

Redefining Bibliographical Standards

Changes & Practical Implications

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Abstract

This paper can best be described as a report “from the trenches”. Standards for bibliographical data have changed significantly through unprecedented change processes since the turn of the century; change processes that are ongoing. The new rules and standards were developed through a far reaching dialogue process. A new data model, new cataloguing principles and rules were developed as a response to the then new digital environment. The aim was to provide standards that transcend any specific data format and could be applied globally not only in libraries but in any context where bibliographic data is of relevance. Such adaptability entails that each community that implements these new rules and guidelines has to decide how to correlate them with what has been tradition thus far. Much has been written about the deficiencies and benefits of, for example, RDA. Yet, not only the results of the changes provide crucial insights but equally the continuing processes associated with them. The Austrian Library Network will implement RDA by 2016 and is in the middle of a change process in the form of training the trainers; thus receiving immediate feedback on contradictions and unresolved issues. This paper, in a first section, traces the change processes that brought about new standards. It does not purport to be a concise history but aims at delineating the dynamics of change. The second section focuses on issues and questions that arose from the dialogue process in train the trainer sessions organised by the Austrian Library Network when practitioners responded and

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questioned the new rules and standards. These issues are reflected in regard to the respective differences in cataloguing rules, standards and traditions.

Keywords: Bibliographical data, Data model, Standards, Change processes

1 Methodology

This paper applies two methodologies for a critical appraisal of recent developments regarding standards for bibliographical data. A first section traces the history of the change processes by highlighting key moments and decisions to delineate the context from which these new standards originated. Furthermore, it will be possible to highlight key challenges and problems that had to be resolved. The second section, based on discussions in train the trainer sessions, evaluates datasets which followed different standards. The analysis will outline the changes and differences as well as possible redundancies. This is of interest as change entails both gains and losses in bibliographic accuracy. The question is if this is an inevitable by-product of moving across diverse standards, even more so if the new rules aimed at being compatible with a variety of different existing standards.

2 Towards new standards for bibliographical data

The first international principles and standards for recording bibliographic data in the context of cataloguing originated from a conference in Paris in 1961 and became known as the Paris Principles. They were standards applying to card catalogues. Further rules and principles were soon to follow, The *Anglo American Cataloguing Rules* (AACR) in 1967 and the *International Standard Bibliographic Description* (ISBD) in 1971, a standardization of the syntax of recording bibliographic data. *Regeln für die alphabetische Katalogisierung* [rules for alphabetic cataloguing] (RAK) a standard in Germany, Austria and German-speaking Switzerland (D-A-CH) was issued in 1976. They were all limited in scope, focusing on library communities. Data for-

mats were subsequently developed to facilitate exchange of bibliographic data, *Machine-Readable Cataloguing* (MARC) for AACR and *Maschinelles Austauschformat für Bibliotheken* (MAB) for RAK. All these standards were constantly optimized and adapted to changes. This process was very effective for as long as card catalogues were the primary means of recording bibliographic data. Yet, these kinds of catalogues had considerable constraints, e.g. limited space, which determined the structure of standards, the issues discussed and the practice of cataloguing.

An alphabetical catalogue only provides a limited choice of access points, such as persons, corporate body or title. Only in rare cases were both title and author recorded as entries for a publication. In case of co-authorship only the title was chosen as the main entry and only the first author received an added entry. The main entry was the place in the index, where the full bibliographic description was stored and that was referred to from other access points. The decision what was to receive the main entry became paramount given the scarcity of possible entries. The only purpose of data such as year of publication, publisher or edition was to enable the user to distinguish and identify a publication once the record had been located in the catalogue. Another crucial element were rules regarding the format of the heading, 'Tolkien, J.R.R.' would place the card in one location and 'Tolkien, J[ohn] R[onald] R[euell]' in another. Rules were provided to guarantee uniformity of headings. The index of the holdings was built based on the headings.

The increasing significance of digital environments brought new challenges. *Online Public Access Catalogues* (OPAC) provided far more options than a card catalogue. The recorded data itself is seemingly not organized. The index is generated by means of an algorithm and it is possible, in theory to index almost everything. Now, for the first time, it was possible to combine data elements of bibliographic description for search, such as author and year of publication, as new data formats separated data elements by allocating specific fields/codes for each element. Entries were no longer a matter of debate, access points became the crucial issue. Change in data formats gave cause for new problems. With AACR, for example, it was not possible to record the content independently of the carrier which became a necessity as non-book materials had to be recorded. Similar issues occurred with RAK. It soon became evident that AACR and RAK had reached their limits of adaptability.

