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### Resource Description and Access: Internationalizing, Teaching and Learning RDA Cataloging Abroad

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chapter fifteen

# Resource Description and Access: Internationalizing, Teaching, and Learning RDA Cataloging Abroad

Sheau-yueh J. Chao

*This chapter presents the history and development of cataloging codes; an overview of the Resource Description and Access (RDA) training courses; the author's experiences in library teaching and learning; cultural exchanges with the Chinese librarians at the National Central Library (NCL); international librarianship in cataloging, library technology, and development in Taiwan, the National Central Library, and the Library Association of China (LAC); and key findings of RDA in its development and transition, implementation, and implications.*

## Background: RDA in Global Context

Libraries are widely known for their mission of coordinating and sharing resources with their particular community (i.e., public, academic, institutional, school, etc.) and the general public. Thanks to the technological advancements in computer, telecommunication, and network technologies, libraries can disseminate and exchange information and knowledge quickly and efficiently regardless of distance or other constraints.<sup>1</sup> With the information explosion and rapid expansion of computer networks and information technologies, opportunities for library cooperation and resource sharing on a global scale are becoming easier and more practical than ever before.<sup>2</sup> However, due to the emergence and development of cataloging codes, growing needs include the standardization of practice and co-

operation among libraries. Compatibility of cataloging records facilitates services to users who move from library to library, minimizes redundancy of workloads, economizes library operations, and enables library cooperation through centralized or collaborative cataloging.<sup>3</sup>

Through collaborations we can sometimes decrease staff workloads or working at cross-purposes. Cooperative efforts provide an environment of interactive dynamics and shared responsibilities commonly found on a local, state, regional, national, and even international level among libraries, museums, associations, and institutions. Through appropriate arrangements of collaborative initiatives with other libraries or institutions, the level of partnerships shared by various library agencies could be collection development, bibliographic data, electronic databases, personnel, planning activities, and staff exchanges. Library cooperation should not be confined solely to formal arrangements, but rather should be viewed in a much broader context of informal personal interaction and sharing. For instance, while library collaboration is indeed about sharing materials via interlibrary loan, document delivery, and collection development, it is also concerned with sharing individual library expertise and experiences through joint conferences, webcasts or webinars, and personnel exchanges.

With the advent of digital formats and the increased rate of change in higher education, shifts in the context in which libraries function have brought the library and its catalog to a transitional point. Libraries are no longer the primary information providers. Instead, today's libraries are pervaded by more aggressive users seeking immediate digital information delivery services. To make an effective transition to the new reality, libraries need to undertake a broader analysis of how changing information technology and our rapidly evolving information resources are reflecting librarians' learning needs.<sup>4</sup>

Since the mid-nineteenth century, a series of cataloging codes have developed. Each new code sought to improve upon the preceding ones, from the earlier individual efforts to the later corporate undertakings focusing on international standardization and code unifications.<sup>5</sup> Revisions and changes have taken place in the cataloging codes, such as the Anglo-American Cataloging Rules (AACR) which was adopted globally by libraries in 1967. In 1961, one of the most important events in the evolution of cataloging codes took place in Paris and a statement of principles, which became known as the Paris Principles, was issued.<sup>6</sup> The Paris Principles is limited to the preliminary choice and the forms of headings only. Since its appearance, many other cataloging codes have been developed according to its provisions, notably the significant efforts by the members of International Federation of Library Associations and Institutions (IFLA) and the results of its series of regional worldwide meetings.<sup>7</sup> These meetings resulted in a worldwide agreement on the set of principles called the International Cataloging Principles (ICP) that underly cataloging practices for the digital age. It covered recommendations regarding the standardization of choice and forms of headings, guiding principles

for constructing cataloging codes, the International Standard for Bibliographic Descriptions (ISBD), and the Functional Requirements for Bibliographic Records (FRBR) and Functional Requirements for Authority Data (FRAD) terminologies for entities and relationships.<sup>8</sup>

Our mode of recording metadata has been changed significantly since the Library of Congress adopted the RDA standard in 2013. The new RDA standard offers a major step in the improvement of resource discovery and access because it guides the recording of content-specific embedded data with a set of practical instructions for its users. The RDA standard and its alignment with the conceptual models of FRBR and FRAD are recognized by the international cataloging community with the global context in mind. It focuses on the relationships between entities and the role of relations in the success of users by eliminating the “rule of three” used in AACR2 to determine the Chief Source of Information for the main entry of an item. Most importantly, cataloging records created according to RDA guidelines are fully compatible with AACR2 records.

