# RDA: Resource Description and Access:
# The new standard for metadata and resource discovery in the digital age

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Reading RDA guidelines will greatly benefit the novices. Keeping in mind the main objectives of RDA, which are to *identify* and to *relate* entities, will help remove preconceptions based on how those objectives were technically achieved in the past to suit a completely different working environment.

RDA has a deeply modern and pragmatic approach to resource description and access. RDA is, in fact, a standard for content and does not provide a standard for displaying data as was prescribed in many previous cataloguing codes. In other words, RDA aims to provide instructions on how to identify the data but does not explain how and where to present the identified data, selected and collected according to the guidelines.

This context raises some kind of warning to the readers experts in cataloguing. RDA requires an original approach, a *metanoia*, [1] a

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[1] "Metanoia, a transliteration of the Greek μετάνοια, has been reckoned the greatest word in the New Testament" ("Wikipedia").

profound transformation of the way of conceiving cataloguing. The process of traditional cataloging starts from the description of a publication and of an exemplar; the description, drawn up according to ISBD – International Standard for Bibliographic Description (International Federation Of Library Associations and Institutions 2011) – is the essential information about a resource. In traditional view, cataloguing is equipped with a series of tools allowing a user to search for resources: headings in the card catalog, access points in the electronic catalog. Always in the traditional approach, a later and complementary task to the description of the resource is the task of authority work to record data about the entities responsible for the resource and related resources and even subject terms, using special attributes and qualifications. RDA approach is different, and one could become, perhaps, confused; particularly, when consulting the general *RDA Toolkit* index, one could notice that a part devoted to the description of the resource and of the exemplar – as it appeared in AACR2 (Joint Steering Committee for Revision of AACR and American Library Association 2002, chap. 1–13) and in other codes – seems to be missing. With RDA, one should keep distinct the two aspects of cataloguing that, by tradition, have been treated together: 1) what data is to be recorded; 2) in what form and order this data should occur and be displayed. The new standard answers the first question, but not the second, highlighting that the choice of visualization and presentation of the descriptive data and relationships depends on the technological choices adopted by those who produce the data and, of course, on the context in which this data will be set according to the readers' information needs.

In the first part of the text, guidelines deal with the registration of attributes of an entity (*identify an entity*) and in the second part with relationships that entity may have with other entities (*relate an entity*). To identify and relate an entity are the two fundamental objectives of the RDA. 'Identifying' implies the recording of attributes of an entity, through a process similar to that of creating an authority record for that entity. For this reason, the RDA guidelines

make systematic identification of all types of entities provided by FRBR: persons, families, corporate bodies, works, expressions, manifestations, and items. This systematic procedure increases the granularity of data that, at this point of the process, serves to identify entities, but not to clarify the relationships that exist between them. For example, one can have data about some author and about some work, and at the same time one cannot know that there is a connection (relationship) between those data. This is the reason why the second goal of RDA is to relate the entities on the basis of conceptual and functional connections. Compared to previous codes, the guidelines devote much space to relationships. Providing relationships enables the navigation function of a catalogue, to guide a user to related entities, including data with different type and origin. The navigation function was conceived by Elaine Svenonius and incorporated in ICP (Svenonius 2000; Svenonius 2008).

After we have identified and related the entity, the process of data creation is completed. What today is defined description, tomorrow with RDA will be the result of the visualization of a set of attributes and relationships related to the resource. Furthermore, the set of displayed attributes and relationships will vary depending on the application that will be used to explore the data, and the same data can be used on the fly, or according to necessity, appropriately to the context in which this data is located.

Barbara B. Tillett writes: "RDA is intended to make possible the creation of *well structured* metadata for the resources so that they can be used in any environment, such as: a card catalog, an online catalog, an advanced and interactive research-based web applications"(Tillett 2014, 13).

The presentation and display of data relating to an entity is a subsequent process independent from the registration of its attributes and its relationships. Consequently, the structured description (for example, according to ISBD, the standard that has permeated the bibliographic description of the early 1970's until

nowadays and which characterizes the record of the current catalogs) is, in RDA, only one of many different solutions to assemble and display descriptive attributes. For this reason, ISBD is contained in an appendix (RDA Appendix D), that is, outside the actual text of the RDA guidelines (Bianchini and Guerrini 2009; Escolano Rodrìguez 2012).

This innovative framework marks the substantial, Copernican, difference that guidelines have with the previous cataloging codes: from the centrality of the record one passes to the centrality of the data. With this data, the meaning of which is defined (or registered) in controlled vocabularies managed by a community of experts, it is possible to create products – datasets – for their reuse in any environment.

