being at the historic moment. RDA is an international cataloguing standard covering all content and media resources. RDA cataloguing has become the direction of cataloguing work. In order to better grasp the latest developments in the field of international cataloguing, provide guidance for the cataloguing work of digital libraries, and study the application of RDA in the cataloguing of digital libraries. This paper introduces the emergence and development prospects of RDA, analyzes the impact of RDA on the cataloging of books in China, summarizes the preparation measures for the current book promotion RDA, and finally discusses the application practice of RDA in book cataloging. This paper gives a positive attitude towards the application of RDA in Chinese cataloging, and expects that Chinese cataloging work will be in line with international standards as soon as possible.

1. Introduction

With the continuous change of Internet technology, database technology and data resources have also changed constantly, which has led to an increase in the number and types of digital document resources, and the amount of information has been fissile growth [1]. For books, it is accompanied by the increasing cataloging of digital resources [2]. Resource description and retrieval originated from the Anglo-American Cataloging Regulations (Second Edition), which is guided by the principles of the International Cataloguing Principles Statement, following the functional requirements of Bibliographic Records published by IFLA and the functional requirements of regulatory data. The conceptual model of the latest international cataloging rules, developed in response to the development of the digital environment, aims to meet the new requirements for resource mapping and retrieval in the digital environment and become the peer standard in the digital world [3]. RDA is a document information cataloguing standard designed for the digital environment. It provides cataloguing guidelines for various types of information resources and is convenient for users of libraries and other information institutions to search for the required document information [4]. RDA is based on the concept of FRBR model, meet the digital resources not only inherited the FRBR catalogue, hierarchical structured show the advantage of the bibliographic information, at the same time it also overturns the past thinking of cataloging, with directory users as the center, to work as the center, convenient on the set of rules to maximize the user to identify search for information they need [5].

In 1967, Britain, the United States and other countries compiled and launched the AACR1 standardized cataloging guidelines according to the national cataloging principles [6]. With the advent of computers, machine-readable directories have gradually replaced manual methods. JSC has become the international standard in the online directory era by jointly revising AACR1 and releasing a new version of AACR2 [7]. Since then, with the continuous development of digital technology, information carriers have become increasingly diversified, information storage formats have increased, and the traditional AACR2 cataloging method has led to the incompatibility of document

resources with various formats. RDA is made up of JSC members composed of American Library Association, Australian Cataloguing Committee, British National Library, Canadian Cataloguing Committee, Royal Chartered Library and Intelligence Institute, and Library of Congress of the United States [8]. In 2004, JSC decided to revise AACR2 in an all-round way to solve the problems existing in bibliographic description. In 2005, JSC recognized the role of resource description and information retrieval, and announced the re-adjustment of cataloging revisions [9]. RDA strives to cover all content types and media types of resources, from general to special, providing a unified method for recording and retrieving different types of document resources. According to the FRBR model, RDA divides the described resources (recorded objects) into four levels: work, content expression, manifestation and single piece, and records the relationship between entities, attributes and entities [10]. The new cataloging perspective and approach that RDA brings and its unique advantages make RDA a great potential application.

2. Materials and Methods

Faced with the increasingly complex information environment, users are increasingly demanding information retrieval. However, it is more difficult to obtain valuable information from massive resources. Faced with this contradiction, digital libraries break through the traditional cataloguing and cataloguing methods in the construction of information resources, analyze, describe and reveal document resources from various perspectives, relying on clustering, Association and semantic analysis tools, provide users with multi-control search points, meet the needs of users at different levels, and become the direction of digital library builders' unremitting efforts. Because of the popularity of online cataloguing on the Internet, the AACR2 cataloguing regulations commonly used in the field of libraries highlight their limitations, and it is difficult to guarantee the diversification requirements of document Cataloguing under the new environment. FRBR, composed of entity, attribute and relationship, is a conceptual model to reveal the mapping relationship between bibliographic records, as shown in Figure 1. It is not the actual cataloguing rules, but the re-establishment of cataloguing theory, overturning the traditional physical state cataloguing mode, and laying the foundation for the preparation of RDA. RDA is the inheritance and extension of FRBR conceptual model. It ADAPTS to various forms of media resources through rational application of attributes, relationships, content expression and other factors, making digital resources extensible and flexible. RDA is designed to be user-centric, to help users use different types of resources and discover similarities between different resources.