Besides introducing these new changes, important links continue to exist between AACR2 and RDA. These changes gave rise to an unprecedented opportunity to create new workflows and face new challenges of revisiting our workplace-learning environment. There are also challenges for the connection between MARC and AACR2. The U.S.MARC, which is known as MARC21, has been widely used since 2010 and includes the need to apply punctuation as defined by AACR2. The UKMARC has been used in the United Kingdom dealing with bibliographic control and data retrieval of records in UK libraries.<sup>9</sup>

In terms of MARC codes, there are two families of machine-readable records in use today, U.S.MARC<sup>10</sup> and UNIMARC.<sup>11</sup> Each MARC code defines the character sets that are legitimate for its records, which provides the standardization of data structures for the exchange of machine-readable records among the national bibliographic agencies.<sup>12</sup> For descriptive cataloging in the Chinese language scripts, the process requires the definition of a standardized computer character set called Unicode. It is a universal character set as simple and basic as ASCII that meets the needs for supporting the major modern scripts, as well as many symbols in common use worldwide.<sup>13</sup> Unicode also defines the three encoding forms of 8, 16 and 32-bit code units, providing flexibility that makes it suitable for implementation in a wide variety of environments, including single script, multiple scripts, or fully global, so it may be implemented internationally without boundaries.<sup>14</sup>

The primary issue for Unicode in library applications is to define mappings between the existing character sets and the character repertoire of Unicode and its applications. Library of Congress has used Unicode to specify character sets to be used in U.S.MARC records. In the OCLC Connexion Client Guide, specific instructions are given regarding the use of Chinese, Japanese, and Korean (CJK) script data to catalog items in CJK languages similar to the use of other non-Latin script data in the client module. It also provides tools for MARC-8 character veri-

fication, how to link and unlink non-Latin script data with equivalent Romanized data fields, and the use of CJK E-Dictionary for the input of CJK characters.<sup>15</sup> Mappings have been defined for all the single scripts and may be fully developed in the future for multiple scripts as well.<sup>16</sup>

Digital materials present a new challenge for descriptive cataloging. In the past, items have been broadly described using a set of rules utilized by the cataloger. For instance, a book contains author, title, LCCN, ISBN, imprints, paginations, and subjects. Digital resources do not always contain this information in an easily identifiable attribute and this can lead to a lack of consistency in description. Additionally, the growing number and variety of resources (e.g. DVDs, music CDs, streaming videos, e-books, e-serials, etc.) demonstrates the complexity of links and relationships between those items as to make it difficult to apply the structured rules, thus creating a bigger challenge for catalogers.<sup>17</sup>

To reflect these changes in response to RDA is the extensible framework for describing all types of resources in the 3XX fields for physical descriptions, including Content (336), Media (337), and Carrier (338) following the replacement of General Material Designation (GMD). They are designed, not just by libraries, but by the global library community for its use, and to meet the specific needs of other communities as well. There is also greater complexity for gender as a descriptive attribute for personal names in authority records.<sup>18</sup> Although LC limits its catalogers in the Name Authority Cooperative Program (NACO) to a binary label of *male*, *female*, or *not known*, RDA reinforces regressive conceptions of gender identity and gives catalogers the flexibility to record more than two gender labels.<sup>19</sup>

Library online catalogs traditionally used the data elements produced according to AACR2 rules. Those data elements, however, were encoded in MARC format which was developed in the 1960s for typesetting by the Library of Congress to generate sets of printed index cards. In the early 1980s, MARC records were becoming the cataloging entries in online library catalogs.<sup>20</sup>

Throughout the past decade, the need for modifications intensified in the cataloging community due to continual upgrades to the new systems. The Dublin Core (DC) metadata standards<sup>21</sup> grew out of the contemporary needs of information users. The DC metadata fields that gave rise to other standards emerged during the same period as the World Wide Web in mid-1990s. DC articulates a context for objects in the form of “resource descriptions” which dates back to the earliest archives and library catalogs. However, today’s information professionals need a much simpler yet standard way to describe the new forms of intellectual output, as well as a more expandable and flexible way to encode the universe of digital resources. For this reason, RDA has developed to reflect the changes and needs of recording metadata which has transformed the nature and practice of cataloging standard replacing AACR2.

