RDA in Europe: Implementation and Perception Of the New Cataloguing Standard

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ABSTRACT

This dissertation explored the implementation and perception of the Resource Description and Access (RDA) cataloguing standard among European national institutions. In doing that, it referred to the development and implementation of RDA among the Anglo-American libraries where the roots of this new standard lie. Most of the libraries that have implemented RDA so far are from English-speaking countries. However, RDA was conceived to serve as an international standard and efforts were put towards its internationalisation. Initially, the uptake has been slower in non-Anglophone institutions but in recent years, there has been an increasing interest in RDA across different languages and cultures.

In Europe, most libraries have shown interest in RDA and its potential implementation but few case studies have emerged about the implementation of RDA among European institutions. This is undoubtedly due in part to the few organisations that have actually undertaken such a project as well as the long time that it takes to complete one. Thus, the dissertation examined the spread and application of RDA throughout Europe both by looking at the available literature and by conducting interviews with professionals at European national libraries. It compared the adoption and use of the new standard by non-English-speaking institutions to those in an Anglo-American setting and examined the undergoing internationalisation of RDA in terms of its implementation.

The results show little difference in the implementation issues and attitudes encountered by Anglo-American and European institutions. There is less evidence of collaborative implementation in Europe than in the United States. Then again, European institutions demonstrate a higher level of involvement and interest in the development of RDA. Within Europe, there is also a stronger desire to work towards RDA interoperability and alignment with the cultural heritage sector. Finally, the European implementation drives forward the internationalisation of RDA by actively seeking solutions to the issues in the new standard arising from the cultural and linguistic diversity.

The results aim to contribute to a better understanding of the reasons for and expected benefits of implementing RDA in Europe. Furthermore, the results highlight the issues faced by the European institutions and the unique perspectives that emerge from implementing RDA in different languages and amid different cultures.

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1. Introduction

This dissertation explores the implementation and perception of the Resource Description and Access (RDA) cataloguing standard among European national institutions that have adopted the standard, are in the process of adopting it or have demonstrated interest. In doing that, it refers to the development and implementation of the standard among the Anglo-American institutions where the roots of it lie. Following is a short introduction of the development of RDA describing the path and efforts undertaken to transform it into a widely-acceptable international standard.

1.1. *A new way forward*

The change in information structures in the past thirty years, mainly influenced by new technologies and the online environment, has had an effect on almost all aspects of life, not the least of which were knowledge institutions and libraries. The new possibilities that technology presents for the organisation and utilisation of data have initiated a wide array of reforms and rethinking of well-recognised structures and rules.

Cataloguing had been one domain where changing user expectations and data structures, as in the way resources are defined, had necessitated fundamental changes aimed at reflecting current demands and practices. Such changes came from the International Federation of Library Associations and Institutions' (IFLA) conceptual model Functional Requirements for Bibliographic Records (FRBR), published in 1998, which redefined the creation of bibliographic records and introduced the entity-relationship model in the bibliographic description (IFLA, 1998). That model provided a basis for reviewing the Anglo-American Cataloguing Rules at the time (AACR2) through the prism of the FRBR concepts (Riva and Oliver, 2012). The AACR2 was already under revision to accommodate the fast changes happening in data formats and access as well as the spreading internationalisation of the rules. It was eventually agreed that to align AACR2 with the FRBR model and thus adapt the rules to a new way of delivery of bibliographic information would require more than a revision and instead a new set of rules should be developed (Riva and Oliver, 2012; Tillett, 2016).

The Joint Steering Committee (JSC) which was responsible for the revisions and development of the AACR2 started work on developing those new rules – AACR3. The Committee consisted of representatives of various national institutions concerned with bibliographic control from the United States, Canada, Australia and the United Kingdom. After the presentation of the initial draft and input from the international cataloguing community a new structure and plan were developed and what started as AACR3 turned into RDA: Resource Description and Access. Both the change of name and direction were

meant to reflect and encourage the intended international applicability and international input in developing the new rules (Tillett, 2016). Although the standard was first devised as a replacement for the Anglo-American rules, over the years, various international institutions have become involved in its development and implementation. A pivotal step towards internationalisation was considered the joining of the German National Library (*Deutsche Nationalbibliothek* - DNB) as part of the JSC in 2012 (Tillett, 2013).

1.2. RDA implementation

RDA was adopted by the Library of Congress (LC) in 2013 after a testing phase among various U.S. libraries. The aim of the test was to determine whether the new rules were ready and suitable for an actual application. After a revision of the test results, the LC announced its intention to implement RDA and was shortly followed by the other institutions involved in the development of the standard – the national libraries of the UK, Canada and Australia – as well as various libraries involved in the testing phase. The German-speaking libraries committed shortly after to a full implementation of RDA.

Various libraries across the world have continued to implement RDA ever since LC's announcement about adopting the new standard. Naturally, these have been mainly national institutions and academic libraries, the former as leading authorities in their countries, the latter being traditionally more keen on innovation and development. The number of libraries which are considering adopting the new standard or planning an implementation has progressively grown over the past few years. This is evidenced both by the growing literature in the U.S. on the matter as well as the larger number of affirmative action regarding RDA implementation by European institutions presented at the last European RDA Interest Group (EURIG) meeting (EURIG Seminar, 2016) in comparison to the 2013 EURIG survey (Gryspeerdt, 2013). The wide support that RDA has received in Europe is arguably due to the formation of EURIG which was formally founded in 2011 – almost two years before the Library of Congress' implementation of RDA. This comes as evidence of the vested interest that European organisations have in RDA and its development. Most of the European national libraries are members of the group and devoted to collaboration with their international colleagues when it comes to issues with RDA and RDA implementation. EURIG provides a platform to exchange best practices and share concerns and solutions regarding RDA application (EURIG Documents, 2014). It also aims to become the European body with direct involvement in the development and internationalisation of RDA (EURIG Seminar, 2016). At present, 39 organisations from 26 countries are members of EURIG (EURIG Members, 2016) and if one is to judge by that wide scope, there is already a setting for a European-wide adoption of RDA.

1.3. Problem statement

The dissertation answers the following research questions:

- What is the perception of RDA among European countries and what are their reasons for adopting RDA?
- Are there any differences in the implementation process between Anglo-American and European institutions?
  - How does translation feature in the implementation process?
- How much do institutions collaborate on RDA and how does that collaboration influence the implementation decision and process?

The process of implementing RDA, especially in a non-Anglophone setting, could seem like a daunting task, requiring many considerations, a lot of which concern language and cultural issues. For the past few years, few case studies have emerged about the implementation of RDA at European institutions. This is undoubtedly due in part to the few organisations that have actually undertaken such a project as well as the long time that it takes to complete one. What has been written is in parts concerned with the translation and linguistic challenges and, it could be argued, this is quite justifiable considering that one of the participants in the formal RDA testing phase in the U.S. noted that "it was like learning a new language" (Bloss, 2011 in Mitchell, 2013, p. 76) and the general feeling among those test libraries was that it "was largely an exercise in concept and vocabulary familiarization" (Mitchell, 2013, p.76).

This dissertation examines the spread and application of RDA throughout Europe. The objectives are to compare the adoption and use of the standard by non-English-speaking institutions to those in an Anglo-American setting as well as to examine the undergoing internationalisation of RDA in terms of its implementation. Further, it looks into European libraries with various cataloguing traditions and their reasons for either considering or choosing to implement RDA. In doing so, the dissertation examines the decision-making process of the libraries. It aims to form a broad picture of the attitude towards RDA in Europe.

The analysis of European institutions concentrates on national libraries which provides a limited comparison to Anglophone institutions. However, this approach was both based on allowing a manageable scale of the research and the fact that some of the European national libraries act as the bibliographic agencies for their countries. Thus, any decisions made on the national level would apply to other libraries in the respective country. Furthermore, there is little evidence of other types of European libraries considering RDA. This dissertation further focuses on the differences between RDA and previously applied

rules and the challenges that stemmed from those as well as the training methods to overcome these challenges. An important consideration for many non-Anglophone countries is the translation of RDA. The dissertation examines translation issues and solutions as well as any reservation towards the rules that might arise from that.

Another aspect relates to making RDA an international standard and the various interested parties working to develop it towards this goal. This international cooperation on development among some of the first institutions to adopt RDA has transferred itself to operational issues surrounding RDA and its implementation. Thus, the dissertation examines, if this trend has continued among more recent implementers of RDA and if collaboration or possibility for collaboration has any influence on the implementation decision and process. Lastly, this dissertation examines in what way FRBR features in institutions' decision or implementation processes.

1.4.   Expected outcomes

RDA is on a definite path of internationalisation which in part has been influenced by the European libraries which have already implemented it or are planning to implement. It is therefore of interest to provide an overview of what else is driving European institutions to consider the implementation of RDA and what lessons have been learned by institutions that have already implemented. The results could further contribute to a better understanding of the need to implement RDA as well as serve as a showcase for the various circumstances under which different organisations have implemented RDA. This research could further the development of a set of recommendations for the transition to the new standard in the context of the old rules and ensuing challenges, based on best practices and solutions to issues encountered by other organisations.

In conclusion, the above research objectives aim to form a comprehensive picture of the state of RDA implementation and application throughout Europe as well as provide a basic framework of reference for institutions moving toward an implementation decision.

2. Literature Review

2.1.   RDA development

In the past few years, interest in the internationalisation of RDA has grown and as mentioned before, there has been a burst of implementation efforts among the European countries. Gordon Dunsire, the Chair of the RDA Steering Committee (formerly Joint Steering Committee), has noted that since the completion of implementation among the institutions which were closely involved in the development of RDA, the focus has moved towards "the future management and development" of the new standard (Dunsire, 2016b,

p. 311). This might explain why there have been more libraries considering implementation in the past couple of years, as resources and help have become more available by the first implementers. It has also been evidenced that institutions are looking to adopt RDA because of its international implications and it has been suggested that the standard is therefore becoming an international one with local application rather than a national one with international application (Dunsire, 2016b). The internationalisation of RDA has been part of the standard's design from the beginning (Tillett, 2013), therefore, it is not surprising that efforts towards that goal have been ongoing. Most recently, the RDA Board has related two of its strategic goals for the development of RDA to be the international diffusion of the standard (Tillett, 2016). It has also announced plans for a new governing structure that would include representatives from around the world based on different regions (Berney-Edwards, 2016). Europe is one of these regions and discussions are in progress for a possible transition of EURIG to become the organisational body through which the European representatives on the RDA Board will be chosen (EURIG Seminar, 2016). This move is also in line with the ground design of RDA which was conceived as an open standard, meaning that any party could contribute towards its development (Danskin, 2013a). Other efforts towards the development of RDA include the call for a better alignment with the Museum and Archives sector by the German-speaking community (Aliverti and Behrens, 2016b) as well as better support for the description of rare materials (Caro Martin and Prada, 2016; Fabian, 2016). The relations between RDA and the FRBR Library Reference Model (FRBR-LRM) are also being explored (Dunsire, 2016a; Sprochi, 2016). Although most of the literature expresses positive attitudes about RDA and its development (Bianchini and Guerrini, 2016), there are also criticisms. In a recent essay, Gorman (2016) maintains that there are few differences between AACR2 and RDA-based records and that development of the new standard was too expensive to justify the minimal change it had on bibliographic description. However, regardless of the widely documented issues within RDA, the more institutions choose to implement, the more institutions are inclined to follow (Sanchez, 2011; Turner, 2014).

2.2. *The implementation in the United States*

The implementation of RDA has naturally received most attention in the United States, partly because of the provenance of RDA and partly because of the U.S. RDA Test which went on for six months in 2010. The objective of the test was to try out in practice the new standard and determine its feasibility for becoming the new cataloguing standard at the Library of Congress and consequently, at other libraries across the country (Loesch, 2013). This testing phase was the incentive for many libraries that participated to start thinking about implementing RDA. When the Library of Congress announced in 2011 that it

would adopt RDA in 2013 (Loesch, 2013; Mitchell, 2013), many of the test participants have decided to follow. Consequently, interest in RDA during that period has increased and institutions were publishing case studies about their RDA experience. Most notably, in 2011, a special issue of *Cataloging and Classification Quarterly (CCQ)* brought together case studies about libraries' experiences during the testing period in the U.S. In his analysis of these articles, Mitchell (2013) observed four common themes that encompassed the issues encountered by test participants when applying RDA, and summarised them as "efficacy, RDA similarity to other standards, technical opportunities and challenges, and organizational implications" (p.74). The issues that came forth in this analysis revealed a common criticism of the structure of the RDA Toolkit and the unclear language of the instructions. It was also commonly noted that there was a lot of unfamiliar vocabulary and terminology. Given all these changes, it was noted that the end result in actuality was not much different in RDA than AACR2, which was appealing to some while frustrating to others. Mitchell's analysis further highlighted the universal agreement that MARC encoding is not adequate for RDA as it does not allow for the optimum utilisation of the new standard. Conclusions were also drawn regarding training where an approach which involved as many cataloguers as possible in order to foster a collaborative learning environment was preferred. Recommendations were also made for the training to include familiarisation with FRBR concepts and vocabulary. In general, Mitchell (2013) concluded that test participants had some reservations towards and certain frustration about RDA but they were also optimistic about the standard's future implementation.

2.2.1.   Perceived issues

Since the testing phase, several more articles have appeared, detailing the RDA implementation experience. Examining these, it became apparent that RDA implementers have come across and vocalised similar issues to those test participants from Mitchell's analysis. In the surveyed implementation case studies, the problematic areas of RDA were given a fair amount of attention. The thematic analysis performed on those articles as part of the study for this dissertation revealed that the various issues and concerns around RDA constituted the second-most touched upon topic after the topic of training. Resonating with Mitchell's analysis, various implementers have stated that they do not believe RDA could reach full potential if it continues to be implemented with the current information library systems, which are not able to reflect the Entity-Relationship (E-R) model on which RDA is based. Thus, it has been argued, since the systems are not able to make use of the RDA relationships, no benefits could be realised for the end users from using RDA which also makes it more difficult to justify the RDA implementation to the

library administration (Park and Tosaka, 2015; Wacker and Han, 2013; Cronin, 2012). Even greater seems to be the frustration with the MARC format, which is seen as restrictive to the underlying FRBR concepts of RDA (Jin and Sandberg, 2013). Numerous articles appeal for the development of a new encoding format, questioning the validity of RDA if it continues to be used with MARC21. This also relates to the lack of difference between AACR2 and RDA records. While some of it has been attributed to the intended continuity between the two codes and during training was considered a positive thing by some cataloguers (Park and Tosaka, 2015; Maurer and Panchyshyn, 2014), it was also noted that the flat structure of MARC does not allow for a truly different product, expressing the hope that this was due to the still early stages of RDA (Hanford, 2014).

Another major issue when implementing RDA was the perceived lack of clarity in the standard. A study conducted among RDA implementers by Park and Tosaka (2015) revealed similar frustration about the confusing instructions as was noted in the U.S. Test phase a few years before. To that effect, it has been noted that examples within the instructions could be improved and expanded upon (Cronin, 2012). The rewording of the standard was considered a major point to be addressed before the implementation of RDA at the Library of Congress, along with a better functionality for the RDA Toolkit (Morris and Wiggins, 2016). The Toolkit navigation has been perceived as challenging given the fundamental differences between the FRBR-structured RDA and the AACR2 texts, especially for cataloguers just becoming familiar with RDA (Jin and Sandberg, 2013; Hanford, 2014). It has been noted that training on how to use and navigate the Toolkit would be beneficial (Kuhagen, 2011).

