Impact of RDA and its Transforming Cataloguing in the Modern Library System: A Study

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Abstract: The introduction of Resource Description and Access (RDA) has marked a significant transformation in the field of cataloguing, redefining how libraries organize, manage, and provide access to information resources. In this study, find out the structure of RDA, implication of RDA, benefit and point out why RDA after AACR2. This study also explores, the chronological way to point out the implementation of strategies, recommendation (Table 2). The study finds out the challenges faced by libraries, including staff training, inadequate infrastructure, administrative support (Table 2). Also find out the Access Points for religious texts is eliminates confusing abbreviations and enhances accessibility in RDA (Table 1). RDA is focusing on its role in enhancing user discovery, metadata flexibility, and integration with linked data technologies.

Keyword: Cataloguing, RDA, FRBR, Linked Data, Semantic Web, FRAD.

I.   INTRODUCTION

Resource Description & Access (RDA) is a descriptive cataloguing standard that 'provides a set of guidelines and instructions on formulating data to support resource discovery'. RDA both replaces and builds upon AACR2. Tosaka & Park (2013) there is no further developments to the AACR2 have been made since 2005. RDA is cataloguing code set of rules, not meta data schema, not an encoding schema Miller (2011). It is set of rules to perform descriptive cataloguing of digital and traditional information resources. RDA mainly based on FRBR (Functional Requirements for Bibliographic Record), FRAD (Functional Requirements for Authority Data), FRSAD (Functional Requirements for Subject Authority Data) entity relationship model a (RDA Toolkit, 2020). This models provide a flexible frame work for content description of digital resources and emerging database technologies. Chapman (2010) stated RDA through its entity relationship model, helps users interact with information resources more effectively. By supporting the tasks of finding, identifying, and obtaining resources, it ensures that users can navigate bibliographic data in a clear and structured way. RDA designed to replace the AACR

second edition revised by the joint steering committee including ALA, LOC, CILLIP, CCC. RDA issued in 2010 as a part of the RDA Toolkit, a subscription based online product (www.rdatoolkit.org) also available in the loose leaf format. It is designed for everyone, not for Anglo Americans.

➤ *Significance of the Study:*

This study on the impact of RDA (Resource Description and Access) holds substantial significance for multiple stakeholders within the library and information science (LIS) field. By examining the transition from AACR2 to RDA and its ongoing evolution, the research provides critical insights into the current state and future direction of bibliographic control. The study highlights the competencies required for modern cataloguing, such as understanding entity-relationship models (FRBR/FRAD), linked data principles, and the structure of the RDA Toolkit. This is significant because it highlights the need for increased collaboration, shared resource development, and localized training to ensure that the benefits of RDA, specifically global data interoperability, are accessible to all. It reinforces the idea that bibliographic standards are a global public good.

➢ *Objective:*
   The main objective of this study is
- To portray the Resource Description & Access (RDA).
- To depict the Structure of RDA.
- To highlight the point why RDA after AACR2 (not AACR3).
- To investigate the implication of RDA, benefit and challenges.