The significance of RDA applications lies in its improvement of resource discovery and access because it guides the recording of data in descriptive cataloging.

RDA states that descriptive records should include all of the core elements applicable to a particular resource that will enable users to find, identify, select, and obtain it. RDA builds on the foundation of AACR2 and is based on a theoretical framework that defines the shape, structure, and content of the new standard.

The key to understanding RDA is its alignment with the two conceptual models, Functional Requirement for Bibliographic Records (FRBR)<sup>22</sup> and Functional Requirements for Authority Data (FRAD). It is an international cataloging system for the growing global environment, adaptable to various media and resources common in the digital age and capable of enabling global resource sharing and improving data navigation and searches.

A particular focus for RDA in cataloging is the recording of relationships: between works, expressions, manifestations and items; between persons, families and corporate bodies; and between concepts, objects, events, and places.<sup>23</sup> RDA provides text linking and functionality supporting the creation of bookmarking and workflows, both institutional and user-centric.

## Library Technology and Cataloging Development in Taiwan

Taiwan was under Japanese occupation for fifty years until 1945 when it was returned to the Chinese government at the end of World War II. At that time, there were only about one hundred libraries, including public, college, special, and local libraries of various types and sizes. Between 1945 and 1951, the government of the Republic of China began its effort to re-establish the nation's war-stricken educational system and strengthen the support of library resources and services. Within a few years, the number of libraries in Taiwan dramatically increased, from 3,082 in 1982 to a total of 3,579 in 1989.<sup>24</sup> These libraries included the National Central Library (NCL) and its local branch library as well as other academic (3%), public (13%), special (14%), and school (69%) libraries.<sup>25</sup>

The modern technology of library and information services in Taiwan initiated in 1972 when the first computer processed catalog was produced at the National Tsing Hua University.<sup>26</sup> The first library project went operational in 1974 for which a rudimentary machine-generated library catalog was produced in Taiwan. The introduction of the Library of Congress MARC format in the same year not only supported the computer-printed catalog cards for the first time in Western-language books in Taiwan, but also built the foundation for future integrated library systems.

Towards the end of the 1970s, libraries began to develop electronic bibliographic systems that could process Chinese language materials. Although there were few library products developed by various institutions at the time, these systems were developed in isolation and were not mutually compatible due to the lack

of national standards and coordination among information experts in Taiwan.<sup>27</sup> However, some large-scale institutional plans also took place, which brought about a new stage in the advancement of library services and technology in Taiwan.

## The National Central Library and Library Association of China

The National Central Library (NCL), under the jurisdiction of the Ministry of Education, is the leading national library coordinating all library-related activities in the Republic of China. NCL was established in 1933 in Nanking, China. At the time of its relocation to Taiwan in 1948, its collection was numbered 140,000 volumes.<sup>28</sup> Towards the end of the World War II in 1945, the government in Taiwan made great efforts to re-build its community through several phases of technological development focusing on library resources and services. The construction of the NCL main library was completed in 1986 and the new library could accommodate 2.5 million volumes of materials and had a seating capacity of four thousand readers.<sup>29</sup>

NCL cooperates with publishers and other libraries to develop its role as a leading center for knowledge and information resources and services in Taiwan.<sup>30</sup> The library owns a unique collection of both historical and modern publications. The historical works are comprised of more than 135,000 volumes of rare books from the Song Yuan, Ming, and Qing dynasties, with the strength of classical literary works and anthologies published in the Ming dynasty.<sup>31</sup> Formats in the collection include written manuscripts in Chinese calligraphy, woodblock prints, annotated version of books, Dunhuang scrolls, ancient books, handwritten manuscripts, Han dynasty wood strips, thread-bound classics, and stone and bronze rubbings. Current publications include books, periodicals, government documents, paintings, property contracts and deeds, postcards, and handwritten manuscripts. The materials are highly recommended for researching the topics of Taiwan's social, economic, educational, and technological history and development.