Most of the other issues mentioned related to the practical cataloguing and challenges the cataloguers encountered during record production. Most commonly, the increased time for authority record production due to the addition of more required elements has been noted (Park and Tosaka, 2015). It has been also stated, however, that this was a welcome change as it made records more precise and detailed (Cronin, 2012). Additionally, the increased emphasis on the cataloguer's judgement has been mentioned by many, with some finding it hard to adapt to the less-constricted application of options and alternatives that are in contradiction to the traditionally sought consistency of treatment (Maurer and Panchyshyn, 2014; Cronin, 2012). A lot of attention has also been given to the removal of the General Material Designation (GMD) and its replacement with the content, carrier and media type elements. Most of it relates to the lack of a solution for displaying these elements' fields in the public catalogue and the doubt that even if they were, they would be useful to the end users (Cronin, 2012; Wacker and Han, 2013; Hanford, 2014). Other instances of practical cataloguing issues include the removal of abbreviations, seen

by most as a good thing, although there have been concerns that it would increase the workload; concerns about applying the instructions about conventional collective titles; issues with the construction of uniform titles; and issues with cataloguing continuing resources (Wacker and Han, 2013; Turner, 2014; Young and Bross, 2011). An interesting summarisation is Park and Tosaka's (2015) observation that there is a gap between RDA's FRBR-based principles and daily cataloguing practice. Some implementers have mentioned that it has been a challenge to get used to the FRBR-based concepts and structures (Hanford, 2014; Jin and Sandberg, 2013), while all implementers have had some kind of FRBR concept familiarisation as part of the training. It is perhaps feasible to think that some of the cataloguing practice issues come from the yet unfamiliar structures and the adjustment period for getting used to applying the RDA instructions. Finally, as mentioned above in Mitchell's (2013) analysis, as a result of the iterated issues, reported attitudes towards RDA are quite mixed, with the most common descriptors being 'frustration' and 'excitement'.

As a last point, when it comes to the issues surrounding RDA, a quote from Cronin (2012) very aptly describes that there might be not such a clear cut rule about what works and what does not in RDA:

> The lines get blurry and it is important to realize when something presents an issue with RDA, an issue with MARC, or an issue that reflects choices we have made in configuring the local systems. (p.642)

2.2.2.   Reasons for implementing RDA

Most of the examined case studies provided some kind of elaboration for their reasons to implement RDA. For a few, the decision was straightforward, coming from their participation in the U.S. Test and feeling that postponing the implementation would make void the work already put in RDA during the testing (Cronin, 2012; Hanford, 2014). Others felt that it would be more sensible to wait for the Library of Congress' decision in order to follow through with the implementation. All of them, however, agreed that an implementation by the national libraries is a strong incentive for their institutions to follow suit. That, along with the assertion that copy cataloguing would become more and more RDA compliant and the libraries should follow suit with the new developments, reflects the similar responses that Park and Tosaka (2015) received in their more recent survey.

Some case studies iterated more detailed reasoning behind the implementation, such as the use of relationship designators to pave the way towards FRBRised catalogues and

linked data (Maurer and Panchyshyn, 2014; Jin and Sandberg, 2014; Wu et al., 2016) as well as a general improvement of metadata structures (Cronin, 2012). Surprisingly, from the surveyed case studies, there were few similarities with the Library of Congress' reasons to adopt RDA, the common one being better linking between resources. The LC also put emphasis on the international sharing of data and better suitability to digital resources (Morris and Wiggins, 2016). These differences could be explained by LC's national library status.

2.2.3.   RDA implementation training

Among the surveyed articles, most of the attention was given to the training process for the RDA implementation. Both developers and implementers of RDA have stressed the importance of training and many efforts have gone towards developing comprehensive and adequate training materials (Kuhagen, 2011; Cronin, 2012). In her review of the state of RDA training preparation, Sanner (2012) demonstrated the importance the profession puts as a whole on training, and specifically on RDA training, drawing parallels with the AACR2 training requirements. She further cites a study that projects that an average of 30 training hours would be needed for RDA – something that demonstrates dedication to complete a thorough education (Sanchez, 2011 in Sanner, 2012, p.216). In Park and Tosaka's (2015) more recent study among RDA implementers, training has also been deemed to be of highest importance to the implementation process.

The surveyed articles talk about different aspects of training but most of them mention practical training as opposed to theoretical, the Library of Congress training materials as a basis for their own training, and the utilisation of some kind of an online tool. In most cases, training was prepared and delivered by senior cataloguers or management, also ascertained by Park and Tosaka (2015) in their survey. In a few cases, there was a mention of special groups formed to manage the training (Wacker and Han, 2013; Wu et al., 2016; Morris and Wiggins, 2016). Most implementers have emphasised the need to have training sessions about basic concepts and principles. One opinion was that training in general should only be about the basic principles instead of cataloguing details, such as punctuation and capitalisation (Turner, 2014), while most felt that the basic training should also focus on changes from and differences between AACR2 and RDA (Cronin, 2012; Wacker and Han, 2013; Kuhagen, 2011). A few implementers mentioned the importance of including FRBR concepts and theory in the training materials. Cronin (2012) considered an introduction to FRBR as a minimum requirement for and optimally preceding the RDA training. RDA Toolkit training was included in the basic training at some institutions, while others only mentioned the Toolkit in the context of becoming familiar with it.

The libraries which have participated in the U.S. Test and have subsequently decided to implement noted the benefits of learning about and following the RDA development years before the actual implementation, which had given them a good grounding when the actual cataloguing began. Both Maurer and Panchyshyn and Cronin (2012) emphasised this point, the former by citing the Library of Congress recommendation on that and concluding: "It is not possible to train too much for RDA" (Maurer and Panchyshyn, 2014, p.270). In the same vein, some implementers mentioned continuing training and the availability of platforms where questions could be asked post-implementation (Hanford, 2014; Jin and Sandberg, 2014). The Library of Congress is offering eLearning "refreshers" to enhance the learning experience of RDA (Morris and Wiggins, 2016, p.220).

Most implementers stressed the value of practical training, which mostly included creating records either from scratch or by converting AACR2 records to RDA (Cronin, 2012). One study revealed that implementers find a 'hands-on' training the most important and useful approach, some going as far as to say that it is "impossible" to learn RDA in theory only (Park and Tosaka, 2015, p.259). It was also mentioned that looking at practical examples helped when learning how to create RDA records (Hanford, 2014). Some mentioned that deciding on policy was a good way to learn more about RDA (Maurer and Panchyshyn, 2014). However, all articles featured a training approach that was a mix of theoretical and practical learning.

Most implementers have found it beneficial to have some kind of an online tool, whether a wiki or a website, where they could upload training documents and provide a platform for questions and discussions. It was considered an effective learning tool, especially because people can look at it in their own time (Park and Tosaka, 2015). Moreover, it was considered particularly useful for cataloguers who might feel isolated in the training process and thus being part of a virtual learning group can help them with the learning (Maurer and Panchyshyn, 2014). Some institutions would have web pages specific to training, whereas others would use them for all kind of materials, including policy documents and useful links. Some mentioned that apart from training, the online platforms were used to share information about RDA and the implementation progress (Wacker and Han, 2013; Wu et al., 2016). Some of the institutions shared these platforms openly for the benefit of other libraries (Jin and Sandberg, 2014; Wu et al., 2016). Most notably, the Library of Congress has made its training materials available online ever since the training for the U.S. RDA Test (Kuhagen, 2011; Morris and Wiggins, 2016). Not surprisingly, most of the implementers said that their training materials were based on those by the LC, and one library had used exclusively the online LC training sessions (Wacker and Han, 2013). The institutions which were part of the Name Authority

Cooperative programme (NACO) were required to go through the training that LC had devised but they all felt it was very useful and for some, it was the incentive to continue using the LC training materials (Turner, 2014; Wacker and Han, 2013).

Finally, most articles mentioned the time or resources invested in training in varying degree of preciseness. Some mentioned the number of sessions, while others mentioned how many hours of training sessions they had. In general, these would amount to around ten hours but training has also been said to be a continuing process (Cronin, 2012). Participants of Park and Tosaka's (2015) study estimated, apart from the training sessions, that they have invested between 100 and 450 hours in their personal training. At the end, only a few institutions felt that they could have done more with training and these were the early implementers (Cronin, 2012; Kuhagen, 2011), so it could be assumed that following institutions felt more successful because of the more information available.

2.2.4. RDA implementation process

It would be difficult to identify common themes in the implementation process. As Wacker and Han (2013) concluded, implementing RDA constitutes many variables and depends largely on the organisational structure and culture. There are, however, certain common aspects that were part of the process for most institutions. For one, a lot of attention was dedicated to the creation of policies to go with the new instructions. The Library of Congress approached this by reviewing its AACR2 guidelines – LCRI – and reworking them to reflect RDA, thus creating the Library of Congress Policy Statement (LCPS). It also determined the LC core elements, which include the RDA core elements and any additional elements deemed to provide a basic level of description and thus mandatory in an LC record (Morris and Wiggins, 2016). The process at other libraries usually involved reviewing the LCPS and then either basing their own policies on the LC's or adopting the LC policy altogether (Wacker and Han, 2013). Some, however, developed their own guidelines and went through the process of deciding which elements to add to the RDA core elements. For some libraries, the creation of the policy was a process which involved all cataloguers (Cronin, 2012), while for others there were special working groups who addressed this (Wu et al., 2016). The main issues when creating the policies had to do with the many options and alternatives, calling for the cataloguer's judgement, as well as with guidelines about copy cataloguing. The latter especially was perceived as becoming a more complicated issue because of the expectation that it would entail cataloguing according to two different codes – AACR2 and RDA – for a while yet (Morris and Wiggins, 2014; Cronin, 2012).

The second most commonly mentioned aspect was the configuration of the Integrated Library System (ILS) to accommodate RDA records. Libraries cautioned about the necessity to discuss changes with their vendors and the costs such changes might incur. Most commonly cited was the addition of the 33X fields for the content, carrier and media type elements, and some mentioned the different fields for the publication statement (Turner, 2014; Morris and Panchyshyn, 2014).

A few case studies mentioned their decisions regarding hybrid records, with only two institutions deciding to perform a hybridisation project (Panchyshyn and Park, 2015; Wu et al, 2016). A few other aspects mentioned were the priority given to the RDA NACO training and implementation, due to it being required for authority records creation, and the positive influence that had on the subsequent bibliographic implementation (Wacker and Han, 2013); the process of gradually transitioning to RDA, by giving cataloguers plenty of time to adjust to the change without setting deadlines (Hanford, 2014); and the formation of specialised working groups to work on different aspects of the implementation (Morris and Wiggins, 2016).

2.2.5.   Collaboration on RDA

A topic that was touched upon in some of the case studies was that of collaborative work. Although there was some mention of working collaboratively between different cataloguing departments in the library (Morris and Wiggins, 2013; Jin and Sandberg, 2014), most of the focus was on cooperation between the different institutions and the wide support cataloguers can receive when working with other institutions. The benefits of collaborating on the implementation work had been recognised earlier as an opportunity to develop consistent and shareable policy documentation among libraries (Oliver, 2010 in Maurer and Panchyshyn, 2014). Most notably, many of the early adopters have either made their documentation publically available or have set up training seminars with the hope that it would benefit other libraries (Jin and Sandberg, 2014; Hanford, 2014; Cronin, 2012). Most work in that regard has been done by the Library of Congress, which has organised training and presentation days not only for U.S. adopters but has been actively working to familiarise libraries from all over the world with RDA. Some of the examples cited include Chile, Mexico, Sweden, the Czech Republic, Italy and Germany (Morris and Wiggins, 2016, p.214). In general, all implementers felt that working collaboratively on RDA could only enhance the experience and also help with the successful implementation of RDA. Additionally, it could drive the library community to work further on developing new structures and formats that make use of the linked data model and new technologies (Cronin, 2012). Echoing that sentiment was an argument by Young who thought that the

collaborative learning experience of RDA could lead to the formation of "communities of practice" (Young, 2012, pp.191-192) that would eventually create models of professional practice among the librarian profession.

Finally, it was concluded that the development of RDA is still an ongoing process and that it might remain such for a while (Cronin, 2012) and that the implementation of RDA alone is not enough to bring the libraries into the linked data environment but that other developments in formats, metadata structures and systems infrastructure need to take place as well (Wu et al., 2016).

2.2.6.   Conclusion

The reports on RDA implementation in the United States centre on the need for a very good preparation and training in the RDA and FRBR concepts, with 'hands-on' training considered of utmost importance. Despite the many discussions and papers questioning the feasibility of the new standard, implementers are mostly optimistic about its future application and development, even if at times feeling frustrated with the changes. However, the biggest issues are about the unsuitability of the current MARC format and the outdated information systems structures, and most implementers express optimism about changing these structures which would allow for the development of better metadata structures. The value of collaboration and participation in a global community of cataloguers was mentioned by most and seen as the way forward to further developments by some. Implementing institutions are happy to share their experiences, documentation and training materials openly, and thus there is already a growing body of available resources.

2.3.   *International implementation of RDA*

RDA has received a lot of attention and has been adopted by a number of institutions in the United States, and some of that is due to the U.S. RDA Test and the wide resonance it had throughout the country. It did not stop there, however, since there were many international parties interested in the outcome of the test. For one, RDA is jointly published by institutions in three countries – the American Library Association (ALA) in the U.S., the Canadian Federation of Library Associations (CFLA, formerly CLA) in Canada and the Chartered Institute of Library and Information Professionals (CILIP) in the UK. The developing body of RDA – RDA Steering Committee (RSC, formerly JSC) - is constituted by representatives from five countries – the United States, the United Kingdom, Australia, Canada and Germany, the last one joining in 2012 (RDA RSC, 2016; Tillet, 2016). During the development of RDA, the JSC advised with and accepted input from institutions all

around the world that were interested in a new version of AACR2 or a new code altogether (Delsey, 2016; Tillet, 2016). Following the U.S. Test and the Library of Congress' decision to implement RDA, many countries around the world started paying closer attention and considering implementation as well. Thus, some research and case studies have emerged from international institutions around the same time that case studies were appearing in the United States.

Countries that have traditionally used AACR2 were naturally keener to adopt RDA. Three case studies with an Anglo-American cataloguing tradition from around the world show little difference in the implementation process. The National Library Board of Singapore (NLB), the National Library of Israel (NLI) and the RMIT University Library in Australia all decided to implement RDA shortly after its adoption by the LC (Choi et al., 2014; Goldsmith and Adler, 2014; Parent, 2014). Coming from an Anglo-speaking tradition and/or having used AACR2, all three institutions' decisions seemed to follow naturally. For RMIT it was a matter of when RDA was implemented and they chose to do it sooner rather than later, following the National Library of Australia implementation (Parent, 2014). For Singapore and Israel, the reasons were continuing interoperability with Anglo-American records, increased international cooperation and the expected benefits to a future linked data structure (Goldsmith and Adler, 2014; Choi et al., 2014). Training was an important part at all three institutions and although all had devised their own training, it was based on the already available material. When creating RDA policies, the LCPS were consulted and some policy decisions were based on LC's. The conceptual model behind FRBR as well as the structure of the RDA text and Toolkit were challenging to the cataloguers, and it was also felt that practical training and examples were more beneficial. Exercising cataloguer's judgement was mentioned as an area of concern at all three institutions (Parent, 2014; Goldsmith and Adler, 2014; Choi et al., 2014). At NLB, the implementation process also included a trial phase where test records were created and issues reviewed. An interesting comment is that despite the abundancy of available guidance on RDA, the cataloguers still struggled with certain practical issues of cataloguing (Choi et al., 2014). Such issues also appeared at RMIT and related to the GMD and publication statement changes. To address these issues and aid the training process, RMIT adopted a peer review approach to the records created with RDA, which benefitted the overall implementation process (Parent, 2014). The NLI needed to address some further specifics, since although cataloguing is done in English, the resources are catalogued in Hebrew, or in some cases in Arabic or Russian, which means cataloguing essentially in three scripts. The implementers mentioned the need for specific instructions, as well as translation of the new RDA terminology and certain terms in the three languages mentioned above to facilitate the

learning process. In doing that, the NLI produced the first translations of RDA terminology in Hebrew, Arabic and Russian (Goldsmith and Adler, 2014).

Other libraries which did not have Anglo-American-based cataloguing traditions had also shown interest in RDA because of its focus on internationalisation and flexibility. The Chinese, Malaysian, Philippine, Iranian and Brazilian cataloguing communities have all performed different levels of examination of the suitability of RDA to their countries' cataloguing traditions (Luo et al., 2014; Mansor and Ramdzan, 2014; Acedera, 2014; Pazooki, 2014; Mey et al., 2014). Of these, the national libraries in Malaysia and the Philippines have been most actively seeking for implementation solutions which has led to subsequent implementation, while in Brazil RDA was considered unsuitable to the cataloguing tradition (Mansor and Ramdzan, 2014; Acedera, 2014; RDA Toolkit, 2016; Mey et al., 2014). Chinese scholars report the greatest amount of study of RDA. In fact, a Chinese translation of RDA is available (RDA in Translation, 2014) and the Shanghai Library is reported to apply RDA to its Western language resources (Luo et al., 2014). However, the applicability of RDA to the Chinese cataloguing tradition is still in question. Libraries in China already catalogue Western resources according to rules based on the International Standard Bibliographic Description (ISBD) and AACR2 but for Chinese resources there are special cataloguing rules. Thus, a revision of these rules and their adaptation to RDA is more feasible than adopting RDA fully. Furthermore, it is mentioned that a testing period would be desirable to determine the feasibility of RDA in China. Other concerns expressed by the Chinese cataloguers include the complicated language, the novelty of the FRBR concepts, the lack of examples based on MARC and the challenge of providing consistency facing the many alternatives in RDA (Luo et al, 2014) - all points that resonate with the similar concerns of U.S. testers and implementers. RDA has also been translated into Spanish by a Colombian publisher with the cooperation of Latin American and Spanish experts (Garcia, 2014). This Spanish version has been implemented at the national bibliographical agency of Mexico and bibliographical records have been converted to RDA (Mejia et al., 2014).