II.   LITERATURE REVIEW

Hunt (2013) emphasizes that while AACR2 was developed for the card catalogue era, RDA is designed to support digital environments and web-based metadata standards. By being grounded in FRBR, RDA provides a more flexible, user-focused approach, enabling better resource discovery, interoperability, and consistency across different formats and media. Also, highlights that this theoretical foundation allows cataloguers to describe resources in a way that is not only more adaptable to emerging technologies but also more responsive to user needs. Further Chapman (2010) critically examines the limitations of AACR2 in the context of rapidly evolving information resources and highlights the rationale for developing RDA. digital resources, complex formats, and interoperability with metadata standards outside the traditional library environment. Miller (2011) point out that RDA's use of full words instead of abbreviations, its grounding in the FRBR model, and its ability to describe a wider variety of resource types will benefit both cataloguers and reference librarians. Also highlights specific changes, such as in access points for biblical texts and music, demonstrating how these adjustments make bibliographic records more user-friendly and interoperable. Oliver (2010) explanation of RDA and its relationships with existing cataloging models. Tosaka & Park (2013) find out the review mostly concerns key areas of difference between RDA and AACR2, the relationship of the new cataloging code to metadata standards, the impact on encoding standards such as Machine-Readable Cataloging (MARC), end user considerations, and practitioners' views on RDA implementation and training. Moore (2006), Medeiros (2005) and Duszak (2006) stated that the offered initial, generally positive reviews as a new plan was announced to cancel work on AACR3 and create a new standard for resource description and access instead, designed for the digital world. Further, Hillmann, et al. (2007) offered sharp critiques of the initial development of RDA, which they attacked for still being mired in outdated, print-based cataloging practices and failing to develop a new standard that would be relevant for today's web environment. Elrod (2011) RDA represents a paradigm shift in the cataloging community, forcing both practitioners and LIS researchers to come to terms with a new vision of bibliographic control framework for the 21st century.

III.   METHODOLOGY

In this paper, the study adopted a descriptive research approach. To examine the impact of Resource Description and Access (RDA) on cataloguing practices in modern library systems. The research study focuses on various characterized open-ended research literature analysis. In a two table we are describe our four objective. The table 1 is describe the function of AACR2 rules and also the RDA, with a proper citation of it. In table 2 elaborate the RDA adoption, benefit, implementation and challenges in chorological way.

IV.   WHAT IS RDA?

The development of a new cataloguing standard began when the Joint Steering Committee (JSC) decided to create a successor to the Anglo-American Cataloguing Rules, known as AACR3. In December 2004, JSC distributed a full first draft of Part I for public review. The response from the cataloguing community was surprising. While some cataloguers preferred not to change the long-established rules, others felt that the draft did not bring about the level of innovation needed for a modern cataloguing environment. Taking these contrasting views into account, the JSC recognized the need for a more fundamental shift. It was proposed that the term resource should be used to represent all materials, both physical and digital, found in a library or the broader bibliographic universe. This marked a turning point in cataloguing thought. In April 2005, the Committee officially abandoned the title Anglo-American Cataloguing Rules and adopted a new working title, Resource Description and Access (RDA).

RDA emerged as a new and forward-looking standard designed to meet the challenges of the digital age. Rooted in the Functional Requirements for Bibliographic Records (FRBR) model, RDA provides a structured set of cataloguing instructions for describing, identifying, and providing access points for resources. It offers a flexible framework capable of accommodating both traditional print and new digital materials. Furthermore, RDA ensures that bibliographic data can be easily integrated into evolving database structures and remain compatible with existing catalog records. As a comprehensive package of data elements, guidelines, and instructions, RDA facilitates the creation of rich metadata for library and cultural heritage resources, aligning them with international models and supporting the global vision of user focused, linked data applications.

➢ *Structure of RDA*
   RDA is organized into two main parts that reflect its conceptual foundation in the FRBR model.:

- The first part, comprising sections 1 to 4, defines the attributes used to describe each of the FRBR entities such as Work, Expression, Manifestation, and Item.
- The second part, covering sections 5 to 10, focuses on the relationships that made among these entities.

   RDA Consists of
- 10 sections
- With 37 chapters
- And 12 appendices
- Glossary
- Index

Each section of RDA begins with a chapter providing general instructions, followed by detailed guidelines specific to the entities or relationships covered in that section.

- Section 1: Deals with recording attributes of manifestation and item.
- Section 2: Outlines the recording attributes of work and expression.
- Section 3: Provides guidance on recording attributes of person, family, and corporate body.
- Section 4: Focuses on recording attributes of concept, object, event, and place.
- Section 5: Addresses the recording primary relationships between work, expression, manifestation, and item.
- Section 6: Covers recording relationships to persons, families, and corporate bodies associated with a resource.
- Section 7: Explains the method of recording subject relationships.
- Section 8: Describes recording relationships between works, expressions, manifestations, and items.
- Section 9: Details recording relationships between persons, families, and corporate bodies.
- Section 10: Outlines of recording relationships between concepts, objects, events, and places.