A study group instituted by the *International Federation of Library Associations and Institutions* (IFLA) examined the recording of bibliographic data

following the paradigm of Entity-Relationship-Models (ERM). *Functional Requirements for Bibliographic Records* (FRBR), published for the first time in 1998, is today the data model for bibliographic data. Both what the user is interested in and which tasks he performs is the focal point of FRBR. FRBR identified four main user tasks: find, identify, select, obtain. Bibliographic records should enable the user to complete these tasks. The perceived interests of the user led to the definition of three groups of entities, each with unique properties by which they can be described, and the relations between these entities:

The first group comprises the products of intellectual or artistic endeavour that are named or described in bibliographic records: work, expression, manifestation, and item. The second group comprises those entities responsible for the intellectual or artistic content [...]: person and corporate body. The third group comprises an additional set of entities that serve as the subjects of intellectual or artistic endeavour: concept, object, event, and place. (FRBR 2008: 13)

The entities of group one, work, expression, manifestation, item, are of special relevance to the development of new standards as will be shown in the following paragraphs. It can be assumed that soon practitioners around the globe who implement rules based on FRBR will have instilled that “work is realized through expression which is embodied in manifestation which is exemplified by item” (FRBR 2008: 14). FRBR, by modelling the process of an author’s idea to the final product, provided a new way of thinking about bibliographical data and laid the foundation for the change to new rules and standards.

Towards the end of the 20th century the constituencies of AACR, Library Associations and National Libraries from the US, Canada, Great Britain and Australia, expressed dissatisfaction with the latest evolution of AACR, AACR2; not only was it unsuitable for a digital environment, inconsistencies originating from numerous additions and updates to AACR2 posed a major problem. The content of AACR was curated by a *Committee of Principals* (CoP) and a *Joint Steering Committee* (JSC). The JSC was tasked to conduct a wide ranging reorganization of AACR2 which begun in 1999. This was to lead to the change process that resulted in new rules and standards.

The JSC did not confine its work to a simple adaptation to new conditions and the purging of inconsistencies. A more sustainable approach was chosen by examining first the underlying principles of AACR2. The group also mapped AACR2 as an ERM, bringing a completely new perspective to understanding cataloguing rules and translating cataloguing rules in a concep-

tual model that is common in many other disciplines. A long term strategy was formulated, “the role of AACR in a changing information environment” (JSC Meeting 10/2001) being a focal point. One key issue in devising AACR3 was the restructuring of AACR2, as the current structure was not suitable to the requirements of a digital environment. The structure of the ISBD was chosen, it being a standard that all communities held in common, as a guideline for the structure of AACR3 after much debate. FRBR was at this time of interest both in regard to its concept and most importantly in regard to its terminology as it was felt that AACR3 vocabulary should harmonize with FRBR terminology. JSC sought to ensure to eliminate as much friction as possible by establishing communications with the industry.

With such substantial changes in progress it was no surprise that also the *Paris Principles* would come under scrutiny. A meeting was held in 2003 that gathered cataloguing experts in Frankfurt to discuss cataloguing principles and standards. This led to a six year process with annual meetings in different regions. Practitioners were tasked to measure their practices against *Paris Principles* and to comment on the draft of new principles. This approach allowed for the integration of more people than the drafting by a committee and the option for responses. Each successive venue did not work on the original draft but on the draft as amended and changed by the previous regional meeting. Following the regional meetings it took another two years until 2009 to formulate the final draft of what is now the *International Cataloguing Principles* (ICP). The development of ICP was closely monitored by JSC so as to avoid inconsistencies and contradictions.

The working title for the adaptation of AACR2 was in 2004 *AACR3: Resource Description and Access* (RDA) (JSC 2004: 3), AACR3 was later omitted. A draft of the first section of AACR3 was submitted to the constituencies for review in 2004. Following devastating responses the prospect of AACR3 was abandoned in 2005 as amendments or rearrangement could not satisfy what the constituencies expected.