RDA replaces AACR2, a code in which the terms *Anglo-American* and *cataloging* had a considerable weight. The new standard abandons in its title the geographical reference. It is due to the fact that, although it finds its origins in Anglo-American context, this standard aspires to become a standard with real international connotation. Moreover, the RDA standard removes from its title the term cataloguing, for now almost exceeded, because the aim of the description is no longer the production of a specific tool (a catalog is considered as a set of bibliographic records), but the realization of a service of access and description integrated with other information tools and access to resources.

Therefore, there is no longer a compilation of record, but the definition of data (about a work, an author, etc.), formulated mostly through terms extracted from controlled vocabularies and ontologies. The use of a common language, recognized and shared for data structuring, gives the opportunity to reuse the same data by anyone interested to do it, whether it is a human entity (person interested in using data for purposes and projects although these are different from those for which the data was conceived), or a machine, for all inferential processes that base their logic on

relationships established in vocabularies and ontologies in understandable machine languages.

This concept of reuse of data and, therefore, of interoperability between different systems able to communicate between each other is possible by the adoption of standards and shared vocabularies. This approach is closely related to the philosophy of linked data, but it carries out also the concept of cultural responsibility. Those who manage vocabularies and ontologies technically, semantically, and linguistically play a vital role in the definition of the words and relationships between them. The controlled and semantic terms will be used automatically and, therefore, uncritically by the processes of inference managed by machines. The choices in definitions of new vocabularies and ontologies assume, therefore, a technical dimension and cultural relevance in the process of global communication.

Even the adjective *bibliographical* is no longer appropriate, because, from the point of view of those who carry out a search, the task is to find recorded knowledge or any resource that conveys information, any resource that is the vehicle of intellectual or artistic content on any media and in any form.

The subject of cataloging (or *data recording*, the contemporary name of cataloging) becomes thus any entity of interest to a user. Therefore RDA has the ambition to present itself as a unique code for data recording for resources that can be found: in libraries (manuscripts, books, periodicals, music, maps, movies ...), in archives (institutional documents, personal and family papers, business documentation ...), in museums (works of art, costumes, artifacts and natural objects, aircraft and space vehicles, models ...) and for resources produced and disseminated using digital technologies (e-book, databases, web sites and the digital version of what is collected by libraries, archives, museums, etc.).

The standard will deepen the process of collaboration with archivists and museum professionals who, in the past, developed specific ways

to describe resources of their collections, very different from those developed for libraries. The development of RDA guidelines has taken and will continue to take greater account of these non-library traditions. The makers of RDA are aware that it may totally replace standards and models developed by other communities. Creating metadata is, however, a transverse operation that affects all those who create data and publish it anywhere in any context and subject area: bibliography, publishing, media, public administration, geography, art, archeology, sports, life sciences, music, religion ... This constitutes a crucial aspect for present and future collections, even more in the context of the Semantic Web.

RDA is a flexible and modular standard, so it can also be used for any new resource types that may appear in the universe of recorded memory. Its purpose is to create "a set of guidelines and instructions for the formulation of data allowing the discovery of resources". This point of view is much wider than those offered by the previous codes, because it acquires knowledge gained over the past decades: how to allow a user to easily find a resource, regardless of its type and its place in the library, in other memory institutions, or anywhere?

RDA is, therefore, a universal standard, although it is based on theoretical documents born in the bibliographic field.

RDA focuses on the information needs of users, the information needs of anyone, anywhere, at any time, and contributes to repositioning libraries in the era of the Web as information and documentation services necessary to modern society.

The RDA guidelines are designed for the digital environment and are connected with Web tools, in particular with search engines. The technological aspect of the RDA Toolkit itself becomes an important part of the connection of the RDA instructions to the digital environment, particularly for linked data. By providing terminology and metadata through the RDA vocabularies for elements and

relationships, RDA Toolkit becomes an essential part of the descriptive process for identifying resources. If data provided by a cataloger is neither exactly identified nor uniquely qualified, it can't effectively carry out its functions. In comparison with prior standards, RDA guidelines allow one to create more granular data and, above all, to provide instructions for associating each element to the relevant FRBR entity, showing, also in this case, the close proximity to the FRBR conceptual model. RDA guidelines have a great deal of novelty and in various directions. One novelty is that RDA promotes the integration of catalogs with other information tools. The RDA guidelines, in fact, have adopted the language and logic of the Semantic Web, thus favoring the inclusion of bibliographic agencies in global communication, within which they can play a renewed role as leading protagonists, along with countless other institutions.