➢ *Why adopt RAD in the place AACR3?*

The Anglo-American Cataloguing Rules, Second Edition (AACR2), first published in 1978, served as the cornerstone of bibliographic description for decades. Despite numerous updates over the years, AACR2 remained rooted in principles designed for a card catalogue environment, which limited its ability to address the complexities of digital resources. The International Conference on the Principles and Future Development of AACR, held in Toronto in 1997, brought to light several substantive issues within AACR2. Although subsequent revisions attempted to address these concerns, it soon became evident that incremental changes were insufficient to meet the evolving demands of the digital age.

Recognizing this, in April 2005, the Joint Steering Committee for the Revision of AACR (JSC), along with its parent body, the Committee of Principals (CoP), reassessed their approach after reviewing feedback on the draft of AACR3 Part I. They concluded that a new, more comprehensive standard was necessary, one capable of encompassing both analog and digital resources. This decision marked a pivotal shift toward a new cataloguing framework designed for the modern information landscape. The envisioned standard aimed to provide guidelines and instructions for describing and accessing all forms of resources, ensuring that bibliographic records could be effectively utilized across diverse digital platforms such as the Internet, Web-based OPACs, and emerging online systems. After the study we have to find some specific reason 'why adopt RAD in the place AACR3' describe as in Table 1.

Table 1 Why RDA After AACR2 (Description of AACR2 and RDA)

Aspect	AACR2	RDA	Why RDA after AACR2	Citation
Cataloguing Environment	Designed for the **card catalogue** and print era	Designed for the **digital environment**, online catalogs, and Linked Data	Needed to align cataloguing rules with 21st-century digital and web-based metadata standards	Hunt (2013); Chapman (2010); Dutta & Rahman (2023)
Conceptual Foundation	Rule-based, format-specific	Grounded in **FRBR/FRAD** models (user tasks: find, identify, select, obtain)	Supports user-centric discovery and interoperability	Chapman (2010); Hunt (2013); Miller (2011)
Terminology	"Heading," "Main Entry," "Uniform Title"	"Authorized Access Point," "Preferred Title for a Work," etc.	Modernized terms to align with metadata standards (e.g., MARC, Dublin Core, Linked Data)	Miller (2011); Dutta & Rahman (2023)
Abbreviations	Uses many (e.g., *p.*, *ill.*, *S.l.*, *s.n.*)	Uses full forms (*pages, illustrations, place of publication and name not identified*)	Easier for end users and machines to read and understand	Miller (2011); Dutta & Rahman (2023)
General Material Designator (GMD)	One field: [electronic resource]	Replaced by **Content Type, Media Type, Carrier Type**	Provides precise description of resources across all formats	Hunt (2013); Dutta & Rahman (2023)
Physical Description	Abbreviated (e.g., *xvii, 537 p.*)	Fully spelled out (*xvii, 537 pages*)	Improves clarity and user-friendliness	Miller (2011); Dutta & Rahman (2023)
Rule of Three	Lists first author + *et al.* for >3 authors	Records all authors (optionally "and others")	Ensures accurate attribution and better search ability	Chapman (2010); Dutta & Rahman (2023)

Access Points for Religious Texts	Abbreviated (e.g., *Bible. O.T. Esther*)	Full forms (e.g., *Bible. Esther, Bible. Old Testament*)	Eliminates confusing abbreviations, enhances accessibility	Miller (2011); Dutta & Rahman (2023)
Music & Librettos	Libretto entered under composer	Libretto entered under librettist (with added entry for composer)	Recognizes contribution of creators more fairly	Miller (2011)
Serials	Separate records for print and online	FRBR: links all manifestations of a serial	Allows seamless discovery across formats	Kuhagen & Mering (2013); Dutta & Rahman (2023)
Interoperability	Limited to library catalogues	Designed for **metadata sharing, Linked Data, semantic web**	Extends library data into global information networks	Hunt (2013); Chapman (2010); Kuhagen & Mering (2013)