The rules should be based on principles; they should cover all types of materials; they should be applicable to, and operate in an online Web-based environment; they should be compatible with other standards for resource description and retrieval; and, they should be easy to use and interpret. There is an expectation that the rules will be used world-wide, and will be used as a resource beyond the library community to facilitate metadata interoperability and reduce overall costs. (JSC Meeting 04/2005)

What followed was an unprecedented change process the goal of which was “a new standard for resource description and access, designed for a digital environment” (JSC Meeting 04/2005). The resolve to venture into unknown territory was quite catalytic. A project management system was instituted; a prospectus of RDA was quickly drafted so that everyone involved had a picture of what was in development; relations with the constituencies were made a priority and exchange was facilitated by using the homepage of JSC for information on developments and drafts of the new standards. JSC went global by organizing 20 presentations of RDA at various locations. By initiating a far reaching dialogue process the constituencies had a strong voice in the development of RDA. The circle of stakeholders itself was redefined:

Major stakeholders for the new edition include not only the JSC constituencies [...], but also library administrators, system developers, metadata communities, MARC format developers, and international programs [...]. (JSC Meeting 04/2005)

As soon as the development of RDA begun, a provisional structure was drawn up consisting of three parts, mandatory data elements were defined and drafting of part I was initiated. Work continued throughout 2006 as a process of continuous refinement, the structure was revised; the mandatory data elements were defined in more detail thereby clarifying the use of key terminology. Exchange with representatives of MARC21, the *Dublin Core Metadata Initiative* (DCMI), *Institute of Electrical and Electronics Engineers Learning Object Metadata* (IEEE-LOM) and *Online Information Exchange* (ONIX) among others, an exchange that was to continue throughout the development of RDA and beyond, led to an agreed framework with ONIX, mapping of RDA to MARC 21 and most importantly Scope and Structure of RDA that originated in talks with DCMI and IEEE-LOM. RDA had now three core documents as its foundation: the *Strategic Plan, Objectives and Principles* and *Scope and Structure* (JSC Working Documents). These documents were publically accessible through the JSC-website. The objectives and principles are grouped in two sections: *objectives and principles for the design of RDA* and *functionality of records produced using RDA*. The objectives for the design of RDA are characterized by 9 keywords: comprehensiveness, consistency, clarity, rationality, currency, compatibility, adaptability, ease and efficiency of use and format. With these keywords user needs (consistency, clarity, rationality, ease and efficiency of use, comprehensiveness) are taken into consideration as well as interoperability (currency, compatibility, adaptability, format). These objectives are complemented with

principles that are focused on: generalization, specificity, non-redundancy, terminology and reference structure. The second section of the objectives and principles expresses in its title its close relationship with FRBR by speaking of functionality of bibliographic records. This section also incorporates the general principles of ICP. “The IFLA *Statement of International Cataloguing Principles* informs the cataloguing principles throughout the RDA” (JSC Objectives 2009: 3). One of the priorities for the coming years is to “make RDA an internationally recognised standard” (RDA Governance Review: 1).

JSC established four working groups for the drafting of the content, thus relinquishing complete control of this process, and an outreach group to ensure that RDA was to be as connected both with its constituencies but also any other concerned or relevant parties as possible, for example, with other library institutions involved in defining rules for bibliographic data such as the *German National Library* (DNB).

A draft of the first section was issued in 2007 and the responses, also from France, Germany, Spain, Sweden and Norway, thereon led to a complete overhaul of the structure of RDA. FRBR, as had been demanded by some responses, became the data model and structuring principle. A very basic structure was thus devised, one part on “recording attributes of each FRBR entity” and a second part on “recording relationships between these entities” (JSC 2007: 3), whereof each section was also related to one FRBR’s user tasks, find, identify, select and obtain. It was a more flexible structure that did not impose any specific database structure. It would be easy to amend and add to it and was regarded to be more congruent with an object-oriented or relational paradigm. A meeting on data models with DCMI was held in London which led to the institution of a joint task group. Mapping, in order to identify both consistencies and discrepancies, was another key activity, RDA to FRBR, RDA to DC and DC to RDA. Documents spoke now not only of bibliographical data but also metadata became part of the terminology. 2008 was dedicated to issuing the first draft of RDA. Until then only sections had been made public for review. Over 900 responses from the constituencies had been received for a draft of sections 2–4 and 9. The DCMI/RDA task group embedded RDA even further in the wider context of metadata by registering RDA data element sets and RDA controlled vocabulary in the *National Science Digital Library Metadata Registry*. *Metadata Object Description Schema* (MODS)/*Metadata Authority Description Schema* (MADS) volunteered to map it to RDA. The annual report had to address the only mistake thus far. Releasing the first draft to the public had been

rushed, resulting in a delayed unrevised faulty draft only in pdf format. As they admitted it had caused damage to the credibility of the entire RDA process. It also had an impact on the review of the first draft. Only one year later, after frenzied work, RDA was published in 2009.