Another novelty is RDA's presentation as an international standard, favoring participation of different international actors, with distinct roles regarding description and access to resources: the sharing of data and of work methods is a qualifying aspect in the paradigm of the connected world. The larger the number of those who produce and share data for the description of resources to be reused in different contexts, the higher is the degree of satisfaction of information users' needs (Bianchini 2012).

A unique standard does not mean the loss of richness and special traditions found in national cataloging practices; it depends on the way each implementation is related with the standard. What to expect? Mere passive acceptance or dynamic participation in the evolution of this international standard, beginning with the preparation of its semantic part?

It is hoped that the new standard will be enriched with the editorial participation of a wide community of professionals from all over the world, each bringing the best of its cultural background, in a collaborative process with a global dimension.

A further challenge of the RDA guidelines is training (we could talk almost about gestation) of a new generation of librarians and cultural operators who will be able to guide and assist IT companies in the creation of new tools to support resource description and access. Finally, another strength of RDA is continuous updating of instructions and vocabulary by experts in various disciplines and from various parts of the world, which should be accompanied by the maintenance of existing bibliographic data and the correction of minor errors in the RDA Toolkit.[2]

We can be proud that, with the publication of RDA, the *great cataloging tradition* is taking another historic step that marks its definitive entrance into the digital age.
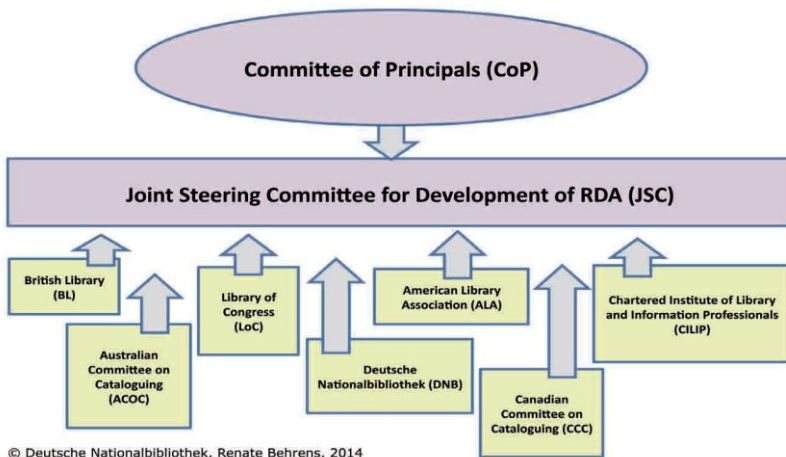
Figure 1: Committee of Principals and Joint Steering Committee for Development of RDA (JSC)

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[2] http://www.rda-jsc.org/2013JSCdocumentoutcomes.html

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ABSTRACT: RDA (Resource Description and Access) is going to promote a great change. In fact, guidelines – rather than rules – are addressed to anyone wishes to describe and make accessible a cultural heritage collection or tout court a collection: librarians, archivists, curators and professionals in any other branch of knowledge. RDA offers a "set of guidelines and instructions to create data for discovery of resources". Guidelines stress four actions – to identify, to relate (from FRBR/FRAD user tasks and ICP), to represent and to discover – and a noun: resource. To identify entities of Group 1 and Group 2 of FRBR; to relate entities of Group 1 and Group 2 of FRBR, by means of relationships. To enable users to represent and discover entities of Group 1 and Group 2 by means of their attributes and relationships. These last two actions are the reason of users' searches, and users are the pinpoint of the process. RDA enables the discovery of recorded knowledge, that is any resource conveying information, any resource transmitting intellectual or artistic content by means of any kind of carrier and media. RDA is a content standard, not a display standard nor an encoding standard: it gives instructions to identify data and does not care about how display or encode data produced by guidelines. RDA requires an original approach, a *metanoia*, a deep change in the way we think about cataloguing. Innovations in RDA are many: it promotes interoperability between catalogs and other search tools, it adopts terminology and concepts of the Semantic Web, it is a global standard, it can be applied by different agencies to create data. RDA is expected to be enriched by wide community of professional, from

all the world, in a collaborative, well-aware, recognized and global perspective. By RDA, the great tradition of cataloguing goes one step further and joins the digital age definitively.

KEYWORDS: RDA; Cataloguing; Semantic Web.