A final case study details the implementation of RDA in Canada. As one of the developers of RDA, Canada's cataloguing tradition and implementation experiences do not differ much from the U.S. (Cross et al., 2014). However, there are certain points of distinction that make this case study valuable to the international context. As a bilingual country, Canada was implementing RDA in two languages – English and French. For that reason, a French translation of RDA was produced, making the Canadian implementation the first adoption of RDA in another language. The case study, furthermore, compared the implementation process in English- and French-speaking Canada and that showed some

major differences. English Canada did not differ much from their American colleagues – institutions prepared for implementation by training using already available materials and taking LC's guidelines under advisement. For French Canada, training activities were organised centrally - although that was not purposefully sought - by the translation team, owing to their acquired knowledge and experience of RDA during the translation process. Thus, that team and their institution became the authoritative body on RDA training and implementation. Moreover, it was noted that the delay in RDA's publication and decision about implementation, provided the opportunity for the French translation to be completed on time for implementing RDA at the same time through all of Canada. However, French Canada did not have the benefit of having information and training materials available in French or the opportunity to study the text of the Toolkit in French years before the actual implementation, as did English Canada owing to the plentiful English materials by Anglophone institutions already in existence. As they could not rely on existing materials, all French training materials and documentation had to be created by the French-speaking cataloguing community. Finally, for the French-cataloging community, the biggest challenge was considered to be bringing RDA from the community of experts to that of cataloguers, which was related to the U.S. RDA Test's similar issue (Cross et al., 2014).

In conclusion, it is evident that RDA has been implemented among countries where there was already a tradition of following the Anglo-American rules. However, there is still a pronounced interest from other countries, with various cataloguing traditions, that recognise the potential RDA has for being an international standard, facilitating international cooperation and exchange.

2.4.   RDA implementation in Europe

The development and implementation of RDA have been the subjects of many discussions and presentations throughout the years, and it is reasonable to claim that the topic of RDA has been examined throughout the four corners of the world. A consistent online search on the open web could unravel an abundancy of materials related to RDA. However, chasing down these sources is time-consuming and at times a confusing endeavour. As it was noted in the study of the U.S. RDA Test:

> RDA information includes range of formal and informal communication methods and intersects a number of library communities. This can make it difficult to keep track of changes and advances in RDA and can certainly make it challenging to perform an analysis of the literature (Mitchell, 2013, p.72).

Since then, there have certainly appeared more formal sources on the adoption of RDA in the United States as the previous section showed. However, it could be argued that at the time of writing of this dissertation, sources about RDA's European adoption present a similar issue. A thorough examination of these sources is further made complicated by the variety of languages in which those are published. However, below is an attempt to give a representation of the state of RDA implementation and discussion in Europe by first reviewing the academic papers and case studies.

2.4.1.   The RDA case studies in Europe

The literature on adoption of RDA in Europe is somewhat constrained in the sense that a lot of it is, naturally, in the national language of the adopting institutions and thus it does not allow for a European-wide overview by one researcher. There are some articles about Europe that have been featured in journal issues dealing with the international perspective on RDA, and as such are not strictly viewed in the European context. RDA has been found to feature most prominently among the UK and Italian academic research, although it is conceivable that a lot of nation-specific research was beyond the researcher's access. Most Italian literature on RDA has been found in the *JLIS.it* journal which has published 32 articles on RDA since 2011, half of them in the latest issue from 2016, 7.2, which was dedicated entirely to RDA. Although there are some international contributors, most of those articles are in Italian. The majority of articles discuss the development and applicability of RDA as an international standard, and some draw comparison with other international initiatives in cataloguing (Butto, 2016; Rodriguez, 2016). One of the more practically-oriented studies is a comparison between the Italian cataloguing rules – *Regole italiane di catalogazione* (REICAT), published in 2009 and based on FRBR – and RDA. The author of that study pointed to the better potential that RDA provided for the description of resources in a linked data environment. The conclusion was that the two codes represent two different views of cataloguing organisation – REICAT is made for traditional bibliographic description, while RDA is oriented towards an element description to fit the semantic web (Forassiepi, 2015). A brief article about the Italian translation of RDA points to the desire of the Italian cataloguing community to study and analyse the new standard and its underlying principles. It also emphasises the flexibility of RDA and its adaptability to local practices. The translation is also seen as an opportunity for the Italian cataloguing community to participate in the international development of RDA (Guerrini, 2015). A further article presents a new ILS capable of accommodating the Entity-Relationship model and thus enabling a seamless bibliographic description according to RDA standards (Lambroni, 2015).

The rest of the literature on RDA implementation mostly stems from the UK where libraries have been following the development of the new standard since at least 2010. A lot of what has been written is concerned with the practical aspects of implementing RDA. Most of the publications in that regard come from CILIP, which apart from being one of the three publishers of RDA (RDA RSC, 2016) is also, together with the British Library, representing the UK on the RSC (CILIP-BL Committee on RDA, 2016). Most prominently, CILIP's Cataloguing and Indexing Group (CIG) dedicated their 173rd issue of the *Catalogue and Index* periodical on the implementation of RDA among UK libraries. Five academic libraries contributed case studies of their implementation experience, along with the case study from the British Library and a case study from BDS, the bibliographic records supplier for the British Library. Along these, a survey among UK libraries was presented, looking at implementation plans and reasons. The respondents were mainly academic libraries but the survey did highlight a high rate of implementations or planned implementations (Danskin, 2013c). It also revealed the main reason for implementing RDA to be interoperability, resonating with some of the case studies stating that the implementation of RDA has enabled the continued sharing and downloading of records from other institutions (Danskin, 2013c; Kluttz, 2013; O'Reilly, 2013). A universal observation was that community support, especially within the CIG, has been of great benefit, while at the same time the documentation and training materials of the British Library have been a first point of reference (O'Reilly, 2013; Wright, 2013). Mostly, practical issues of cataloguing were discussed, with most commonly mentioned being the changes brought by the content, carrier and media fields and the addition of relationship designators (Hallett, 2013; Clifford and Wilson, 2013). Interestingly, FRBR was considered essential for the training in RDA in all but one of the libraries, where the emphasis was on the MARC-RDA structures to reflect a more practical approach due to time constraints (O'Reilly, 2013). An article about the training needs in the UK revealed similar attitudes regarding the CILIP CIG as training facilitator and the British Library documentation as the most used and useful one (Welsh et al., 2012). Another article exploring RDA attitudes among serials cataloguers talked about the inevitability of adopting RDA while expressing concerns with issues surrounding serials cataloguing in RDA (Aburrow-Jones, 2013). A brief overview of the implementation process at the National Library of Scotland (NLS) talked about the completed training in NACO for authority work and the preparation for the bibliographic training by examining LC and CILIP-BL materials (Nicholson, 2013).

There is not much more literature from other European countries. Most notable are the articles detailing the implementation of RDA in the German-speaking countries. This project is in itself unique because it involved the joint implementation of RDA among

three countries and three library networks, being to date the only RDA project with such an international scope (Behrens et al., 2014). All three countries have somewhat decentralised cataloguing systems and although in Germany and Austria the RAK (*Regeln für die alphabetische Katalogisierung*) rules were followed, different libraries were using different formats. In Switzerland, rules were generally AACR2-based but could vary among libraries. However, there was still close cooperation on policy because of the Committee for Library Standards, which was also the reason that such an undertaking was possible. The project is indeed still ongoing as RDA is being developed, the Toolkit updated and policy decisions affecting the German-speaking cataloguing community made on an annual basis (Behrens et al., 2016). The project is led by the German National Library (DNB), which had decided to implement RDA in 2008 after first considering to change the traditional German rules (RAK) to AACR2 and a MARC21 format (Behrens et al., 2014; Caesar and Eichel, 2009). The DNB also became a member of the developing body of RDA – the RSC – in 2012. Eventually, the decision to change to RDA was taken by the whole German-speaking community in order to facilitate the sharing of international records data and thus reduce cost in the long term. A full translation was also produced and made available for free for a limited period on the RDA Toolkit website (Behrens et al., 2014; Behrens et al., 2016). For Switzerland, which is a multilingual country and uses a variety of cataloguing standards, the implications of the RDA implementation are viewed as a step toward a more unified catalogue among the Swiss libraries, achieving a better national sharing of data (Aliverti and Müller, 2013). For those reasons, when the Working Group was deciding on policy statements, it aimed to reflect not only the German-speaking cataloguing community's needs but also to be in line with the decisions taken by the other RSC countries (Behrens et al., 2014). After the policy, which is called D-A-CH (an acronym of the countries' names) ARW, was developed, a test phase along with a training process began and continued for two years until 2015 when RDA cataloguing started. The implementation process had certain singularities, such as the need to develop instructions for using RDA in different data formats, since some libraries use the German data format MAB instead of MARC21. Other technical changes mentioned include the addition of relationship designators and the content, carrier and media field. The training process, which was considered a main part of the project, consisted of seminars on basic concepts and continued with advance training that dealt with the cataloguing of specific resources (Behrens et al., 2016). The case studies also put an emphasis on the development of RDA for other cultural institutions, which has been considered to be insufficient. Therefore, the German-speaking community is looking into aligning RDA more closely with the rules in

the Archives and Museums sector and recommends a development of RDA implementation scenarios for the cultural heritage sector (Behrens et al., 2014; Behrens et al., 2016).

Another comprehensive case study from Europe is that of the National Library of Latvia (NLL) which began an implementation project in 2013. This is the first European implementation that reflects the experience of a national library which is also the centralised cataloguing body for the country, meaning that a decision of the National Library is applied on a national level. Latvian cataloguing has been done according to AACR2, which was translated in 2005, so it was a matter of continuity to adopt RDA. It was also perceived that RDA would be more beneficial for the cataloguing of digital resources as well as the international data exchange. The NLL followed the development of RDA and began its formal training as early as 2010 by sending experts to learn about RDA both in the United States and Germany. The training programme was eventually based on the LC training materials and consisted of theoretical and practical seminars. One of the biggest challenges was the translation, which was considered too expensive to be realised in full and thus, it was decided that only terms and core terminology will be translated. This was, on the one hand, helped by the already existing AACR2 translation but on the other, there were many changes in terms between the two standards which translation needed to be thought through carefully. There were also specific issues, such as the translation of relator terms for persons where the gender form had to be taken into account. Other issues included the description of e-book formats which was eventually resolved through consultation with other European colleagues. In general, the case study reflected the desire of the NLL for international cooperation and the dedication to work alongside colleagues from other European institutions on issues of the RDA implementation (Goldberga et al., 2014).

There are some more articles from the rest of Europe, most of which although not directly concerned with the RDA implementation, refer to plans and decisions made by their institutions. Most recently in 2016, a special issue of *Cataloging and Classification Quarterly* about rare materials cataloguing, included articles from Spain, Portugal and Bavaria in Germany that also touched upon RDA and its applicability to rare materials (Caro Martin and Prada, 2016; Silva et al., 2016; Fabian, 2016). The articles, however, also had some more general observations on RDA cataloguing. Fabian pointed out that the development of RDA has evolved to be "a continuous exchange of ideas" which could be used as a basis for cooperative work when developing other kinds of international library standards (Fabian, 2016, p.339). Other articles that could give a broader context to this research include an examination of the awareness of RDA of academic libraries in Turkey (Atilgan et al., 2014) and an overview of the current cataloguing rules in Slovenia, where

the translation and study of RDA were viewed as very important. That article also proclaimed a wait-and-see approach based on the reasoning that RDA would only be fully beneficial to the library if more international institutions are following the standard (Kanic, 2014).

In conclusion, the literature in Europe focuses predominantly on the theoretical concepts and the suitability of RDA to the cataloguing traditions of the respective institutions. The most practical case studies come from the UK, which is natural as most of the European implementers are UK institutions. The few case studies about European institutions that have emerged, however, provide a very good and thorough view of the implementation process in addition to resonating with many of their international colleagues' observations.

3. Research Methodology

This dissertation examined case studies on RDA implementation from around the world, with a focus on European countries, in order to form a comprehensive picture of RDA perceptions and implementation practices in different cultural and linguistic environments. In order to do that, it was decided that a literature review would be undertaken and complemented with various online resources. Additionally, it was decided that national institutions from European countries would be contacted for conducting interviews about RDA implementation decisions and processes. This mixed approach was taken because a preliminary literature review had shown that there were only a few case studies pertaining to the RDA implementation in Europe. Furthermore, in order to ensure that enough data was collected in case not enough participants responded to an interview, a fair amount of openly available resources were sought out online. It was decided that the data would undergo a thematic analysis, using a thematic coding, which means that a list of themes was already available (Ayres, 2008). The process of the thematic coding for each data source is shown below.

3.1. Literature review

The first part of the research consisted of a literature review of the case studies published about the RDA implementation process in various institutions. An initial search in the ProQuest LISA database with the terms 'RDA' and 'RDA implementation' resulted in several hundred results. It became apparent from these that most of the literature on RDA has been published in *Cataloging and Classification Quarterly (CCQ)*. A further review of the search results revealed that several academic journals have published issues dedicated to the topic of RDA and its implementation. Therefore, similar to Mitchell (2013) in his analysis of case studies from the United States RDA Test phase, the attention was first

turned to the articles published in the special issues of four journals, all covering aspects of the RDA implementation. These journals were *Alexandria*, Volume 24, Number 2 from August 2013, *Cataloging & Classification Quarterly*, Volume 52, Issue 6-7 - "RDA Around the World" - from September 2014, *Journal of Library Metadata*, Volume 14, Issue 3-4 - "RDA: Resource Description & Access—Reports from the Field" - from December 2014 and *JLIS.it*, Volume 7, Issue 2 from May 2016. It was further looked through all the articles published in *CCQ* on the topic of RDA and the ones dealing with the implementation of the rules in national and academic libraries were selected. Search alerts were set up to inform about recent articles outlining the RDA implementation decision and process. This was meant to help form an understanding of the scope of implementation to date and provide a basis for analysis of practices and outcomes. Results from the search alerts included the latest special issue of *CCQ,* which dealt with the topic of rare materials and the role of RDA in describing such materials.

In the analysis, the articles were grouped into three categories, depending on the nationality of the institution the article was about – U.S. institutions, European ones or the rest of the world. It was considered in the initial stages to form an analysis based on implementation at Anglophone and non-Anglophone institutions. The North American, British and Australian libraries share a common cataloguing tradition and practices and thus they have more similarities than differences. However, with the way RDA's development and implementation are being organised through RSC and EURIG, the British libraries are much more involved on a European level and in the future, more collaborations are expected to ensue among the European RDA adopters. The reason that the U.S. had its own category is because most of the case studies published were about U.S. libraries, while there were only a few case studies from the rest of the world. Looking at the case studies from other non-European and/or non-Anglophone countries provided a wider background context for cultural and linguistic issues.