The DNB decided in 2001 to discontinue the RAK-WB (RAK for academic libraries) and to introduce AACR in D-A-CH. This decision was taken two years after work on the third edition of AACR had begun. While AACR3 and later RDA were in development RAK-WB was still applied in cataloguing. RDA will be the standard for recording bibliographic data from the first of January 2016. It was also decided to replace MAB2 with MARC21 as the format for data exchange between library networks. Since 2013 MARC21 has replaced MAB2. The aim was to facilitate the international exchange of bibliographical data. The challenges are far greater than in the Anglo-American context as there is in some significant aspects continuity with AACR. Those recording bibliographic data will not only have to adapt to a new way of perceiving bibliographic data, but also to a standard that is governed by a completely different rationale, derived from FRBR, AACR and MARC. It is possible to tailor some aspects to current practices, as RDA was conceived to be adaptable to the needs of different communities, through policy statements, for example for D-A-CH. The adaptation of RDA is still ongoing. It is a process that bears similarities with the development of RDA and the ICP in as much as it involves the practitioners. Throughout D-A-CH 'Train the Trainer' programs are currently implemented. The aim is not only to educate but also to receive feedback on the current status of RDA and policy statements and their applicability to the recording of bibliographical data. In Austria training the trainers has begun in late 2014. Every two month a one day instructional unit is dedicated to learn about different aspects of RDA and to implement RDA. This unit, given the number of trainers, is repeated over three days. It can be said that, after three units, the benefits of this approach are invaluable. It fosters the communication between practitioners as each unit the participants vary; one learns from the experience and the issues raised by those present. It is also empowering as our input does not come after all the rules have been set, but influences how RDA will be applied and implemented not only in Austria but in some matters in D-A-CH. It is to be hoped that those who still have to learn the new rules and standards will equally benefit.

3 Findings of a study on issues raised in train the trainer sessions in Austria

The following section is based on a study resulted from issues raised in train the trainer sessions in Austria organized by the Austrian Library Network. First by analyzing and comparing bibliographical records which were recorded using RAK-WB and AACR to show continuities and discontinuities with RDA, as well as RDA. The letters of J. R. R. Tolkien have been chosen to exemplify the findings regarding the first part. The item in question was published in 1981 by Houghton Mifflin in Boston. Entries and access points and the content carrier problem have been chosen to illustrate key findings of the study. They have been chosen as they were occasioned by changes in digital environments. This section concludes with a few choice examples illustrating details specific to the implementation of RDA in D-A-CH. Records were taken from the *Library of Congress* (LOC), AACR2 and MARC21, and the *Bayrischer Bibliotheksverbund* [Bavarian Library Network] (BVB), RAK-WB and MAB2. For the sake of brevity code samples can be found on GitHub¹.

Entries and access points

FRBR defined ‘find’ as the first user task. Findability in card catalogues was determined by the choice of entry for a publication. The Paris Principles stated: “The catalogue should contain at least one entry for each book catalogued” (Statement of Principles: 3). Under very specific circumstances allowance was made for more than one entry. The uniform name of the author served in most cases as the main entry. In RAK-WB and AACR an editor also received an added entry. Collaborators are simply omitted in RAK-WB. According to AACR the names of collaborators are recorded as in the case of Tolkien’s letters Christopher Tolkien received an added entry. This is also reflected in the statement of responsibility [see GitHub].

Digital environments allow for a flexible approach to finding bibliographic records as a variety of characteristics of a record can serve as an access point to the complete record. In terms of space there are almost no limits as to what can be recorded. Still, it would be most inefficient to record all bibliographic data available. It is for this reason that the ICP introduce suffi-

¹ <https://github.com/SchuhStefan/ISI/tree/master/Data>

ciency and economy as important guiding principles. The choice of access points was for this reason of great importance in developing RDA. The matter was resolved in a most pragmatic way by prescribing a minimum of one access point for each resource. In the case of Tolkien's letters an access point for Tolkien would suffice. The choice of more access points is left to the cataloguing communities, although RDA makes a recommendation in favor of more access points. This rule in RDA illustrates a contradiction inherent in ICP. ICP propagates both user needs and economy as objectives. The cataloguer has to record only one person. It is then a question as to consider user needs or efficiency in deciding if more than one person is added. This example shows how decisions in the practice of recording bibliographic data are decisive in what information the user has at his disposal.