Table 1 highlighted the why adopt RAD in the place AACR3.Also the shift from AACR2 to RDA highlights a major transformation in cataloguing practices. RDA transforms cataloguing by moving while AACR2 was designed for the print era, RDA is built for digital environments, online catalogues, and Linked Data. AACR2 is rule-based structure but RDA is based on FRBR/FRAD models, making it more user-centric and interoperable. It modernizes terminology, replaces abbreviations with full forms, and introduces content, media, and carrier types instead of the GMD, ensuring clearer and more precise descriptions. RDA also improves authorship representation, eliminates confusing abbreviations in religious texts, fairly recognizes creators of music and librettos, and links different formats of serials under one framework. Most importantly, it extends cataloguing beyond library systems into the global information network, positioning RDA as a flexible and future-ready standard.

> ➤ *RDA Adoption and Implementation Challenges*

Resource Description and Access has emerged as a major bibliographic standard replacing AACR2. Since its official implementation by the Library of Congress and other major institutions in 2013, libraries worldwide have been gradually transitioning to RDA. Adoption and implementation strategies vary depending on library type, scale, and technological readiness. Common approaches include phased staff training, system updates, and alignment with linked data standards. Challenges frequently encountered include resource limitations, lack of training, system incompatibilities, and issues with multilingual or multi-script cataloguing environments. The following table presents a chronological overview of RDA adoption studies across different library contexts, highlighting strategies, challenges, and benefit.

Table 2 RDA Adoption, Implementation, and Challenges (Chronological Order)

Study / Year	*Type of Library / Context*	*RDA Adoption*	*Implementation Strategies / Approaches*	*Outcomes / Benefits*	*Issues / Challenges*	*Recommendations / Lessons Learned*
Cronin (2011)	Academic library, University of Chicago	Full-scale adoption post RDA Test; integrated into daily cataloguing operations	Proactive staff training; policy flexibility; MARC compatibility adjustments	Early alignment with linked data and interoperability; positioned as a model for other institutions	Balancing workflows during testing; system updates; staff comfort with new standards	Continuous staff support and flexible policy-making help manage large-scale adoption
Wacker & Han (2013)	Academic libraries, USA	Comparative implementation in two major libraries; transition from AACR2	Phased training, workshops, peer-to-peer learning; system adjustments for RDA fields	More accurate bibliographic control; smoother transition; staff competence improved	Differences in organizational structure and staff readiness; resource allocation; system limitations	Tailored training and preparation depending on staff readiness and system capacity
Cohen (2016)	Multilingual cataloguing environment, Israel	Partial adoption; localized translation of RDA; selective guideline implementation	Limited professional development; pilot projects for specific resources	Initial steps toward international alignment; identification of multilingual challenges	Multilingual/script challenges; misalignment with local policies; fragmented training; limited national coordination	Develop national-level training; adapt RDA policies to multilingual context