Once the case studies were sorted into the three groups, the U.S. articles were analysed by thematically coding them, based on four topics formed during a preliminary literature review. This approach is the same that Mitchell (2013) undertook in his review of case studies on the U.S. RDA Test and first, it was considered that his framework was used, which consisted of these four common themes: "cataloging tool efficacy, RDA similarity to other cataloging and data models, technical encoding opportunities and challenges, and organizational implications/best practice recommendations" (p.73). However, based on the research questions for this dissertation and the preliminary literature review, it was decided that the following six themes would be used: reasons for implementation, implementation process, training, implementation issues, attitudes towards RDA, and

cooperation during implementation. During the coding, these six themes merged in the four broader themes of Perceived Issues, Reasons for Implementation, Implementation Process and Training. As Ayres (2008) affirms, coding categories are not static or unalterable and thus, the four broad themes were further analysed using sub-topics that emerged in each theme. These were the following:

I. Perceived Issues
    i. Systems and formats
    ii. Rule clarity
    iii. Toolkit navigation
    iv. Practical cataloguing
    v. Other

II. Reasons for Implementation
    i. Follow the LC decision
    ii. Copy cataloguing
    iii. Future benefits
    iv. Attitudes

III. Training
    i. Basic concepts
    ii. Practical learning
    iii. Online tools
    iv. Differences between AACR2 and RDA
    v. Time and scale of training
    vi. Training based on LC materials

IV. Implementation process
    i. Policy creation
    ii. ILS configuration
    iii. Cooperation
    iv. Future expectations
    v. Other

3.2. Online sources

As there were not that many articles on the global and European implementation of RDA, it was decided that they would be reviewed case by case. Of those, only a few were detailed case studies and each of these was reviewed by applying the four broad themes from above. Although there were not many case studies published about European institutions, there were plenty of materials published freely online by some institutions which outlined interest in RDA or concerns about the new rules. There was documentation on the RDA Toolkit, the EURIG and the RSC websites which was helpful in compiling data about current trends of implementation among the European institutions. Some institutions' websites offered brief general descriptions of their cataloguing rules and traditions and those were helpful in providing an overview of the spread of RDA in Europe. Libraries' websites also sometimes contained links to library-specific publications and blogs specialising in different aspects of librarianship, including cataloguing. At times, when information about RDA adoption was vague or ambiguous, it was helpful looking through records in national catalogues to determine the state of RDA cataloguing in the respective country. The online documents and materials were sought out, compiled and

used either as a basis for further analysis or a snapshot of the current situation in some countries. Here again, the goal was to bring the data together, as much as possible, under the four themes analysed in the U.S. case studies.

3.3.   Interviews

With only a few available academic case studies, the research needed to be complemented with reports from the field. Thus, interview questions were devised which aimed to reflect the themes encountered in the literature review to ensure as close as possible comparability. The aim was to gather data from different European countries with various cultural traditions and economic backgrounds. A geographical division made sense as a first level of determining which countries to gather data from. So ideally, it was desirable to have respondents spanning the whole continent. That also allowed for having respondents with different cultural and linguistic traditions, as for instance southwestern countries are also culturally closer to each other but distinct from north-western countries. When it comes to librarianship, it was considered that a good representation would consist of institutions from countries which have had traditionally a strong librarianship model, such as the UK, Germany, France and the Netherlands; countries which have been leaders in library innovations, such as the Scandinavian countries; and countries which have been leaders in librarianship in their region, such as Slovenia and the Czech Republic. Considering cataloguing traditions, on the other hand, was also important in order to be able to reflect on the different challenges and issues stemming from various cataloguing traditions. For instance, most northern countries have been using AACR-based rules, while central, eastern and southern countries have been using ISBD-based rules or long-standing rules based on the country's cataloguing tradition.

Participants were approached via email, either through academic contacts or using the contact information on various websites. After the participants were contacted by email, those who agreed to an interview were sent a preliminary outline of the interview questions. Some participants have preferred to send their answers back via email while interviews were arranged with others. Admittedly, these two methods yielded somewhat different results. For instance, the interviews contained much more indication of the different attitudes towards RDA within the organisations and provided more observations than the email responses. However, somewhat similarly to Park and Tosaka's study (2015), it was thought that the email option would ensure a better response rate, as participants could reply on their own time. The interviews were devised to be semi-structured with similarly outlined questions. However, there were also questions specific to each institution and certain differences depending on the nationality of the institution and implementation plans; thus the questions varied between 10 and 15 with most of them

being open-ended (see appendix 1). The questions revolved around similar topics to those encountered in the literature review and as such centred on the following major themes: reasons for change; training and preparation; issues, challenges and concerns before, during and after the implementation; perception of international cooperation. Five interviews were conducted in total, with four face-to-face and one over skype, with representatives from the UK, France and Finland (see appendices 2-6). From the email interviews, further seven have been returned by respondents from the Netherlands, Austria, Slovakia, Poland, Italy, Slovenia and the Czech Republic (see appendix 7). Additional information has been gathered through a few email conversations with respondents from Croatia and Serbia (see appendix 8). Despite the small participation, the respondents answered the criteria for diverse cultural and linguistic backgrounds, being from four different parts of Europe. The interviews took from 45 minutes to an hour and were recorded and then transcribed.

Similarly, to the literature review, the transcriptions together with the email responses were thematically coded using the NVivo software. The four main themes from the literature analysis were taken, and another three were added, reflecting the interview questions – Cooperation, Translation and FRBR. After coding the first couple of interviews, another two themes developed – Future Developments and Observations. Again, as with the literature analysis, those themes were sub-coded to reflect certain aspects of each theme. Here, there were more sub-topics than in the literature analysis, which could be due to the more heterogeneous European environment as opposed to the United States. Finally, the analysed data from the interviews was examined together with data from documentation and other openly published materials by the respective institutions, where available. That, along with the published case studies allowed for an insightful discussion about RDA implementation decisions and practices in Europe. Combining the analysis of the case studies in the research literature, the analysis of the openly available documentation and materials and the data analysis from the interviews achieved the fulfilment of the research objectives.

4. Findings and Analysis

4.1. *Overview of RDA in Europe*

Firstly, it seems relevant to point out that in most European countries, surveyed in this dissertation, a decision about RDA implementation is taken to varying degrees on a national level, usually by a national library. Indeed, in some countries like Spain, Slovenia or the Netherlands, although not all libraries are obliged to follow the national decision, it is expected to do so; while other countries like France, Denmark and Latvia a decision by

the national body has to be followed by all. In fact, it could be said that only a few countries in Europe have a fully decentralised cataloguing and among those are the UK, Ireland and to some extent Switzerland.

4.1.1.   EURIG

The European RDA Interest Group was conceived in 2009 at an ALA conference and it was first formed in 2010 when it presented a seminar in Copenhagen, Denmark which outlined the development and implementation of RDA on a European level (News and Announcements, 2016). It was the first time that views and plans of European countries towards RDA were put together and summarised (RDA in Europe: Making it happen, 2010). The following year EURIG was formally launched to foster cooperation and discussion on RDA between European countries (Press Release, 2011). EURIG members can become libraries and institutions which deal with cataloguing or are interested in the application of the new cataloguing standard (Cooperation Agreement, 2011). EURIG is constantly evolving and now includes 39 members from 26 countries (EURIG Members, 2016).

4.1.2.   Countries that have implemented

Apart from the academic sources, there is an abundancy of openly available sources. Many of these come from EURIG and present a picture of RDA implementation among many of the European countries. EURIG has provided not only a platform for discussion of RDA on a European level but has also facilitated a collection of indicative attitudes towards RDA over the years. It was observed that in 2010 most European countries considered RDA with caution and a 'wait-and-see' attitude (Danskin and Gryspeerdt, 2014), similar to reports from the U.S. around the same time (Tosaka and Park, 2013). A report from a survey in 2013 shows already significant changes with more than half of respondents having definite implementation plans and the rest performing some kind of analysis or review of the standard (Gryspeerdt, 2013). As of 2016, RDA has been implemented at institutions across ten European countries, with another three in the process of implementing (Who's Cataloging in RDA, 2015; Nicholson, 2015; Cullen, 2015; EURIG Seminar, 2016) (*Table 1*).

Implemented	Started/starting implementation	Deciding/decided on implementation
Austria, the Czech Republic, Finland, Germany, Iceland, Republic of Ireland*, Latvia, the Netherlands, Switzerland*, the UK	Norway, Slovakia, Sweden	Denmark, Luxembourg, Portugal, Slovenia, Spain, Turkey
Interest	**no interest/other options**	**Unknown**
Belgium, Bulgaria, Estonia, Lithuania, Serbia, Ukraine	Croatia, France, Italy, Poland	Greece, Hungary, Romania, Russia
*partly		

Table 4.1. Summary of the state of RDA implementation in Europe - 2016

From these, two full translations of RDA have been produced, with another two on the way (EURIG Seminar, 2016). The cases of implementation at the British Library (BL) and the National Library of Scotland (NLS) are discussed below. Germany, Austria and German-speaking Switzerland have gone through the RDA implementation cooperatively and the process has been described in detail in two case studies, discussed above (Behrens et al., 2014; 2016). The National Library of Finland has recently finished its implementation project during which the most recent full translation of RDA was published on the RDA Toolkit, and the National Library of Norway is preparing a Norwegian translation, expected to be produced in the following year (Seppälä, 2016; Berve, 2016). The National Library of Slovakia is also preparing a full translation. The rest of the countries – the Czech Republic, Iceland, Latvia, the Netherlands and Sweden – for the moment, have all opted for partial translations of terminology and core concepts in their respective languages (EURIG Seminar, 2016; Synnermark, 2014). In Iceland, RDA's implementation was led by the Consortium of Icelandic Libraries and thus implemented simultaneously throughout all libraries in the country (Magnusdottir, 2016). It has been mentioned that translation has been a big issue during the Icelandic implementation and that it is still ongoing according to need (Steinarsdóttir, 2016). Sweden has recently set a date for RDA implementation for 2017, and in the meantime a project exploring the use of RDA in personal archives has demonstrated the applicability of RDA for archival materials (Säfström, 2016; Fick et al., 2015). The cases of Finland, Slovakia and the Czech Republic are further discussed below. The Republic of Ireland is the only European country non-member of EURIG where RDA has been implemented, although there each institution needs to make its own implementation decision (Cullen, 2015). Furthermore, judging by recent records in the online catalogue of the national library, no implementation decision has yet been taken on a national level.

However, RDA records are being accepted and the catalogue has been hybridised, as the MARC fields for content, carrier and media have been added (see appendix 9) (NLI Online Catalogue, 2016).

4.1.3. Countries deciding on RDA

There are some countries that have not reached a decision of whether RDA will be implemented at their national institutions or not. Such is the case of Denmark where the adoption of RDA has been discussed since 2012. An analysis has been performed concerning issues, such as the authorised access points, numbering and dating of works, and the danMARC2. A decision for a partial translation of the terminology has been taken. However, despite the active role of Danish representatives at EURIG and in promoting the use of RDA in Europe, there are still concerns among the decision-makers in Denmark, especially regarding the costs of an implementation. Other issues include the need to introduce authority control and issues arising from the descriptive practices of public libraries (EURIG, 2016; Cato et al., 2015; Cato, 2016). The National Library of Spain (*Biblioteca Nacional de España* - BNE), another long-standing member of EURIG, has also been considering RDA for the past several years, performing a national analysis, and comparing the current Spanish rules to RDA. The Library is considering three options for changing the cataloguing rules – changing to RDA, revising the current rules according to the FRBR and FRBRoo models, or continuing with the current rules. The BNE has also invested time and resources into translating the RIMMF (RDA In Many Metadata Formats) tool into Spanish and has taken active part in RIMMF events (Caro Martin and Prada, 2016). It is noted that there is already a number of Catalonian libraries that are due to start an implementation of RDA and a Catalonian translation is expected soon in the Toolkit (Prada, 2016). The BNE, however, feels that before reaching a decision, it has to have a thorough justification for the improvements from RDA, since this decision would also affect other libraries around the country. One issue has been the Spanish translation, produced in Latin America as mentioned above, which has been found unsatisfactory to the needs of the BNE. The Spanish analysis has further revealed, similarly to the Danish, some differences regarding the creation of authorised access points. Finally, the BNE has considered the creation of a "BNE RDA profile" instead of the full adoption of RDA (Caro Martin and Prada, 2016, p.6). The National Library of Portugal has also followed closely the development of RDA and is preparing a translation into Portuguese along with training materials and information about RDA. However, it has not been mentioned if and when a decision on the adoption of RDA would be reached (Silva et al., 2016). Similarly, in Turkey where AACR2 has been used for the past three decades, the implementation of RDA has

been studied. A survey among academic libraries revealed the willingness of cataloguers to become more informed about and trained in RDA. It also stated a dedication to implementing RDA on a national level, even if it that was perceived a long-term, continuing process (Atilgan et al., 2014). In addition, an academic library association in Turkey is a member of EURIG (EURIG Members, 2016) and it has been organising RDA workshops and training seminars (ÜNAK, 2016). The national libraries of Slovenia and Luxembourg are also considering RDA. Finally, the reasons all of the above countries still have not reached a decision about RDA most commonly revolve around the costs and resources needed for an implementation which includes changes in information systems, as well as concerns about fundamental differences between the cataloguing traditions.

These reasons are also applicable to the four countries that are known to have considered RDA and decided against its full adoption. For Croatia and Poland, it has been mostly a matter of cost that prevents them from adopting RDA (Buzina, 2016, email communication; Śnieżko, 2016). Italy and France have concluded in their analyses that RDA diverges in too many points from each country's cataloguing traditions to be applicable. The consensus has been, however, that RDA's principles and concepts would still be present or aligned in the respective institution's cataloguing rules. The cases of Italy, France and Poland are further discussed below.

4.1.4.   Countries with interest in RDA

Nearly half of the European countries are not members of EURIG, however, some of these countries have shown interest in RDA (see *Table 1*). That interest consists mostly in informative presentations about RDA and introductory workshops. Most recently, a training in RDA has been conducted for Belgian cataloguers (Verhegge, 2015), since the adoption of RDA is considered a long-term goal for the cataloguing agencies in Belgium (Declercq et al., 2013). The national libraries of Ukraine and Estonia have both sent delegates to the last EURIG conference, where they expressed interest in studying RDA in order to decide on implementation plans. Both representatives related similar problems, such as a lack of understanding of and opposition to the change to RDA by the library communities in their respective countries as well as the considerable costs and resources needed for such a project (Strishenetes, 2016; Makke, 2016). However, in Estonia where AACR2 and MARC21 have been used for years, the emphasis is more on how to promote the change to RDA (Makke, 2016). As of August, 2016, the National Library of Estonia has become a member of EURIG (EURIG Members, 2016). In Ukraine, a further problem is the outdated information system and old cataloguing rules, which are perceived as unsuitable and in need of change and which is why a Working Group on RDA has already been created

(Strishenets, 2016; ULA, 2014). The National Library of Lithuania has also been following the development of RDA and has expressed interest in the new standard (Goldberga et al., 2014). A consortium of academic libraries from Lithuania is in fact already a member of EURIG (EURIG Members, 2016). In Serbia, Savic (2012) has discussed RDA and the developments it brings into the bibliographic description. She further expressed the view that a change in the Serbian cataloguing rules that is in some way aligned to RDA is desirable to reflect new technologies (Savic, 2016, email communication). At a recent conference in Bulgaria, Milanova (2016) presented three options for a change in the Bulgarian cataloguing rules – a wait-and-see approach; the development of new national rules; and the translation and adoption of RDA. While the last option presented the most advantages, such as wide community-based support, in relation to disadvantages, the decision about such a project was considered premature in the absence of appropriate communication and regulatory structures on a national level to support such an undertaking. In general, all of the above countries viewed RDA as way of modernising and internationalising their cataloguing rules as well as fostering cooperation with institutions around the world. However, the significant amount of resources needed for such a change presents as a barrier to further consideration of RDA adoption, especially to smaller institutions.

4.1.5.   Conclusion

Overall, examining the reasons of all those European countries for implementing or considering to implement RDA, it becomes clear that the emphasis is on the need to change outdated national rules, in order to support the description of digital resources as well as the desire for greater standardisation both on national and international level. Some of the countries have also either catalogued in AACR2 or considered the adoption of AACR2 prior to the development of RDA, thus an adoption seems to be a natural progression. However, a common barrier to the RDA adoption is the high cost, both financially and in terms of time and other resources. Interestingly, although one of the advantages of RDA is commonly considered to be its flexibility, there are still concerns about its applicability in various cultural contexts. At the same time, there are concerns about the many options in the standard that are viewed as troublesome for the standardisation efforts. At the end, most professionals express the sentiment that at the very least RDA needs to be considered in order for their institutions to remain current with international developments.

4.2. Interview results

By the virtue of the interview questions, most responses fell into seven distinct topics, the most prominent being the process of implementation and the training. The other five – implementation reasons, issues and concerns, cooperation, translation and FRBR – are more or less equally discussed, apart from FRBR, which has not generated much responses. Other themes that emerged are the future development of RDA as well as its wider applicability. A final topic encompasses various observations about both general and specific issues the respondents expressed. Most universally talked about was the topic of collaboration, followed by the reasons and training. The subtopic of the difference between RDA and the previous rules at the respective institutions was also almost universally touched upon. The question about FRBRisation was answered by all respondents but the topic of FRBR was not mentioned by many.