As the national depository of the Taiwan government, NCL has been actively acquiring, collecting, and preserving government publications since the 1950s. More than sixty years later, it has collected over four million volumes in its holdings which include government publications, Chinese study materials, and e-books. In addition, there are foreign language books, theses and dissertations, journals, audiovisual materials, music scores, and electronic databases. The NCL branch library also contains an outstanding collection on subjects related to Taiwan and Southeast Asia, including gazetteers and works published during the time when Taiwan was governed by the Dutch and Spanish. NCL is working continuously to acquire, process, and preserve national publications, to sponsor educational activities and library research through international exchange programs,

and to promote scholarly interests through national and international forums such as the NCL Chinese Studies Symposium, tour exhibits, the RDA Workshop, and conferences.

The Library Association of China (LAC) was founded in 1953 as a nonprofit organization dedicated to promoting Chinese librarianship through joint efforts among librarians and library communities. One of the most important missions for LAC is to pursue the development of cooperative librarianship and establish a national library information network.<sup>32</sup> Members from NCL and LAC have been working collaboratively to coordinate conferences and training workshops in Taiwan.

The Chinese American Librarians Association (CALA), founded in 1973, is a registered nonprofit organization under the American Library Association (ALA), the oldest and largest library association in the world, providing association information, news, events, and advocacy resources for members, librarians, and library users.<sup>33</sup> CALA has seven chapters located in the Great Mid-Atlantic, Northeast, Midwest, Atlantic, Southwest, Southern California, and Northern California respectively, as well as membership from Canada, China, Hong Kong, Singapore, Taiwan, and other countries. The main objectives of CALA are to promote Sino-American librarianship and library services, develop Chinese American librarianship and services, and provide a vehicle whereby Chinese American librarians may cooperate with other organizations having similar or allied interests.<sup>34</sup>

## Teaching and Learning RDA Abroad

Information professionals, among them librarians, are constantly aware of the significance and benefits in exchanging and sharing their resources and services. As technological advances have allowed libraries over time to develop new types of catalogs, the cataloging environment has also undergone major changes in the nature of knowledge production.

In the past, librarians have assisted users in interpreting search results, but now users frequently search the catalog alone, on site or often remotely, so the catalog record is often the only connection between the user and a librarian. Therefore, catalogers must fully understand how the structure of catalog records function on public displays to enable users to accomplish certain tasks. Furthermore, catalogers need to apply the concepts of FRBR and FRAD to define entity relationships and user tasks to form the foundation of RDA and eventually build the relationship between end users and library resources. RDA embraces multiple opportunities for the entire user community, including both librarians and end users. It enriches user experiences by enabling catalogers to put better data into discovery platforms which will then result in better search and display options for end users.

For the next generation of catalogers, it is imperative for libraries to shift their focus on providing staff training and workplace learning opportunities in order

to make changes with bibliographic control and access to accommodate global library initiatives. With not only the Library of Congress moving to RDA in 2013, but also major public and research libraries around the world (including the British Library, Cambridge University Library, Library and Archives Canada, German National Library, and the National Library of Australia), it is necessary for librarians and cataloging staff to understand and be able to create records using the new RDA cataloging standards.<sup>35</sup>

The National Central Library and the Library Association of China sponsored an RDA Workshop which was held on May 21–23, 2013. Courses were presented by the Chinese cataloging librarians, who are members of the Chinese American Librarians Association (CALA), from the United States. The conference was entitled Resource Description and Access: A New Cataloging Standard without Boundary and without Limit. The *RDA Workbook* was developed based on the resources found in the RDA Toolkit, Library of Congress, IFLA, and FRBR. Speakers included Sally Tseng (University of California-Irvine), Charlene Chou (Columbia University), and Wen-ying Lu (University of Colorado-Boulder). Representatives from the United States were librarians Ester Lee, Carol Gee, and Sheau-yueh J. Chao. The participants included librarians, non-librarians, support staff, and teaching faculty from Taiwan and Macao.