Long (2018)	Large public libraries, USA	Gradual adoption; user-centered cataloguing; integration with existing services	Structured workshops; ILS updates; phased migration of records	More understandable bibliographic records; improved user discovery; interoperability	Scale and staffing limitations; system readiness; resource-intensive transition	Plan adoption in phases; provide detailed training; ensure ILS compatibility
Bargioni (2018)	URBE Network, Italy (consortium of ecclesiastical libraries)	Consortium-wide adoption; shared cataloguing framework; improved standardization	Workshops; shared documentation; system upgrades for RDA fields	Collaboration across libraries; consistent metadata; interoperability with international standards	Coordination across multiple libraries; technical challenges; need for standardization	Collaborative planning; shared documentation and training for all cataloguers
El-Sherbini (2018)	Libraries adopting linked data / BIBFRAME	RDA aligned with BIBFRAME; enhanced interoperability; preparing for semantic web / linked data	Staff training; system readiness; alignment with BIBFRAME principles	Improved data interoperability; readiness for linked data and semantic web applications	System readiness; technical infrastructure; training gaps; preparing for transition from MARC to linked data	Ensure technical infrastructure and staff competence; phased transition; align RDA with BIBFRAME
Panchyshyn, Lambert & McCutcheon (2019)	Public libraries, USA	Gradual adoption after 2013; integration with existing workflows	Staff training programs; phased implementation; system updates; strategic planning for linked data	Improved metadata consistency; alignment with linked data principles; better interoperability	Uneven adoption; resource constraints; lack of training; limited administrative support	Need for structured training, vendor collaboration, and management support to ensure successful adoption
Yeboah, Onyancha & Mhlongo (2025)	University libraries, Ghana	Awareness of RDA; limited adoption; pilot initiatives	Some collaborative partnerships; planning workshops	Increased awareness; foundation for future adoption	Lack of staff training; inadequate infrastructure; limited management support; low readiness	Structured preparatory periods; staff training; build institutional support

In the Table 2 highlighted the adoption, implementation, and challenges of RDA in a chronological order way of research review. The study finds out the adoption of RDA need to proactive staff training, policy flexibility, MARC compatibility adjustments. The common challenges included staff readiness, resource limitations, technical infrastructure gaps, and workflow disruptions during upgradation. while the benefits of improved metadata consistency bibliographic accuracy, user discovery, and greater interoperability, particularly in relation to linked data and BIBFRAME.

V. FINDING

The Following are the important findings of the study

- Restricted by the "rule of three" and AACR2 limited authorship to three names plus "et al.," while RDA allows recording all authors, ensuring accurate attribution and better search retrieval (Table 1).

- AACR2 was designed for the print and card catalogue era, whereas RDA is tailored for the digital, online, and Linked Data environment, making it more relevant for 21st-century libraries (Table 1).

- RDA is grounded in FRBR/FRAD user tasks (find, identify, select, obtain), moving beyond AACR2's rule-based format, thus improving interoperability and user-centric discovery (Table 1).

- RDA eliminates confusing abbreviations (e.g., Bible. O.T. Esther) by using full forms (e.g., Bible. Old Testament. Esther), enhancing accessibility (Table 1).

- RDA is designed for metadata sharing, Linked Data, and the semantic web, extending library data beyond catalogues into global information networks (Table 1).

- The benefit of RDA is improved metadata consistency, alignment with linked data principles, better interoperability (Table 2)

- Across the RDA studies, the most emphasized needs were continuous staff training, phased implementation, vendor

and management support, and strong technical infrastructure (Table 2).

- The outcome of the RDA is collaboration across libraries, consistent metadata, interoperability with international standards (Table 2).

VI. CONCLUSION

The review of studies on RDA adoption demonstrates that while its transition from AACR2 presents challenges, it has become an essential standard for modern cataloguing. Libraries that embraced RDA report significant improvements in metadata consistency, bibliographic accuracy, interoperability, and user discovery, particularly in alignment with linked data and semantic web initiatives (Table 2). The findings emphasize that successful implementation requires phased strategies, continuous professional development, technical readiness, and strong institutional support. Ultimately, RDA is not just a replacement for AACR2 but a transformative framework that positions libraries to remain relevant, user centric, and globally connected in the digital information environment. The study reveals that RDA has successfully addressed the limitations of its predecessor, AACR2, by providing a flexible, media-neutral framework capable of describing the full spectrum of digital and physical resources that populate contemporary hybrid collections. By grounding its structure in the FRBR conceptual model, RDA forces cataloguers to think analytically about the relationships between creators, works, and carriers. This not only improves the precision of bibliographic data but also directly enhances the user's ability to find, identify, select, and obtain resources.

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