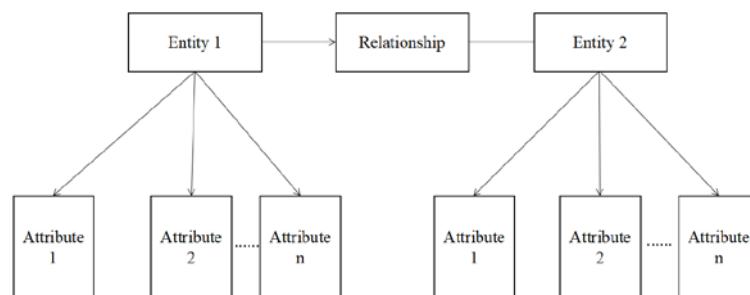


Figure 1 FRBR conceptual model

RDA is the current international standard for cataloging, which aims to strengthen the internal connection of different resources, supports the description of resources in different carriers and formats, ADAPTS to the increasingly virtual cataloging environment of resources, and also has a profound impact on the cataloging work of digital libraries in China. RDA was originally compiled in English, and its revision publishers mostly came from countries such as Britain and the United States. As RDA becomes more widely used, compatibility issues in other language cataloging environments will need to be considered. Although ISBD is an international standard for description, it has different applications for key elements due to the differences between different cultures. Chinese cataloging

resources are abundant in the field of library in China, focusing on Chinese paper documents, while there are few catalogues in other languages. The introduction of RDA is bound to promote the integration of Chinese and western cataloging thoughts. For this reason, Chinese libraries use RDA cataloging ideas for reference and adjust the cataloging methods based on FRBR conceptual framework to make Chinese cataloging adapt to the digital environment, and promote the integration of different carriers and language literature resources. RDA pays attention to the integration and cataloging of digital resources from the user's point of view in order to facilitate users to retrieve documents, so as to bring users a better experience. As a new cataloging rule, RDA has been adjusted many times in the process of compiling, and finally came out with a new look. It hopes to make up for the deficiency of AACR2, realize the description of all resources in the new information environment, and help users to find, identify, select and acquire resources.

3. Results

RDA is divided into two parts: text and appendix. There are altogether 10 parts in the body, 37 chapters, and 11 chapters in the appendix. Part 1-4 of the text is about entities and their attributes. Part 5-7 is about the relationship between resources and entities. Part 8-10 is about the relationship between groups of entities. The RDA architecture is shown in Figure 2. RDA cataloging information source uses "preferred information source" instead of "main information source" in AACR2, which means that there can be multiple information sources. RDA enlarges the scope of data sources, enriches the content of description and makes the relationship more accurate. In terms of cataloging practice, document resources cataloging is not only the basic business of the library, but also a core business. Document cataloging has always been the focus of research in the library circle, especially cataloging personnel. China's cataloging field has realized that RDA will have a certain impact on the domestic literature information description work. It is believed that the improvement of Chinese cataloging work based on RDA will enable the bibliographic data to contain more information and can be used for the attributes of various document resource types. description. RDA cataloging can be used not only for traditional Chinese papers and document resource types, but also for known and even some unknown document resource types found in museums and archives. At the same time, RDA is able to achieve effective coordination and unification with the various cataloging rules and standards currently in use.

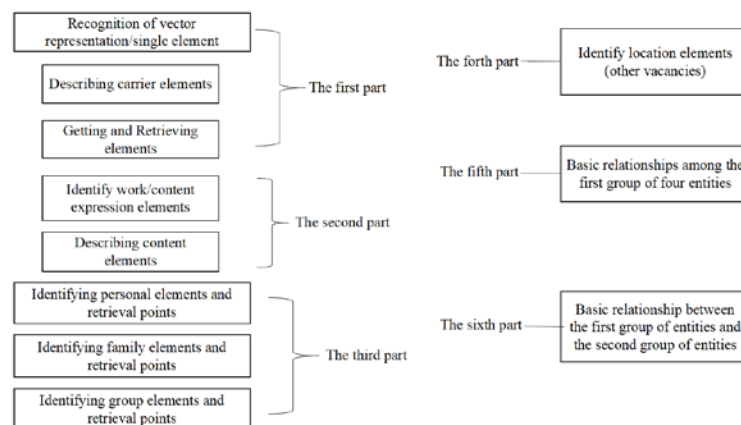


Figure 2 RDA architecture

The premise of real application of domestic library RDA is localization, but the realization process is arduous and lasting. The principles of cataloging are common and the rules of cataloging are different, but different from classification, there are basically no cultural and ideological barriers, so most of the differences of cataloging rules are not irreconcilable. RDA, a new international cataloging method, has added description fields related to works in the compilation, and added more retrieval points by means of hyperlinks to facilitate users to find more relevant content and improve user satisfaction. The description part of RDA is mainly distributed in the first part of RDA, namely, the two entity attributes of "carrier expression" and "single item". The description part of the content

in the second part is also the description part of RDA, which is similar to the partial description items of "special details of literature", "carrier form" and "notes" in Chinese edition. The distribution of RDA description content is shown in Table 1. Whether the localization options provided by RDA are compatible with the long-standing practice tradition of our country, whether they meet the needs of Chinese cataloguing of RDA, and whether they conform to Chinese users' retrieval habits determine the choice of RDA localization strategy. At present, the cataloguing rules in our country are based on Chinese and foreign documents. RDA is published in the form of online toolkit, which combines annual price with the number of users. The price is relatively high, as shown in Table 2.