The three day conference offered courses focusing on RDA rules and regulations. Day one included an introduction, examples of Chinese RDA records, comparisons between RDA and AACR2, and RDA cataloging for books and monographs. Day two covered RDA cataloging in continuing resources, multimedia, electronic journals, and computer resources. Day three included RDA Toolkit, corporate bodies, authority records, and series. OCLC examples of Chinese records were demonstrated to show how RDA organized information for various resources.

The instructors are experienced catalogers working in American academic libraries. They gave course lectures in Mandarin Chinese. Each course period was fifty minutes and there were three classes in the morning and four in the afternoon. Conducting a class in Chinese in Taiwan was an experience in its own right. Although the instructors were experienced in colloquial Chinese, their professional academic backgrounds, education, and training were received in the United States. One major challenge is that there is considerable variance in teaching method and curriculum design between the two countries. The sessions were structured to encourage open questions but the participants were not as enthusiastic and responsive as anticipated. There were cultural barriers for teaching RDA to non-Westerners in the conference.

The Chinese have great respect for their teachers and elders. Foreign guests are treated with great respect and utmost politeness. It is uncommon for participants to ask questions in many classes and the participants must be encouraged to engage in conversation before they will do so. Some issues arose, for example,

the cataloging of non-Roman resources using RDA, changes and concerns for diacritics in OCLC CJK, how RDA cataloging will impact my local library, and the progress of RDA implementations in Taiwan libraries. Questions can generally be answered in consultation with the RDA Toolkit and OCLC helpdesk. Regarding RDA implementation in Taiwan, the issue was answered by the Director General of NCL, Ms. Shu-Hsien Tseng.

Although the conference lasted for only three days, it established a foundation for international cataloging and library collaboration, as well as future opportunities on resource-sharing and library cooperation. Attendees not only learned about RDA cataloging and its basic guiding principles, but also expressed interest in future training courses to enhance and master RDA cataloging.<sup>36</sup> Director Tseng concluded the conference by encouraging participants to become members of the American Library Association (ALA) and the International Federation of Library Associations and Institutions (IFLA) and to get involved with committees and to keep informed by attending the annual conferences. The Director emphasized the importance of developing professional skills via active participation in international conferences and getting connected with librarians internationally. She promised that the RDA forums will be repeated again at the National Central Library to assist librarians from both continents in building RDA knowledge together and learning from joint experiences to promote future librarianship in Taiwan.

## Conclusion: Implications for RDA Training

The RDA Training at NCL offered an excellent launching ground for those who prefer a more social approach to skill development and problem solving. Besides formal training programs, catalogers must develop a sufficient grasp of formally presented concepts in order to apply them in the workday context. Informal meetings, such as the cataloging roundtables and special interest groups without a set agenda can help catalogers solve troublesome cataloging problems, such as questionable name authorities, multiple title changes, or several editions or versions of the same item. The webinars or webcasts (live or prerecorded), also provide a fundamental training venue for librarians in continuing education and staff development.

Cataloging is often considered to be a lonely practice. Many catalogers do in fact prefer to work alone, while others prefer consultation and discussion of the various choices they make regarding particular elements in the catalog record. Web-based cataloging services and electronic bulletins (such as those provided by the LC Cataloging Distribution Service, OCLC Support, and the American Library Association's *ALA Connect*) have been invaluable for clarifying confusion about practices and offering professional help, especially for those whose preferred channel of communication is through the community of catalogers in writing.<sup>37</sup>

The core resources found in the RDA Toolkit, Library of Congress,<sup>38</sup> OCLC,<sup>39</sup> IFLA,<sup>40</sup> and FRBR<sup>41</sup> are essential for developing handouts, workbooks, and teaching agendas for attendees.

Moreover, RDA training provided an important starting point of collaboration and personnel exchanges between librarians in Taiwan and the United States. It was a well-planned teaching and learning opportunity of international librarianship from both continents. Several factors contributed to its success, including project planning, workflow development, materials design, active participants, technology use, course building, teaching skills, and the overall coordination and methodology on project management. However, there is still room for further improvement, such as moving past the cultural differences and language barriers in the teaching and learning process. It is hoped that the present case study will open a dialogue with the international metadata community to promote further collaboration and personnel exchanges among libraries and institutions, and to build similar programs and training endeavors in the future.

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## Additional Resources

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## Biography

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