4.2.1.   Reasons for implementing RDA

The most common reasons for libraries to choose or consider to implement RDA were the interoperability and exchange of data, the fact that RDA is based on FRBR, and the outdated current or prior rules. Other reasons included the international aspect of RDA and its applicability to e-materials. For some institutions it was considered it would be easier to adopt RDA rather than create their own rules; others cited reasons like desire to move towards linked data and desire for unifying the cataloguing rules on a national level. For about half of the libraries, the move to RDA was considered either as an unavoidable decision or a logical transition.

When it comes to the sharing of records, some respondents specified it to mean the downloading of records from OCLC while others viewed it in the more general sense of being able to share the cataloguing data. This was also considered a way to decrease the costs of cataloguing, both by institutions which are adopting RDA and those which are only aiming for alignment with RDA. At the National Library of Finland (NLF), the E-R model underlying RDA was considered beneficial to the kind of cooperative cataloguing the library is aiming for. For the National Library of France (*Bibliothèque nationale de France* – BnF), one of the reasons for considering RDA was precisely because of the many records that are being downloaded from WorldCat, especially by academic libraries in France. In the end, however, the BnF decided it would not be as beneficial as hoped because of the many alternatives for applying RDA. In Poland, the aim to make the metadata more interoperable is the reason for the national rules to be aligned with RDA.

The FRBR-related reasons were mostly about the institutions expecting that RDA would help with the FRBRisation of their catalogues. However, there was a clear dichotomy in the responses, since the British Library, and indeed most other institutions, did not consider FRBRisation an end in itself, while at the BnF the FRBRised catalogue has been regarded the goal towards which RDA could help, something which the BnF has stated on many occasions (Leresche and Bourdon, 2011). Somewhat similarly to the former, at the NLF RDA is considered a step towards linked data.

For some institutions the benefits of RDA were perceived to be its increasing international adoption, which together with other initiatives was considered a move towards more international cooperation. Being part of the modern librarian world was another response that echoed the above sentiments.

Not all respondents are choosing to implement RDA. Although France, Italy and Poland have examined the new standard for the reasons mentioned above, a decision was taken not to proceed with its implementation. For the first two, RDA is considered to be too contradictive to the respective national cataloguing traditions, and the compromises needed to adopt RDA fully, too many to be sustainable. In Italy, the view is that a standard developed outside the local cataloguing community could not "be of much use or utility for a […] national library community of large size, as the Italian one". This statement somewhat echoes the French sentiments where the view was expressed that for RDA to work fully in France, too many changes would be needed, which in such a large cataloguing community is not viable. As to Poland, a complete change to RDA was considered too expensive. It was noted, however, that RDA instigated a revision of the old cataloguing rules and drove forward the need to change the rules in Poland. Thus, all three countries expressed a desire to revise and align their rules with RDA.

Finally, for most of the respondents who were AACR2 cataloguers, a move to RDA was more or less considered inevitable. This was true not only for the English-speaking libraries but also for other AACR2 cataloguers, such as the Czech Republic and Slovakia. For the British Library and the National Library of Scotland, both long-standing members of the Program for Cooperative Cataloging (PCC) and enjoying traditionally close ties with the Library of Congress, it was a certainty that they would follow the LC's decision. Moreover, the involvement of the BL in the development of RDA meant that a change to RDA would be made at a first opportunity as it indeed happened, with RDA implemented at the same time as at the Library of Congress. The Austrian implementation decision was also a "reflection" of that of its international partners – Germany and German-speaking Switzerland – since a decision on that international level was agreed on by all parties.

4.2.2.   RDA implementation process

When it came to the implementation process, the most commonly talked about aspect was the difference between RDA and the previous or current rules. One reason for that might be that this question was asked at most of the interviews. However, so were questions about re-cataloguing and costs, yet they did not get the same amount of discussion. A distinction that seems important to note here is what kind of rules did the institutions use prior RDA, whether it was AACR2 or the nationally developed rules. *Table 2* shows what rules were used or being used in Europe prior to RDA. The information was compiled both from the interviews and the additional research (Behrens et al., 2014; Goldberga at al., 2014; Kanic, 2014; Willer and Barbaric, 2012; Kieffer, 2012; O'Dwyer, 2013).

AACR2	National rules
the Czech Republic, Slovakia, Denmark*, Estonia*, Finland*, Iceland, Ireland, Latvia, Norway, Sweden, the UK, Luxembourg*, Switzerland**, Turkey	Bulgaria, Poland, Ukraine, Lithuania, Croatia, Italy, Portugal, Serbia, Slovenia, Spain, Austria***, France, Germany***, the Netherlands
*based **partly	***were considering AACR prior to RDA

Table 4.2. Use of AACR2 among European countries

The differences in recording the publication statement using the new granularity of Publisher, Distributor, Manufacturer and Producer as well as the different way of recording the copyright date appeared most commonly in the responses, regardless if they were AACR2 cataloguers or not. Another universally mentioned difference was that of terminology and in particular the WEMI (Work, Expression, Manifestation, Item) entities. The increased time for producing authority records, the relationship designators and the cataloguer's judgement option were also mentioned by a few. Differences in recording the authorised access points were mentioned mainly by non-AACR2 cataloguers along with the description of place names. Other differences mentioned pertained to music cataloguing, multipart monographs and the 'exact transcription' rule. For AACR2 cataloguers, the different structure of the text was a major difference since AACR2 is structured around the description of a specific type of resource, unlike RDA where the structure follows the description of different elements.

When it came to the cost of implementation, most respondents found that the financial costs were not so much the issue as were human resources and the amount of time spent on the project. Some mentioned that training took up most of the resources spent on the implementation process while only a few remarked on the costs for the Toolkit. Scheduling

was rarely mentioned during the interviews. However, a delay in the start of the implementation process at the NLS was considered to have been helpful in the sense that it allowed for more time for training and implementation decisions. The BnF, which is creating its own rules based on RDA, remarked that scheduling the implementation of these rules has been difficult as their development has been taking longer than expected. Therefore, a decision was taken to schedule an implementation for each set of rules as soon as said set was published.

A few respondents mentioned the formation of Working Groups to work on the implementation, although it was surmised that in general all implementers had some kind of a project team. At the same time, however, none of the institutions had teams exclusively dedicated to working on the implementation project, which had to be run alongside the daily tasks. The configuration of information library systems was only mentioned by two of the institutions which were also early adopters. The British Library remarked on the use of the Toolkit's administration module which helped in the decision about the number of Toolkit licenses needed. Regarding re-cataloguing or retrospective conversion, most of the respondents said they had not and were not planning to do so, mostly because of the cost and resources needed for such a project. However, among libraries in Finland, some cataloguers felt that a retrospective conversion would provide more consistency in the catalogue, so although there is no decision on a national level, it is a practice among some libraries. Additionally, the NLF has already made some automatic conversions in order to include the content, media and carrier types in old records. Two other respondents indicated that they would re-catalogue records into RDA if they found mistakes in the records that required a re-cataloguing anyways.

There were other more specific parts of the implementation process that came up, such as the necessity to install two screen monitors for cataloguers at the BL in order to facilitate work with the online Toolkit, or the decision not to include the option of 'cataloguer's judgement' at the NLF at first, which later needed to be revised. Something that was rarely mentioned, perhaps because it was not implicitly asked in the interviews, was the development of policy statements. However, among the institutions that mentioned it, the creation of policy statements was aided by the documentation of other institutions, such as the Library of Congress or the British Library.

Finally, a lot of comments pertained to the attitudes towards RDA and the implementation process, although they all came from the face-to-face interviews, which is understandable as that is one of the benefits of this method. The NLS was the only institution that did not relate any negative attitudes and instead reported that cataloguers were generally happy

with the changes in RDA and felt well prepared once RDA cataloguing started. At the other libraries, cataloguers were at times both confused and angry with the changes although they also found them interesting and exciting.

4.2.3.   RDA implementation training

In most interviews, the training approach was underlining most of the topics discussed. As a topic in itself, it seemed to be the second-most talked about after the implementation process aspects. Naturally, most of the comments came from the institutions which have already implemented. The topic of training was also the one that consisted of most aspects, since although there were some commonalities in the responses, various institutions emphasised various training approaches. In fact, two of the respondents commented on the fact that each institution had its own needs which informed the training approach much better than the many available best practices materials from other institutions. Still, there were a few common themes among some of the respondents. For one, the 'train-the-trainer' approach seemed to be almost universally adopted. In most cases, that meant the formation of working groups who would train ahead of time and then devise and deliver training to the rest of the staff, or to other libraries in the country, as is the case of France and Finland. This preliminary training was carried out in various ways. For some institutions there was a more structured approach where training sessions and practical lessons were organised. For others it was up to the project managers to self-train, seek out and prepare training materials. It was also mentioned by some that the trainers would then become the point of reference for the rest of the staff when issues would arise. Some institutions indicated that they have created online spaces or wikis where questions could be asked and problems discussed as a kind of ad-hoc support. The case at the National Library of Finland was a bit different because the platform for online questions took on a major part for the training due to the little available time and resources to conduct extensive face-to-face workshops and seminars. Relating to the preparation of the trainers, the point was made that at institutions, such as the British Library and the NLS, the lengthy exposure to RDA years before its implementation had a positive influence on the subsequent training and implementation process. A testing phase was also found beneficial to trainers' preparation by revealing possible issues that needed to be addressed.

The use of Library of Congress training materials as either example or basis for the training programmes was another fairly common aspect, no matter the working language of the institutions. Although it appeared that it was the English-speaking institutions that used these materials as a basis for their training, while the rest used them mainly for the

trainers. All of the institutions that have used them considered them as very well prepared and useful.

The use of RIMMF, which is a tool developed to help visualise the underlying FRBR-concepts in RDA, was also mentioned by some of the respondents. Most notably, at the BnF it is actively used in training and considered very valuable as a "proof of concept" that FRBR-based cataloguing is possible to achieve and that RDA should move more towards the FRBR concepts. At the British Library, although it was not used extensively at the time of implementation as RIMMF was still in early development, it was considered a good module to include in future training. Most of the other respondents did not mention using RIMMF during training. However, RIMMF was discussed during the EURIG seminar where it became clear that many libraries were planning the organisation of the so-called 'Jane-athons' (or 'X-athons' as they are starting to be known due to the more and more nations organising those) (Hennelly, 2014; Phipps et al., 2016).

When it came to the training process, generally a mixed approach of theoretical and practical sessions was viewed as best. Some respondents emphasised the value of practical training, and one respondent recognised that having provided only theoretical training was a disadvantage. Most respondents felt that a good grounding in the FRBR and RDA concepts was needed and seminars that covered those basics were provided. However, none of the respondents indicated a particularly high amount or prolonged time of training sessions, as these were on average contained within a month. What appears to be the case is that training is an ongoing affair in which wiki sites are utilised and cataloguing issues are discussed in the course of the work. For instance, the British Library has had a very good experience in using workflows - which were implied to be the "bridge between MARC21 and RDA" - within the Toolkit both as a continuous cataloguing aid and a training tool.

Most institutions expressed the sentiment that the biggest challenge of training was executing it as part of the daily working process and without disturbing that process much, as hardly any institution had a dedicated time for training activities. Another often-mentioned challenge was understanding the FRBR concepts, the WEMI entities and the E-R model and how those related to practical cataloguing. At the BnF, the view was that the challenge really lied in the latter - applying the RDA model in practice - as the concepts were not considered all that difficult to grasp.

Finally, at most institutions the feeling was that the training was both well prepared and well received. There were also cases at both ends of the spectrum, however, as at one institution people felt particularly happy with their training, while at another the training

approach was considered inadequate and lacking. Regardless, almost all institutions have shared training materials online either on a national level or openly accessible for all.

4.2.4.   RDA translation

For most European countries the translation of RDA was naturally an important part of the process. Regardless of their implementation decisions, all countries considered a translation of RDA beneficial. Italy's decision to translate the whole standard probably stands out the most among those countries that have produced full translations. Although RDA is not considered a viable solution for Italian cataloguing, the cataloguing community believes that the standard should be studied and taken into account like all other international standards which also have Italian translations. The rest of the countries which opted for a full translation did that to ensure the approachability of the standard and to facilitate the learning. Those that decided for a partial translation did that mostly out of economic reasons. For the Netherlands, it was mentioned that people in general are quite proficient in English, so a translation of the main terms and vocabulary seemed sufficient. The Czech Republic implemented by translating only certain terms and elements but it is considering a full translation on a later date when the high amount of change in RDA will slow down. Most common issues related to the translation included the complexity of the text and what was regarded as its confusing language; less of an issue presented the Anglo-American bias, although for languages that have gender-specific designations it was a challenge. In both the German and Finnish translations, the terms 'Expression' and 'Manifestation' had to be translated literally, which was not considered a very good solution by either cataloguing community. The German translation took a lot of discussion about how certain terminology should be translated. In France, similarly to Spain, the French-Canadian translation is not considered entirely adequate to the needs of the French cataloguing community, and it was observed that often it was easier to consult the English version rather than the French translation.

4.2.5.   Perceived issues and concerns

When discussing any concerns about RDA, the issues that most commonly came to the front were about practical cataloguing and the updates in the Toolkit. However, several respondents pointed out that a great concern is the lack of viable systems and formats to accommodate RDA and the perception that much more needs to be done towards enhancing metadata if RDA is to have any effect. In fact, it was noted that among cataloguers at the British Library the lack of difference in the output between AACR2-created records and RDA records was one of the discouraging parts of the whole process.

That echoes another sentiment that RDA could only be fully efficient if it is implemented into databases that make full use of the WEMI distinction.

When it came to practical cataloguing, the issues most commonly echoed the differences between RDA and the previous rules, as described above. Several respondents pointed out issues with recording the publication statement feeling that the instructions were not clear. Two of the respondents pointed out that in recording the main entry, an issue was to determine the creator or contributor for works and expressions. Several respondents found that 'cataloguer's judgement' policies needed to be adjusted post implementation, where some found more options were needed, while others needed to limit the options. In Finland, the description of music resources has been deemed inadequate by cataloguers, especially in public libraries, which echoes a similar issue in Denmark, and resonates with the Italian analysis of RDA. The British Library and the Finnish one touched upon the topic of record suppliers. While at the BL, an RDA compliance of their purchased records was agreed on before implementation, at the NLF it became an issue since providers still have not moved to RDA production. This echoes one U.S. implementer's warning about taking in consideration that record providers might not move to RDA production before there is market demand (Cronin, 2012).

Most respondents seemed to regard the constant updates in the Toolkit as one of the major issues of RDA. Although the developments in the standard were appreciated, these were critiqued both for coming around too slowly and for being too frequent. At the British Library, as an early adopter, the observations were that the amount of changes have slowed down from what they used to be at the beginning. However, the level of change was still considered high and keeping up-to-date with the changes, making sure the workflows were updated was considered one of "the hardest things". Similar sentiments were expressed at the KB along with the concern that not everyone could afford to follow all the changes. Further, it was pointed out that it was highly unlikely that records would be re-catalogued to accommodate the changes, thus ending up with too much variety in the catalogues. The updates also presented issues for the countries that have a full translation of RDA. In Finland, cataloguers have been advised to refer to the English version for the most up-to-date instructions, which is similar to the experience among the German-speaking countries (Behrens et al., 2014). As mentioned above, the constant changes in RDA were one of the reasons a full translation would only be considered at a future date by the Czech Republic. In France and Italy, where RDA is not being fully implemented, the changes were still a major concern as they were thought to cause "managing problems in cataloguing activities" and difficulties when working on the adaptation of the standard. Nevertheless, all of the respondents considered it important

and expressed dedication to following up with the updates, translating them and incorporating them in their cataloguing policies.

Other issues that were observed included the complex and often unclear language of the text, which was a challenge especially to cataloguers not working in their native language. The instructions were further described as "too schematic" and "too specific" for a semantic web approach. The Anglo-American bias was remarked upon, especially when it concerned specific areas of cataloguing like legal ones. Finally, a few respondents expressed concern about the cost of adoption that poses a barrier for considering an implementation, especially to smaller institutions. However, those respondents also expressed willingness to work towards finding a solution and helping these smaller organisations that might not be able to undertake such a project.