Table 1 Distribution of identified content of RDA recorded items

Part 1 Record carrier performance, single item attributes	1 General principle of record carrier performance, single item attributes
	2 Identification carrier performance single piece
	3 Description carrier
	4 Provide access and retrieval information
Part 2 Recording the properties of the content	7 Description

Table 2 RDA toolkit price table

Number of users	1	2-4	5-9	10-14	15-19	More than 20
Annual price (US dollar/account)	185	175	165	160	155	152

The extensive penetration of digital cataloguing environment has led to great changes in the object of document cataloguing work. The carrier of document resources has become more diversified. The traditional printed document, which is mainly based on paper carrier, has been transformed into many new types of documents, such as electronic books, multimedia documents and so on. The change of the carrier of document resources has also led to great changes in the way users access document information. The birth and popularization of RDA is a new opportunity for Chinese cataloguing circles in our country. We should take this opportunity to form a good cataloguing rules revision mechanism, draw lessons from the experience of RDA compilation, and organize by the specialized agencies responsible for formulating and promulgating Chinese cataloguing rules in the cataloguing field, or authorize national libraries, the Chinese Library Society and large-scale joint cataloguing by such organizations. Recording and other compilation agencies jointly form a well-structured management body to ensure the effective implementation of cataloguing rules. The principle adopted by RDA for information description is "truthful description". Compared with AACR2, which is more inclined to serve card catalog, RDA national catalog is more detailed and comprehensive. Because RDA is not limited by storage space, it truthfully records the version description, etc., without having to abbreviate or replace Roman numerals with Arabic numerals, Chinese ordinal numerals, etc.; In AACR2, appendix B provides the full abbreviation table, while appendix C provides the Roman, literal and numerical tables. The catalogues shall be made in the form of abbreviations and Arabic ordinal words. In general, RDA is more optimized than AACR2, and the comparison between the two is shown in Figure 3.

From the point of view of RDA architecture, it no longer takes document type as the outline and eight cataloguing items as the order to construct cataloguing rules, but contains all document descriptions by constructing entities, attributes and relationships. That is to say, any document resource can be decomposed into corresponding entities and find corresponding elements to describe it under the entity. It integrates traditional cataloguing and cataloguing into attributes and relationships. In relationships. At this level, RDA transforms the cataloguing work from "carrier performance" to "entity" as the center, and "work" as the center in "entity", which is a subversion. RDA is a set of cataloging guidelines and guidelines. The bibliographic function under the conceptual model focuses on the realization of user tasks (find, identify, select, acquire, understand), and its design goals maximize the convenience for catalog users, but The realization of the cataloging results

ultimately depends on the display of the library application platform, which is the portal for users to directly enjoy and participate in the RDA cataloging. As a content standard, RDA breaks through the planar structure of traditional records and realizes the three-dimensional network structure of physical attributes. On the catalog object, expand from the entity catalog to the virtual object catalog. In the cataloging process, from the independent cataloging of professional knowledge catalogues to the online cataloging method with information users. RDA concepts and operational processes are tantamount to bringing new challenges to traditional catalogers.

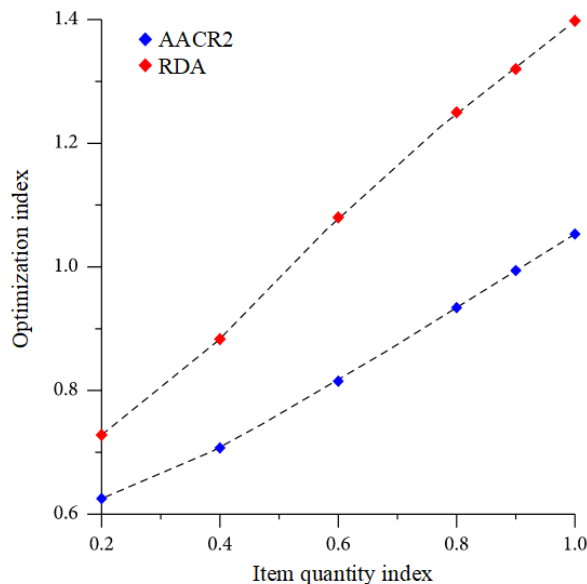


Figure 3 Comparison of RDA and AACR2

4. Conclusions

As a new international standard for cataloguing, RDA has been implemented in the United States, Canada, Germany and other countries. Our country is still in the research and learning stage of RDA, and the basic conditions for cataloging by RDA are not yet available in China's library field, and it will continue to follow AACR2 localization rules for cataloging in a very long period of time. RDA, as a new international cataloging standard adapted to the virtualized cataloging environment, makes up for the deficiency of traditional cataloging methods and has a more flexible operation mode, which plays a guiding role in the cataloging work of libraries. RDA has been adopted by some libraries in our country and used in the cataloguing of Western books. I believe that more libraries will adopt RDA in the near future. This paper makes a deep analysis of the structure of RDA and explores its application in document cataloguing, especially in digital resource cataloguing, with examples, to provide some reference for the next possible adoption of RDA cataloguing. The application of RDA in China's digital libraries will help our country to innovate the mode of document cataloguing and conform to the development trend of international cataloguing.

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