Many authors can be referred to by different forms of their name, e.g. an abbreviated middle name. RAK and ACCR demand that a reference to the full name is to be created. This led to the creation of authority files. The *Functional Requirements for Authority Data* (FRAD), which have FRBR as their foundation, provides the conceptual frame work for such data. The introduction of authority records before RDA ensured that replacing entries with access points was comparatively easy regarding persons. Authority files also facilitate the consistency of headings both within and beyond recording communities. Authority records in D-A-CH are preserved in the *Gemeinsame Normdatei* (GND) (Shared Authority File), curated by the DNB.

The information stored in the GND is a collaborative effort. One can find forms of names which one would be hard pressed to find in another way and which can all be used as access points; for example the Japanese form of Tolkien. RDA, ultimately, has also the recording of relations between persons, such as familial relations, as an objective. This would add further value to authority records. This is already in part realized in the GND.

RDA prescribes not only the linking of entities in regard to persons but also concerning corporate bodies, subject headings and work titles. Collaboration with other metadata communities, such as DCMI, and the publication of authority data as linked open data will facilitate open access to these data.

Content, Media and Carrier Type

Content type refers to, for example, text or image; media type refers to the means by which to access the content: carrier type refers to what the information is contained in. RDA in contrast to AACR and RAK provides a defini-

tion of content, media and carrier type when providing rules for group one entities, work, expression, manifestation and item:

Content type is a categorization reflecting the fundamental form of communication in which the content is expressed and the human sense through which it is intended to be perceived. (RDA 6.9.1.1)

Media type is a categorization reflecting the general type of intermediation device required to view, play, run, etc., the content of a resource. (RDA 3.2.1.1)

Carrier type is a categorization reflecting the format of the storage medium and housing of a carrier in combination with the type of intermediation device required to view, play, run, etc., the content of a resource. (RDA 3.3.1.1)

Media and carrier type are properties of manifestations whereas content type is the property of an expression. So the expression of a work, as for example the original of Tolkien's letters in English, can have the content type *text* independently of the media type. Different media types on the other hand can have the content type text. The most common method to record text would be a book which has *unmediated* as media type, as no intermediating device is needed to access the text. A microfilm too can contain text; its media type would be *microform*.

The example of carrier type illustrates the limits of interoperability. RDA is a content standard; carrier type is an essential element that cannot be omitted. Mapping to other standards as, for example, ISBD is in this case not possible as ISBD has nothing corresponding to carrier type. The matter was discussed in JSC meetings and it was decided to not resolve the matter.

New categories 060, 061, 062 were added in *Aleph Sequentiell* (ASEQ), the current data format in Austria, in order to be able to record data about content, media and carrier type. The encoding, which was adapted from MARC21 as RDA does not provide encoding, is predefined so as to avoid errors, to simplify the process of recording bibliographic data and aid in the transition from RAK-WB to RDA. The media type resembles what is described in RAK-WB and AACR2 as *general material designation* (GMD). Yet, a closer look at RAK-WB exemplifies why RDA has a more promising approach. GMD in RAK-WB was insufficient and rules for special materials, for example music, were developed which resolved this issue but gave cause to contradictions with rules for other special materials. AACR avoided issuing rules for special materials and incorporated them instead.

RAK-WB was intended for print media; therefore GMD was at first of no relevance. Deciding which rules for special materials were to be applied was a rather complicated matter. Video-DVDs, for example, can either be re-

corded according to specific rules for non-book materials or for music. If the recording is a recital of a musical piece, it is music, whereas feature films would be recorded as non-book material. RDA simplifies the matter significantly as all video DVDs have the media type *video* independent of their content. To distinguish content, media and carrier type serves the convenience of the user, as it offers more versatile search options. RDA aimed at describing media types in a most general and technology independent way. It is to be seen how sustainable the approach is given rapid developments in this area. A study at the Graz University Library examined the possibilities of retrospective enrichment of datasets recorded using RAK with CMC. According to this study, it should be possible to get CMC out of some datasets but not all, especially not for NBMs (see Fritz et al. 2013).