4.2.6. Collaboration on RDA

All of the respondents' institutions are members of EURIG, so naturally when it came to cooperation, this was at least one of the discussed aspects. Three broad themes were distinguished here – support during the implementation process, providing advice to others and collaboration on the RDA development. When it came to the last one, EURIG has been the platform that has facilitated this work. Most of the respondents indicated that their institutions participated in working groups that tackled issues within the standard and prepared proposals to the RSC. For many institutions, the involvement in EURIG was a way to keep updated and follow the development of RDA. The BnF has emphasised this aspect because they do not exclude an adoption of RDA in the future, thus keeping up with developments is important to them. Some respondents indicated that EURIG provided a network of support for more practical issues of cataloguing. While the only example of collaborative implementation was the one of the German-speaking countries and other institutions have not considered it, many examples were cited of discussions that helped with advice on certain issues. It was observed that such discussions were also a kind of "mental support", especially for implementers who felt as lone project managers, and this also resonated with similar observations by the U.S. implementers cited above. Apart from EURIG meetings, visits to other institutions and other countries were also considered very useful. Almost all respondents mentioned consulting the available documentation of other institutions. As mentioned above, most of the European countries would take an implementation decision on a national level, meaning that they were already working within a network or consortium of libraries. In fact, seeing how even in the UK there was some coordination between the legal deposit libraries, it could be argued that there was hardly a European institution that has gone through a stand-alone implementation. Of

course, there have been various degrees of support among the library networks since in most cases the national institution was spear-heading the project and as such held the greatest expertise. It could be argued that the reason for that was the same as in French Canada, where one institution due to its familiarity originating from the translation work on RDA became the support centre for the rest of French Canada (Cross et al., 2014). So when it came to providing advice, unsurprisingly, most of it was on the national level. Nevertheless, early adopters like the British Library have been delivering training sessions both nationally and internationally for the past few years. And in Scandinavia, Finland as the first adopter has been asked for advice by neighboring countries. Overall, however, most of the respondents reflecting on the international collaboration between implementers did not find that there was much of it and did not find that to be necessarily a drawback. In other words, it was regarded as a good thing when discussions ensued but it was not something that was purposefully sought out.

4.2.7.   Observations and future developments

This section outlines some general observations about RDA and the perspectives on its future development. One aspect was the international sharing of data on which most of the respondents agreed that RDA was the way forward. However, there was doubt as to how much influence RDA would have on that process. Furthermore, it was observed by various implementers that at the moment RDA did not have any influence on the international cataloguing sharing, as data has continued to be shared among the same institutions as prior to RDA. When talking about the future of RDA, all respondents expressed similar sentiments about the need to utilise and enhance metadata and make it more flexible, to offer better discovery systems and to work towards linked data. Respondents agreed that RDA was part of that process but was not enough as it was just one string of that process. Some put the emphasis on more global cooperation and opening up the metadata, making it shareable. Another important consideration was the interoperability of the library standard with other cultural heritage description standards. That means working towards making RDA interoperable with those standards to allow the incorporation of various metadata.

Finally, several of the respondents shared their observations on RDA and its development. This included the perception that the input from the European bodies has increased and that there were greater ties on international level between institutions which was hoped to lead to more cooperation. Another observation was about the value of RDA as an international standard and the new approaches it has offered, defined as interesting and useful. Another reflected on working with public libraries and convincing them of the

value of the international standards for cataloguing. Here, a sentiment was expressed that echoed a similar one from the U.S. implementers (Cronin, 2012), namely that to library staff, it was often not clear what the differences were in the roles of the international standards, the information systems and the bibliographic formats.

4.3.   Discussion

Based on the research in this dissertation, RDA has been shown to have a significant presence in Europe. Although not all European countries were examined, the majority demonstrated varying degree of familiarity with RDA. Among the surveyed European countries there was a fairly equal division between the ones that have adopted or are adopting RDA and the ones that are either not adopting or still deciding. Generally, it was observed that countries that are more uncertain about RDA, such as Spain or Slovenia, have been using national cataloguing rules as opposed to countries that have been using AACR2, such as the Czech Republic and Latvia. Another observation was that southern and Romanic-language countries were less inclined to adopt RDA and more inclined to be doubtful about it, in addition to not coming from an AACR2 tradition. This shows that culture and language might play an important role when it comes to the cataloguing rules. As was mentioned by the Dutch respondent, the Anglo-American tradition was not so far away from the Dutch one. At the same time, it seemed that the tradition of cataloguing widely determined the acceptance of RDA (see appendix 10).

Despite cataloguing and cultural differences, when it came to the reasons for considering RDA all countries had similar goals in mind. Working in a digital world where data could be easily shared, the cataloguers felt they needed a description standard that could not only support the sharing of data but do that on a global level. Being part of the international library community was important to all, and RDA was perceived as one of the bridges between the various cataloguing communities. The fact that some countries are not adopting RDA but are still working towards an alignment with RDA is evidence of the international importance of the new standard. Those reasons are echoing the ones provided by the global community, where Asian and Latin American countries have also put the emphasis on the internationalisation of the cataloguing to which RDA could contribute. There are, however, fewer similarities with the North American adopters, whose emphasis was on following with the national bodies and the Library of Congress in particular. However, that is probably due to the different types of institutions that were examined – mostly academic libraries in North America versus mostly national bodies in Europe and the rest of the world. An oft-cited reason that was common to everyone was the interoperability that RDA was expected to provide when sharing records, regardless nationally or internationally.

When it came to RDA implementation and issues, there was little difference between institutions globally. Training and the benefits of long exposure to RDA topics were considered important by all, and Library of Congress materials were often consulted when devising the training. The issues of unclear text and structure of the RDA Toolkit were universally discussed. The concern that there were still no viable solutions in encoding formats and information systems to accommodate RDA were expressed by all. Apart from the fact that countries with no AACR2 tradition were more uncertain about RDA, there was no evidence that the previous rules had any effect on the implementation process of RDA. Interestingly though, when it came to cataloguing challenges, most Europeans mentioned the publication statement and very rarely referred to the content, carrier and media type, while the opposite was true for North American institutions. That could be because the content, carrier and media fields are now commonly found in MARC records, regardless if these are RDA records or not. In fact, most libraries tend to implement these fields before the actual RDA implementation and their use is considered a good interim or hybrid solution (Śnieżko, 2016).

The bias towards Anglophone cataloguing was observed among most European implementers but it was also pointed out by some of the English-speaking adopters (Park and Tosaka, 2015). Unlike the U.S. implementers very few of the European institutions mentioned ILS changes, and these were mainly the early adopters. Conceivably, the ILS vendors have quickly caught up with the demand for RDA compliant systems, as more recent implementers had no issues with that aspect of the implementation. One issue that was barely touched upon by the U.S. implementers was that of the continuing updates in the Toolkit, while for the European adopters it was a major concern. Perhaps that is because most of the U.S. case studies were written just at the verge of the implementation process, while most of the surveyed European implementers were using RDA for a couple of years. That would allow them to have more insights about how it is to actually work with RDA. One thing that was observed by many after implementation was that there were no significant changes in the records output. Although that has been considered frustrating by most, all implementers expressed positive attitudes for the future of RDA and its importance to cataloguing. This could be taken as an indication that the adoption of RDA is considered an investment in the long-term future of cataloguing.

There were some individual comments and observations among both U.S. and European implementers that although did not relate to comments in their respective groups, found resonance with their overseas colleagues. For instance, the perception at the National Library of France was that the new concepts behind RDA were not difficult to understand, which resonated with an article suggesting that RDA was quite intuitive, especially to new

cataloguers who did not have the legacy from AACR2 (Harden, 2012). So it could be that cataloguers in France who are using the traditional French rules, and are therefore not burdened by AACR2, are better equipped to work with the FRBR concepts. A point that was uniquely made by the British Library during the interviews was the importance of creating AACR2-free training materials for future cataloguers. That same issue was also discussed by Kuhagen (2011) when talking about the training for the U.S. RDA Test. In fact, that seemed to be an issue also for current cataloguers in one U.S. library as they were found not to understand some AACR2 rules (Jin and Sandberg, 2014) and a similar issue presented in Finland. A final one is the sentiment expressed by a couple of the European respondents that RDA was not enough when it comes to better metadata and user discovery. The same issue was discussed in a more recent U.S. article when talking about building a linked data architecture (Wu et al., 2016). This is perhaps due again to the fact that more recent RDA discussions leave behind the operational issues of implementing the new standard and instead focus on its future utility and development. Thus, it should be expected that in the future, more discussions would focus on RDA's performance and effects on metadata creation.

This leads to one of the major differences between the European and U.S. implementers, namely, that the former were much more prone to discuss the future development of RDA. Most of the European institutions are either closely involved in working on the development of RDA or dedicated to following this development. This is undoubtedly because those are all various national bodies, traditionally invested in following and being involved in international developments. However, it was still surprising that none of the U.S. cases, barring the one of the Library of Congress, discussed RDA developments even in the national context, given that North American academic libraries are generally more autonomous than their European counterparts. However, with the growing internationalisation of RDA and its continuous development, it is feasible that more institutions, both different types and nationality, will become interested in the standard's development.

Another noticeable difference was the greater consideration that European adopters have given to the Archives and Museums sector and how RDA could be utilised to bring the sector closer to the Libraries sector. As mentioned above, the European countries are taking a lead in discussing that issue on an international level and furthering the development of RDA's wider applicability. The most recent case study on the German-speaking countries discussed extensively this topic (Behrens et al., 2016) and a presentation from May 2016 discussed the importance of cooperation between libraries and other cultural institutions and the utilisation and sharing of authority data among

those institutions (Aliverti and Behrens, 2016b). More recently, a paper on this work was presented at an IFLA Satellite Meeting, outlining the project for aligning the German rules for special and archival material to RDA (Aliverti and Behrens, 2016a). At the same forum, a presentation on the adaptation of RDA to a data model for memory institutions in Finland was presented (Seppälä et al., 2016). The *CCQ* special issue on the topic of rare materials had mainly contributors from European institutions, again emphasising the point that the discussion on describing cultural heritage is led by Europe. On the one hand, this could be explained by the European countries' vested interest, given the vast cultural heritage stored in some of the oldest library institutions in the world. On the other hand, it is a discussion that would continue to evolve, especially as more and more institutions are now past the RDA implementation stage.

A final discussion point relates to the different aspects of and perceptions on collaborative work between institutions. Among U.S. implementers, cooperation on the RDA implementation was considered a major benefit. Implementers, regardless if part of a consortium or a stand-alone library, recommended some kind of collaboration among cataloguers from different institutions. One of the main reasons was, of course, the expertise that other institutions might already have on encountered issues; another related to having the support of a community. Sharing and re-using documentation and training materials from other libraries was common among U.S. implementers. While there was evidence of the latter among European institutions and a couple mentioned benefitting from the former, in general, there was less emphasis on collaboration among different European institutions. As some respondents pointed out, each institution had its own specifics and requirements, and the experiences of other institutions would rarely apply. While that was certainly true for U.S. institutions as well, these were conceivably less heterogeneous than the European ones.

When it came to perceptions of future collaboration, the topic was rarely discussed by the U.S. implementers and mostly reflected on the need to work together on bibliographic developments. In contrast, among European institutions this topic was approached from the angle of international cooperation, since one of the main reasons for adopting RDA in Europe was the internationalisation of cataloguing. However, the European implementers did not feel that RDA influenced that. Regarding the international cataloguing sharing, most European respondents were sceptical that RDA would facilitate that any more than its current state. However, on both sides of the ocean it was observed that the discussions about and implementation of RDA have led to more cooperation. Young (2012) noted the formation of communities of practice among U.S. cataloguers relating to learning and sharing knowledge about RDA. Among interview respondents, it was observed that there

has been more communication between institutions, while collaborative work on RDA issues has been carried out by international working groups for a few years now. Thus, what could be said is that although so far RDA has not influenced the internationalisation of the catalogues in any practical or noticeable way, the work on the standard has brought closer the international library community. And although work on RDA is considered important, there are other issues that could benefit from an international cooperation, as one respondent aptly described them:

> *"We have to change our library systems, we have to change our data models to be able to share our data with each other; we have to have open source systems; we have to find the way to cooperate in metadata productions on a global level."*

The development of RDA could be the premise for developing and nurturing closer working relationships on the above mentioned issues among international institutions, both on European and global level. In the end, even though RDA might not be the solution to all issues of description and access, it has an effect both as an international standard and as a catalyst for future developments.

5. Recommendations and Conclusions

5.1. *Recommendations and further research*

The use of RDA has not altered much the daily cataloguing practices or outcomes as many of the implementers have noted. Nevertheless, changes in working practices are rarely smooth or universally accepted. Institutions undertaking such an implementation project might consider using a change management approach to foster better acceptance among the staff (van der Voet, 2014). In fact, it was evident that some of the early adopters have engaged in some kind of change management, whereby they would keep the wider organisation informed about developments and changes years before the implementation. All of them have noted that the long exposure to RDA, although not anticipated, has helped when the change-over finally happened. Institutions that are considering an RDA implementation might also find it beneficial to start discussing that early on with their staff, even before a decision has been taken. Informative discussions as well as basic introductions to the new concepts and FRBR, not only for the cataloguing staff but for others interested, may go a long way towards a smooth transition in the future, as was evidenced by the early adopters. It might be beneficial that the future research on RDA implementation considers the implications and applicability of change management in that context.

Implementation case studies on RDA have been published by various institutions, albeit mostly Anglo-American, over the past four years. They contain invaluable lessons in what might work and what should better be avoided, even though each organisation has its own specifics that would need special consideration. In the end, however, there are plenty of similarities between those case studies and their conclusions and it could be claimed that a sufficient set of recommendations has already emerged. Something that could be of interest for future research is a glimpse of how those organisations that have already implemented are managing the work with RDA. For instance, it has been shown in this dissertation that the frequent updates of the Toolkit are causing concern both among RDA cataloguers and future implementers. Although the development of the standard is expected to continue and is generally regarded as a good thing, there is frustration in having to work with so many frequent changes. The British Library has noted the need for some kind of a roadmap that would enable the Toolkit subscribers to better plan for the future developments. Further research into the challenges of working within RDA and issues that need resolving could be beneficial. Another strand of research here could be how many, or if any, of the updates came about from nation- or culture-specific applications of the standard. With a greater variety of institutions implementing RDA, issues come to the front that have not been thought of before. How that is influencing the future development of RDA could be another research point.

In the U.S. and the UK, public libraries are far from considering RDA due to costs and minimal resources for cataloguing activities (Lambert et al., 2013; Danskin, 2013b). A few of the European implementers have touched upon the topic of public libraries and their perception of RDA. Seeing how in some of the European countries the public libraries are part of the national implementation scenario, there is a possibility to explore further this topic. There are unique challenges that lie ahead of public libraries when it comes to utilising description standards and that until now has not been explored as the focus has been mostly on academic and national libraries. But with the development of RDA, more attention needs to be paid to the small and public libraries that so far have not been able to afford an implementation project, lest a gap develops that would be detrimental to the information sharing and ultimately the users.

Collaborative implementation was evidenced to be an unfeasible option for most of the institutions. It is, however, possible as the case of the libraries in the German-speaking countries has demonstrated. That project involved participants from three countries and 16 institutions and thus required a robust organisational structure. Some of that was supported by a wiki platform for sharing information, decisions, and issues and enabling discussions (Behrens et al., 2014; Behrens et al., 2016; RDA-Info, 2016). There is definitely

a cooperation on a European-wide level as well, and EURIG has already provided a platform for the discussion of RDA. There are also the available materials from the Library of Congress which all implementers have indicated, at the least, to have been a reference point. A utilisation of the already available tools and materials in the form of an open platform could be the next step for the European cooperation on RDA. A discussion on that has already been opened at the last EURIG seminar and the promise for such a platform could only be beneficial for future implementers.

Finally, the more international the standard becomes, the better it would suit the needs of the various cataloguing communities. At the moment, there is hardly any research about the perception of RDA globally. The RDA Board is discussing adding representatives from six global regions but only three have been defined so far (Governance Review, 2016). However, approaching a global research carries all the difficulties mentioned here about researching materials from different cultures and languages and adding to that is the lack of sources for certain regions of the world. And of course there is the issue of the great scale of such research. Naturally, it is mostly dependent on the scholars and professionals from each country to present their cases to the wider profession. However, most of that research is hardly found in translation or distributed to a global audience. A curious solution could be found in an unofficial blog about RDA (RDA Blog, 2016) that has incorporated a mapping tool that shows from which parts of the world the blog has been accessed (Visitor Traffic, 2016). While this is a relatively straight-forward tool, utilised by many blogs, it could provide a grounding for initiating research or a starting point in seeking out research from other countries.

5.2. Conclusion

This dissertation explored the state of RDA adoption among European countries. It achieved that by looking through the literature of RDA implementation and interviewing professionals from various European national institutions engaged in bibliographic and authority control. In doing that, it also compared the implementation of RDA in U.S. libraries to that in European libraries. It looked at the perception of the RDA concepts and the relation with the FRBR model. The dissertation further looked at the internationalisation efforts in the development of RDA and the way different national traditions influenced the perception and implementation of RDA. Further, translation issues were considered and examined as part of the implementation process unique to most of the European countries. The dissertation also explored the perceptions of collaboration and dedication to work cooperatively with colleagues from other institutions and countries either on the implementation of RDA or its development.

5.2.1.   An international standard

Since its creation RDA has been designed to become an international standard. Over the years, its adoption has been advocated around the world (Tillett, 2016). In recent years, it has spread throughout Europe, as there are now more countries that have implemented or thinking about implementation than not. Furthermore, the RDA adoption would become more and more widespread, as more institutions opt for implementation. If in the first couple of years, after the publication of the standard in 2010, most institutions assumed a 'wait-and-see' approach (Sanner, 2012), the proliferation of RDA records and its adoption by major national libraries spurred the rest into action (Turner, 2014). European libraries are not different in that aspect. Their cautious attitudes are being replaced with the need to ensure better interoperability and cooperation on the international level. RDA is considered by many to be the standard that will bring the library resources closer to the semantic web and be flexible enough to do that for all kind of resources from all kind of institutions (Cronin, 2012; Guerrini, 2015). Those reasons, along with the prospect of internationalising their catalogues, are the main drives for libraries to implement RDA.

Although it has been six years since its publication and three years since its first implementation at a national organisation, the standard is still being developed which is stirring ambiguous feelings among most people interested in RDA. On the one hand, it has either been applauded as issues of concern have been addressed, or simply expected as practical implementations reveal new issues (Cronin, 2012). On the other hand, the continuing frequent changes have been a cause of concern and frustration, as implementers find themselves constantly revising policy decisions. However, it has been conceded that one of RDA's assets is its flexibility (Loesch, 2013), which allows for it to be adopted by various cultures and countries. Thus, working towards developments that make the standard more easily adaptable to various traditions has been an important objective for the publishers and developers of RDA as well as for various national bodies. The official developers have always sought input from other institutions in the work on the standard (Tillett, 2016) but it has not been until recently that a more formal structure is being developed with the aim to ensure a global involvement in the work on RDA (Governance Review, 2016; Berney-Edwards, 2016). This points to the continuing dedication to internationalising the new standard.

5.2.2.   RDA in Europe

Interest in RDA comes from all around the world, however, there is still a distinction between countries that have used or are using AACR2-based rules and those that are using

their own national rules. In Europe, southern and Romanic-language countries generally have had their own rules based on their cataloguing tradition and as such are less inclined to adopt RDA. On the other hand, countries which have had traditionally closer ties to the Anglophone world, such as Germany and the Netherlands (Hartmann, 1996, pp.9-26), have accepted RDA readily, even though their cataloguing rules have not been AACR2-based. Nevertheless, all European countries have acknowledged that an adjustment in their current cataloguing rules is needed in order to respond to changing content formats, users' expectations, and the global information sharing. Most respondents have affirmed that RDA is, for the moment, one of the best standards to achieve all of those objectives, even if some have certain reservations.

In general, there was little difference between the RDA implementation in the U.S. and Europe. While the former implemented for reasons of interoperability on a national level, and the latter were more focused on the international aspect, the implementation processes and the outcomes were relatively similar. Understanding the FRBR concepts underlying RDA and the importance of training were widely emphasised, and the need for better information systems and encoding formats was professed by all. Implementers have also demonstrated similar attitudes – frustration when it came to the differences and changes, especially pertaining to the new concepts and terminology, and optimism about future developments. It should be noted that most of the national European libraries are responsible for the implementation of RDA on the national level among other libraries and not only at their institution. Thus, European implementation projects in general have taken longer time than the ones exemplified in the U.S. literature. Some more differences coming from the national status of the European implementers are their greater involvement in the development of RDA and a greater interest in the interoperability between RDA and other descriptive rules for cultural heritage objects. The latter is a topic that is expected to be further developed and explored, especially as more European libraries are finishing their implementation projects and turning their attention to the cooperation with cultural heritage institutions.

In the end, the future of RDA is to remain firmly on the path of internationalisation and to both contribute to and prompt the development of interoperable metadata standards. There is also the need for information systems that accommodate such interoperability and enable discovery and access that are in line with the expectations and varying proficiencies of users operating in an online environment. The implementation of RDA is a step towards those goals but as it was mentioned repeatedly, it is not enough.

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Glossary

AACR2	Anglo-American Cataloguing Rules, Second edition
ALA	American Library Association
BL	British Library
BNE	Biblioteca Nacional de España - National Library of Spain
BnF	Bibliothèque nationale de France - National Library of France
CFLA	Canadian Federation of Library Associations
CILIP	Chartered Institute of Library and Information Professionals
D-A-CH ARW	Anwendungsrichtlinien für den deutschsprachigen Raum - Policy statement for the German-speaking libraries
DNB	Deutsche Nationalbibliothek - National Library of Germany
E-R	Entity - Relationship
EURIG	European RDA Interest Group
FRBR	Functional Requirements for Bibliographic Records
FRBR-LRM	Functional Requirements for Bibliographic Records - Library Reference Model
GMD	General Material Designation
Group 1 Entities	Work, Expression, Manifestation, and Item
Group 2 Entities	Person, Family, and Corporate Body
IFLA	International Federation of Library Associations and Institutions
ILS	Integrated Library System
ISBD	International Standard Bibliographic Description
JSC	Joint Steering Committee
LC	Library of Congress
LCPS	Library of Congress Policy Statement
LCRI	Library of Congress Rule Interpretations (AACR2)
LMS	Library Management System
MARC	MAchine-Readable Cataloging
NACO	Name Authority Cooperative
NLF	National Library of Finland
NLS	National Library of Scotland
PCC	Program for Cooperative Cataloging

RAK	Regeln für die alphabetische Katalogisierung - German cataloguing rules
RDA	Resource Description and Access
REICAT	Regole italiane di catalogazione - Italian cataloguing rules
RIMMF	RDA In Many Metadata Formats
RSC	RDA Steering Committee
WEMI	Work, Expression, Manifestation, and Item

Appendices
Appendix 1 - Example interview questions

Thank you for agreeing to participate in this study. Your answers in this interview would be instrumental in informing the main part of a study about the decision-making and implementation process of RDA in Europe.

Please be informed that by agreeing to participate in this interview you confirm that you are aware of your rights and stipulations detailed below.

The interview consists of 10-15 open-ended question and will take between 30 to 45 minutes. You can answer as many or as little questions as you wish. You can refuse to answer any of the questions without giving a reason. You can withdraw from the interview at any point and you can have your answers and data removed from the study at any future point up until the submission of the dissertation on September 1st.

All your personal data will be anonymised and treated strictly confidentially. All data will be stored in secure manner and duly destroyed after the completion of the study.

Please be informed that the interview will be recorded, processed and analysed to allow for the forming of a comprehensive picture of the state of implementation of RDA. You can withdraw permission for recording the interview before or at any point during the interview.

Please be informed that due to the nature of the study your answers might be associated with the nationality of your institution. You can choose for your answers to not be associated with the nationality of your institution at any point during the interview and at any future point up until the submission of the dissertation on September 1st.

If you are interested, I could send you a copy of the dissertation and/or a summary of the interview results.

I remain at your disposal for any further questions you might have via email: dilyana.ducheva.2015@uni.strath.ac.uk or telephone: 07464763114.

1. What are the reasons for your decision to change the cataloging rules?
2. Have you decided to implement RDA?

    If yes:

    a. When did you decide and what were the factors that led to that decision?

    If no:

    b. Could you expand on your reservations or concerns preventing you to reach an implementation decision?
    c. If you plan to change to other rules and what do you perceive their advantages to be over RDA? Are there any disadvantages you might have considered?
    d. What significance, if any, does the availability of more training materials and experience of more institutions have on your decision about RDA?
3. On which part of the process did you spend/plan to spend most resources in terms of costs, time, and staff? What were some of the most unexpected expenses, if any?
4. What re-cataloguing decisions have you made in regards to both original and copy cataloguing?
5. What provisions/policies have you set in place to deal with the 'cataloguer's judgement'? Could you give some general examples?
6. Looking back, what do you think was the best training approach? What would you have done differently, if anything?
7. What differences, if any, have been the most challenging for your institution in switching between your previous rules and RDA? Could you give some examples?
8. How much collaboration have you had with institutions that have already implemented or are in the process of implementing RDA?
    a. How much are you willing to support libraries which are planning to implement?
    b. How extensive do you find the co-operation on RDA issues between institutions that have implemented and/or are planning to implement?
9. What are your thoughts on the continuous development of RDA?
10. How do you think RDA influences / could influence the international cataloguing sharing?
11. If you decide to implement RDA, would you be aiming for a full translation? Why, or why not?
    a. What were some challenges you faced during the translation?
12. Do you think that the Anglo-bias in RDA has influenced the translation and implementation of the rules at your institution? In what way?
13. How important do you consider FRBRisation for your catalogue?
    a. Do you consider it as something related to the adoption/use of RDA? In what way?
14. What are your concerns, if any, when it comes to RDA?
15. Do you have any other comments that you wish to add?

Appendix 2 – British Library Interview 1 Summary

Implementation

As one of the first institutions to implement RDA, there have been challenges and uncertainties. Although the change to RDA had been planned years in advance, it was desirable that the implementation happened in coordination with the JSC partners – the Library of Congress (LC), the National Library of Australia (NLA) and the Library and Archives Canada (LAC). The decision to implement RDA at the British Library depended on the LC decision and the British Library was unlikely to implement if LC decided not to.

The British Library followed the U.S. RDA Test closely and subsequently based its training materials and documentation on those developed by LC.

The delay in the development of RDA took its toll, especially in terms of staff/time resources. Staff were preparing as early as 2009 whereas the actual implementation went through in 2013. However, it was beneficial to look at the experience from the US test phase.

Two Expert Groups were established, in Boston Spa and London St Pancras respectively, to work on the implementation of RDA and they were responsible for the training and the preparation of materials and systems.

Provisions about RDA were included in the contracts with various agencies providing bibliographic services to the British Library, so these agencies would move to RDA compliant records, once the implementation took place at the British Library.

In preparing for the implementation, a test environment was created in the ILS to allow for the informal testing of RDA and to provide a place for practice; these test settings along with the new fields and indexes in the ILS were configured by the staff at the British Library. Installing a second screen for the cataloguers was another essential change in the work with RDA. The batch process of uploading CIP records also needed to be redesigned.

Deciding on the number of Toolkit licenses was not a straight-forward decision. Eventually, it turned out that fewer licenses were needed than initially planned – the 80 planned went down to 30 by 2016. The installation of the Toolkit helped with that decision as it provides a reporting system for how many licenses are actually used and it also provides a much better idea of how many people are actually cataloguing.

During implementation, logs were kept about issues to ensure they will be dealt with either in training sessions or on a later stage.

Training

The two Expert Groups were trained first, attending 6 modules in one week and were given time to practise in the ILS test environment before they went on to train other staff.

The training was mostly based on LC training materials. It was a mix of theoretical and practical application that was carried out in teams, usually within the trainees' own teams so that they would feel comfortable working with the same people.

The most useful training concept was the use of workflows which bring together RDA instructions pertaining to certain resources that are otherwise in various places in the Toolkit. An editorial group was set up to be responsible for the workflows. The workflows were also used to bring together various policy documents. The workflows have to be maintained over time as RDA instructions are updated or removed.

A valuable tool was considered the use of RIMMF which was an optional training module. It was found to be very useful as it helped people grasp FRBR concepts and start applying the new way of thinking. It is thus recommended to be included in any future trainings on RDA.

Training materials and documentation were shared among the Legal Deposit Libraries, all of which were implementing around the same time.

Challenges

The different organisation of the instructions in AACR2 and RDA was one of the main challenges. The various older policies that cataloguers followed also proved an issue when trying to unify and implement the new RDA policies. The use of workflows helped with both of those. There were also major issues with understanding the FRBR and RDA concepts and terminology and the use of RIMMF helped with that.

Analysis of the statistical reports that can be generated from the administration module in the RDA Toolkit helped identify certain issues which proved challenging for cataloguers and were consequently changed in the RDA instructions. It was mentioned that this approach is worth examining for identifying further issues in the instructions.

The batch upgrade of CIP records was another challenge due to the more complex matching necessary to discriminate between AACR2 and RDA records.

Generally, cataloguer's judgement is encouraged even if there has been some resistance to apply it; however, for certain authority work, policies had to be created to limit the time spent on records.

Something of a continuing issue is the lack of difference in the output between RDA and AACR2 which is considered discouraging by some.

Cooperation

During the training and implementation period, the British Library relied on its traditional partner institutions – these are the LC and the Legal Deposit Libraries as well as its external contractors to ensure compatibility with RDA. LC and the British Library worked together on creating the mappings for MARC. The British Library used the training and documentation developed by LC and then provided its own documentation to the legal deposit libraries. Certain policies needed to be agreed among all the LD libraries, so there was collaboration on that.

ILS configurations were also shared and later made openly available online.

After the implementation, the British Library frequently received requests for training and workshops and a training programme was developed that is offered both to domestic institutions and institutions from abroad.

However, when it comes to the international cataloguing sharing, there has been no change observed from the adoption of RDA as it is still happening among the same institutions as prior to RDA.

Concerns

There is a concern about the high level of change still going on within the rules and it is suggested that a road map is needed to direct future developments and to enable subscribers to plan for changes. Another major concern is that there are still no viable technical solutions for applying the FRBR concepts which underline RDA.

FRBR

FRBRisation is considered to be important, however, it is not viewed as an end in itself. It is a way to provide better experience for the user, however, an effective FRBRisation is itself dependent on the enhancement of the metadata. From the British Library's perspective, metadata enhancement has the higher priority, and FRBRisation will be one of the resulting benefits.

Other Cultural Heritage Sectors

It should not be the aim for RDA to supplant standards followed in other sectors, such as Archives and Museums but it will be beneficial for RDA to develop in a direction that would allow for a better interoperability with other standards.

Appendix 3 – British Library Interview 2 Summary

Implementation

From the cataloguer's perspective, implementing RDA was not an easy feat. Initially, there was doubt about the feasibility of implementing a set of completely new rules, especially considering the costs involved. But even before RDA was published, workshops were being held to make the management familiar with the changes coming their way and start them thinking on the implementation process. Managers were attending workshops and training for some 5 – 6 years previous to the implementation of RDA in 2013 and consequently attitudes towards RDA turned much more positive.

A big part of the process was to prepare the new documentation that would go with RDA. It was an enormous task, since there was already so much documentation about AACR2 accrued over the decades and it was frustrating that all this work would be lost with the arrival of RDA. So the plan was to take the AACR2 documentation and translate it as close as possible to RDA documentation. The concept of workflows within the RDA Toolkit was introduced and the cataloguing managers were tasked with developing the workflows. Since one of the biggest differences between AACR2 and RDA is the lack of coding examples in RDA, initially, it was thought to organise the workflows according to MARC order. But eventually, it was decided that the best thing would be to move away from MARC and to start using RDA terminology as much as possible so that cataloguers get used to the concepts and entities. So the workflows were structured around the different entities with a MARC index to help people orientate themselves and MARC coding examples were added. The policy was also developed before the implementation date – all options and alternatives were discussed before deciding which one will be kept in the policy and which one ignored.

Training

The managers have been immersed in RDA for years before the actual implementation, so it was considered a daunting task when it came to training the cataloguers but in fact that went over quite well and cataloguers were trained within a few months. The training consisted of PowerPoint presentations and during the sessions, it was often referred to AACR2 and how are things different in RDA. Although the decision was not to draw AACR2-RDA parallels in the documentation and workflows, for the training session it was considered helpful to point out the differences and explain what is being done differently with RDA.