Gains and Losses from Moving from RAK to RDA for D-A-CH

In the case a publishing house is named after a person RAK-WB prescribed the omission of the first name to make the most of the space on offer on a catalogue card. In the case of Tolkien's letters the publisher was recorded as Mifflin, Houghton was taken to be the first name. Yet, the publishing house is named after Houghton and Mifflin. It is an error that although not directly occasioned by RAK-WB was facilitated by it. With databases space is no longer a concern, RDA therefore prescribes that the publishing house be recorded as it is presented in the item [see GitHub].

Recording practice in D-A-CH dictates that the country, as in the country of publication, and language codes, the language in which the item has been written or recorded, is recorded although RAK-WB as well as AACR did not prescribe it. These data provide the user with further search criteria and in general a further opportunity to sort the data. Anglo-American practices do not record these data. AACR too makes no mention of recording language or country codes which are therefore never recorded. The data format thus provides opportunities to record more data. RDA prescribes these elements.

Multipart-publications are a much discussed topic in recording bibliographical data. RDA established three ways to describe such resources: comprehensive, analytical, and hierarchical, which is the combination of comprehensive description and analytical description. Comprehensive description and analytical description originate from AACR whereas hierarchical description is the predominant practice when RAK-WB rules are applied. RDA as the successor to AACR2 focuses on comprehensive and analytical descriptions. The hierarchical option is included but not in sufficient detail; this is

when simplicity for the sake of flexibility transgresses into vagueness and ambiguity. The rather general rules and standards of RDA are complemented with policy statements which allow cataloguing communities to specify how RDA is to be applied in the context of different traditions of recording bibliographical data. D-A-CH develop policy statements together to guarantee consistency and interoperability of recorded data. These statements are of great value in regard to multipart documents.

The industry providing the software also influences the implementation of RDA. The *Austrian Library Association*, for example, still uses ALEPH, an Integrated Library System. ALEPH has ASEQ as its data format. Data fields are therefore added for compliance with RDA and MARC21, but not omitted for backward compatibility. This can lead to redundancies in the case of the year of publication. Place, publisher and year of publication are recorded in one field with subfields in MARC21. ASEQ assigned each a data field. A new data field has been added in ASEQ to reflect the MARC21 practice and to facilitate data exchange. This would make the previous ASEQ data fields redundant. Yet, for the sake of continuity the field for year of publication had to be kept. Practitioners have now to insert it twice or even thrice if the copyright year is added as well.

The D-A-CH policy statements do not only serve to adapt to RDA but also to preserve standards and principles from RAK-WB as RDA only prescribes the necessary minimum. For D-A-CH the change to what is now RDA was intended to foster interoperability in an international context, yet there are instances where RDA, equally intended to foster interoperability, falls short of standards now applied in D-A-CH. It actually, in this case, counteracts internationalization and interoperability. One such example concerns the matter of names of places. It is now standard for D-A-CH practitioners to use the names in their native tongue. With RDA the language of the agency producing the record determines the language for the names of places.

4 Conclusion

Analyzing and evaluating the reports of JSC it is evident that once this process had been set in motion all stakeholders were fully committed to it. Great

care and effort was given to integrating the constituencies and their insight and concerns. To develop new standards and to implement them is a daring venture. Yet, one of the great merits of RDA is that it ensured overall interoperability with other standards. To simply adapt AACR2 to new requirements or developing new standards focusing on cataloguing of bibliographic data could have led to the isolation of the library community. It was a risk to focus on both the development of new content and simultaneously relating this content and its framework to other standards. Ultimately it is this, together with the reduction of the structure to a basic form that will contribute to the sustainability of RDA. The history of the development of RDA as well as the transition from AACR or RAK to RDA illustrates that moving across diverse standards is, in the best case, a continuous, dynamic and complex process. One might achieve a polished and succinct end product with a top-down approach that is with a small dedicated group refining and polishing it. Yet, the disadvantages that such rules and standards are confined to the dialogue within this group; often only part of such dialogues are recorded and only one generation later the rationale and logic can be difficult to trace. If one is to achieve sustainability an integrative approach is the most promising; the greater the involvement of the communities of practitioners and stakeholders from a diverse background the greater the chance of succeeding in developing a lasting standard that truly enables and furthers the recording and exchange of bibliographic data across traditions and communities. It might not be as polished and appear at times contradictory in itself. Those chosen as trainers in Austria are experiencing that issues they are raising are taken into consideration in the crafting of policy statements both for D-A-CH and Austria specifically; the change process thus is one of partial co-ownership and empowerment.

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