Challenges

One of the biggest challenges was relating RDA to MARC as there are no coding examples in the new instructions and it was described as "being somewhere without a map". The different levels of description in RDA were also particularly challenging to come to terms with, especially with the flat structure that MARC21 presents, and the fact that there are no databases, no systems developed yet that could work with RDA the way it is meant to work. It was hard to get one's head around language and terminology and part of it was the lack of databases that could exemplify the three-dimensional nature of RDA and make it understood what RDA is talking about. RIMMF has been one tool that was helpful for starting to think about the different elements one catalogues when cataloguing a record.

Exercising cataloguer's judgement continues to pose a challenge. On the one hand, it poses more intellectual problems, there are more debates that ensue; on the other hand, it takes up more time and cataloguers don't always feel comfortable with the ambiguity.

A continuing issue is the annual updates published in the Toolkit. The managers start preparing for the updates months in advance, where they hold meetings and consider which of the changes to add to the BL policy and which to ignore. Keeping the documentation and workflows up-to-date is considered "one of the hardest things" although it has settled somewhat from the first two years after implementation when the changes were "massive".

<u>Attitudes</u>

In general, the experience with RDA is seen as challenging and interesting. The process of implementation, however, has been described as both confusing and frustrating. Confusing, especially because of the lack of databases that could represent the RDA concepts of the WEMI and thus make it harder to understand the changes coming from RDA. Frustrating because of the all the new and different layers one needs to consider now when cataloguing a record and the emphasis on the cataloguer's judgement that makes cataloguing far less straight-forward than it used to be.

Appendix 4 – French National Library Interview Summary

<u>Reasons</u>

The French National Library began considering RDA in 2011 when a change in the ISBD standard led the Library to start thinking about changing their own rules. Being based on FRBR was the main reason that the BnF considered RDA, since the Library have already had plans to FRBRise their catalogue, and an RDA implementation would spare some of the work in developing new rules. RDA was considered a tool to go towards a FRBRised catalogue. Consequently, BnF compared RDA to the French bibliographic analysis for moving to a FRBRised catalogue and concluded that there were too many differences to adopt RDA as it is.

<u>Issues</u>

The major disagreement was about the way RDA interprets FRBR and more specifically the definition of the expression entity which is viewed as a legacy from the AACR2 rules, something of a convenience to make the transition between AACR2 and RDA easier, and as such it has not been dealt with adequately in RDA. It is considered that the RDA interpretation of the FRBR model defeats the purpose of the model, thus making it difficult to create a FRBRised catalogue using RDA.

A concern about adopting RDA is that it would require too many changes or just make adoption more complicated because the French library already has its own rules regarding all aspects of cataloguing, as for instance the construction of headings.

Other issues include the dropping of the initial article which is not acceptable in the French language and which was something that was also addressed by the German-speaking implementers. Another is the Anglo-centric use of place names.

Another critique is that there is different treatment for different materials – that is, there is no universality in describing resources, so traditional resources like books are treated differently in their description than electronic resources.

Another major issue is that of the writing style. The way RDA is written is considered confusing and with too many repetitions which makes it hard to read. That has been the experience both with the English and French versions. The French translation which was produced by the Canadian libraries is not always understandable to the cataloguers in France as there are certain linguistic differences that make the French Canadian translation difficult and confusing at times. Although done in

cooperation, priority was given to the French Canadian alternatives at the time, as they were the ones going through with a full RDA implementation.

The way the content is organised in RDA is also seen as problematic and the hopes are that future developments would focus on the way information is organised within the instructions.

The sharing of cataloguing records has been an objective for the adoption of RDA, however, it is now considered that RDA is not conducive to international sharing because of the many options and alternatives that different institutions adopt. For international sharing, a less detailed, more applications based solutions is required.

Implementation

The BnF is writing their own rules at the moment, which are based on RDA but differ at points where there is disagreement. Cataloguing rules in France are coordinated on a national level between AFNAR, which is the bibliographic agency and ABES, which is the academic libraries network; so any changes or an implementation of new rules is agreed on by all libraries. National Working Groups and subgroups have been established to work on the rules and their implementation, as well as the training. There are regular meetings but also an online platform where people can keep up-to-date. These new rules will be implemented among all French libraries and although BnF is spearheading the project, there are people involved from all over France in the Working Groups.

The process of creating the rules has been a long and laborious one as the creators want to have the input from libraries all around France, thus arranging the meetings and times for the Working Groups has been a challenge. The rules also go through a review which takes more time and discussions. However, it is considered that this is the best approach, as to allow for the practicing cataloguers to have their say. Consequently, it has been decided in 2014, not to wait with the implementation until the whole set of rule is published but to implement a set of rules as they become available. The first set was published and implemented in 2015.

Challenges

There has been some resistance among cataloguers who feel that the old rules are adequate enough and don't necessarily like the changes. For instance, for some it was difficult to understand the changes within the publication statement, and more specifically the change in the dates order.

Although developments in RDA are welcomed and expected, since BnF believes there is still room for improvement, the constant updates are also a bit of concern while the French version is being adapted as it makes it harder to write the rules when they also have to be revised every time the updates come through. The reason for this is that BnF wants to remain as close as possible to RDA while still maintaining the French analysis.

Another challenge is keeping the public libraries updated and aware of the changes, since there is no formal network, such as ABES, to manage the preparation of the libraries for the changes; so there are some informational workshops organised by BnF but it is felt that more should be done in this regard.

Training

There is a network of training centres around the country that manages the training for the coming changes. A Working Group on training has been set up and they organise events and workshops explaining RDA, the reasons for changing the rules, and the reasons for not adopting RDA directly. The training has been going on for several years. When the first set of rules was published, there were also training sessions about those rules.

The LC training materials have also been used and are considered to be very well prepared.

RIMMF has been extensively used and was considered very useful in getting people to try out the concepts behind FRBR and RDA. Two Jane-athons were organised and there was always a lot of

interest in attending as well as high satisfaction rate with the event. It allowed participants to formulate questions they couldn't otherwise phrase as it helped them visualise the issues. RIMMF is seen as a solution to one of the difficulties in training people, namely, that although the concepts are not hard to understand, there has been no tool that allowed people to try them out practically.

<u>Cooperation and updates</u>

BnF is dedicated to collaboration with their international colleagues on the development of RDA. They want to have an active role as they see the potential of RDA and would like to develop the standard to further reflect the FRBR model. They are also working with RIMMF's developers with the goal of demonstrating that RDA and its FRBR concepts are more than applicable, and that RDA should be moving more towards FRBR.

There are ambiguous feelings about the updates in the Toolkit. On the one hand, RDA needs to be further developed and many of these updates are going in the right direction. On the other hand, it makes it more difficult and takes up resources when the new updates need to be taken in consideration for the development of the French rules.

Appendix 5 – National Library of Finland Interview Summary

<u>Reasons</u>

It was the Finnish Ministry of Culture and Education that first started to investigate new metadata standards and that is when the decision-making process about adopting RDA started. When the decision was taken for the National Library of Finland to implement RDA, the main reasons were to address the outdated description practices that did not fit the new type of resources and to reduce the cost of cataloguing by working more cooperatively on metadata production. RDA was considered a good and practical interpretation of FRBR, and the E-R model supported the cooperative cataloguing better than the traditional Finnish model and it was found to be very similar to the linked data structure. The main objective for the cooperative cataloguing was to increase the cooperation with the publishing sector and the Archives and Museums sector, where the Group 1 entities could be shared with the former and the Group 2 entities with the latter. A secondary future objective is a cataloguing cooperation on an international level.

<u>Implementation</u>

The implementation was carried out for all the libraries that contribute to the Union catalogue, which is about 40 libraries and these include both academic and public libraries. Everyone implemented at the same time and initially there was some resistance, which led to many negotiations but eventually the implementation project was a success. The rest of the libraries in the country are to implement little by the little in the following years, so training and information sessions are ongoing, especially for the public libraries which need more support from the NLF when it comes to following the international principles and standards.

Some of the cataloguing for the public libraries and the NLF is outsourced to private companies but the problem is that their records are not produced according to RDA and the NLF needs to convert them. It is further complicated, since most public libraries still catalogue with ISBD-based rules, and the private suppliers would have to produce records both according to RDA and ISBD.

When it came to old records, the NLF decided to do an automatic conversion that incorporated the content, media and carrier type. There were some changes that needed to be done manually, and initially, it was decided not to do that. However, some cataloguers felt that re-cataloguing according to the new standard should be done for better alignment, and since then, it has been acceptable to change the old records, although not obligatory.

The possibility to apply 'cataloguer's judgment' was not included in the beginning and all options in RDA were dealt within the Policy Statement. However, it was recognised that cataloguers should be

allowed some degree of exercising their judgment and the Policy was changed to reflect that, in particular regarding the instructions in 19.3.1.3; 2.4.1.5; 2.8.4.3 and 6.2.2.6.2. It was considered that allowing some leeway in the policy statements was beneficial, as it is not possible to make provisions for every instance of describing a material.

A decision was taken to produce a full translation of RDA which would be published in the Toolkit in order to make RDA more approachable and familiar for the libraries' staff. Making sure that the staff understood the underlying concepts and the new terminology was another reason, since the language of the text was considered very difficult; even after the translation it is still considered challenging. It also helped with the training to be able to refer to the Finnish text. The translation of the RDA text took four years and three translations before it was finalised and that was mainly because it was not a full-time project and there was only one person who was dedicating half of their time to that. Keeping the Finnish text up-to-date with the English updates was also considered a challenge. The updates are translated once a year and in the meantime, the cataloguers who are more invested in the strict application of the standard are encouraged to check the English version for up-to-date instructions.

Training

The trainers created the training materials basing them somewhat of the LC training materials but adapted them to fit the learning needs of cataloguers with all kind of expertise. The training consisted of 3 full-day sessions where the theory was emphasised. In the end, it was felt that there were not enough examples and the lack of practical training was considered a disadvantage. Since there were too many questions to be answered during the sessions, an online platform was created where the questions were discussed. It was also discovered that linking the theoretical concepts and instructions to examples helped with the understanding of the standard. The training is ongoing, as cataloguers are requesting more sessions and other libraries are planning to implement too. The NLF still has not had a RIMMF workshop but one is planned for the end of the year and it is expected to be an "eye-opening" experience.

Challenges and Issues

Carrying out the training has been an issue as it needs to be scheduled along daily activities, and that was complicated by recent redundancies; so time for training always needs to be negotiated with the senior managers. The fact is, however, that cataloguers still struggle with certain concepts, such as the WEMI, which translation was found frustrating by some, since it was a literal translation of the words Manifestation and Expression. The structure of the RDA text has also been a challenge, mostly because of the E-R model which was also not fully understood thus making it difficult to understand the text structure. There were issues that were found to be surprising by the trainers, such as confusion about the publication statement and the copyright date.

There have been issues within Music cataloguing, where RDA is still in the process of implementation. Problems with recording contributors or creators for music resources, especially in the Public libraries, have been cause for a negative backlash from cataloguers. In general, it was more of a struggle to introduce RDA among the public libraries because they are less aware of international rules and principles unlike the academic libraries which are more familiar with those standards because of the greater amount of copy cataloguing from foreign institutions they do. Another issue has also been the lack of support from library directors when it comes to cataloguing; and the perception that cataloguing is an outdated or low-demanding activity. So apart from introducing RDA, there were efforts towards educating people about the importance of metadata and the theoretical concepts that cataloguers need to be aware of.

The main concern about RDA has been its slow change, something that was also recognised by the Chair of the RDA Board, thus the NLF feels this should lead the standard to faster development in the future. Another concern was mentioned to be the invisibility of RDA, in terms that people outside of the library metadata field are not aware of the structure and possibilities that RDA offers.

At the same time, however, there is the issue of too frequent updates and the fact that the NLF cannot keep up with the translation of those. Translating them and incorporating them in their policy statement takes a significant amount of work, which is why it is done only once a year, meaning that Finnish version is not always up-to-date. It is, however, considered very important to include all of the updates in the Finnish version and the NLF is dedicated to continue this work.

Cooperation

The NLF is looking forward to working with the publishing sector and realising better interoperability between records the libraries get from publishers. The NLF is also planning to provide RDA training for libraries outside of the Union catalogue. There is also close cooperation on EURIG level and the NLF is involved in work on the RDA development.

Prior to implementation, there were consultations with the British Library and the DNB and there have been discussions about certain aspects of the standard during EURIG seminars, however, not as many. As the first Scandinavian country to implement, they have also discussed their experiences with other Scandinavian countries.

When it comes to the international cataloguing sharing, RDA is perceived as a way forward but also just one of the steps towards that. There is need for more changes to occur on both national and international level, so that a seamless sharing of data could become a reality.

Appendix 6 – National Library of Scotland Interview Summary

Reasons

The NLS has always had close ties with the Library of Congress and the British Library, so when it came to adopting RDA, it was pretty much accepted as a given that the NLS will follow through. Moreover, the NLS representative has been involved in RDA's development and that also meant that NLS staff was kept aware and informed about RDA. Being one of the legal deposit libraries, also meant that an implementation decisions among the LDLs would also affect the NLS. Furthermore, the improvement that RDA offered for cataloguing digital resources was also regarded highly beneficial.

Implementation process

There was a slight delay in the implementation plans for the NLS which eventually turned out to be opportune as it provided some more time for preparation. Before implementing, the library decided on its policy statement and prepared training materials. In doing that, it looked at other institutions' materials and documents for guidance. Eventually, the policy statement was based on the LC's with some of the options following the BL's decisions and some adapted to the NLS's local practices. An example of policy statement relating to 'cataloguer's judgement' is the decision to expand the author's 'rule of three' to five recorded authors, while still keeping the option to exercise cataloguer's judgement. A decision was taken early on not to re-catalogue anything. That also applied to downloaded hybrid records, which were accepted as they were. Regarding the ILS vendor, there were no issues as they were prepared for RDA and indexing tables were already provided. There were no overhead costs for the implementation, however, the staff did dedicate quite a lot of time to the whole project. Many preliminary meetings were held to go over the documentation and prepare training materials.

Training

Training was done by the senior cataloguers who used the LC materials to train themselves and then prepared and delivered training to the rest of the staff. That was done alongside daily work so it was a challenge accommodating the training activities without too much work disruption, thus training was delivered in small groups over several sessions. The training consisted predominantly of practical work and examples, and the LC quizzes were used after each module. What was

considered helpful was that discussions about RDA were happening long before the actual training and implementation, so people were familiar with the new standard and knew what to expect. The NACO training that was done prior to the bibliographic implementation was also helpful as it people became more familiar with RDA. The staff at NLS also had a good grounding in FRBR theory and concepts from previously attended workshops on FRBR. The training approach was a mix of webinars and practical work but it was felt that the practical work took up most of the time and was most useful. At the end, the perception was that the training prepared the cataloguers really well and that overall, cataloguers were confident in applying the new standard.

<u>Challenges and concerns</u>

When the work on authority records began, it was noticed that it took longer because of the new elements that had to be recorded. Eventually, however, it was noted that the more detailed records are a positive development as they are more useful to the end-users.

Getting used to the structure of the Toolkit, the fact that it is organised around the WEMI, was considered quite challenging. Another point was all the additional research that needed to be done in some cases - and was not required when AACR2 was used - which proved to be quite time consuming. Not displaying the content, carrier and media fields in the OPAC has been a cause of concern. It is hoped, however, that with a future planned move to a new LMS, that would be solved.

When it comes to the updates in the Toolkit, there was no air of concern but it was noted that meetings are held after each update to discuss the implications and that one has to be more aware of what is going on, make sure to follow all developments.

Another concern was expressed about the cost of the implementation and Toolkit that might not be feasible for smaller institutions and that there might be another solution found for small and public libraries that are not able to afford such a project.

<u>Cooperation</u>

As one of the earlier adopters, the NLS was prepared to share its experience and materials with other interested libraries. They have provided advice and shared their training materials with several Scottish libraries. When it comes to workshops though, those are organised mainly through CILIP CIG. The coordination on the implementation process among the LDLs was also organised mainly through the UK RDA committee (CILIP-BL committee) but in general each library did things according to their own needs or abilities.

Although it is not expected to see the effects of RDA on the international cataloguing sharing for a while yet, it is perceived that there is more cooperation among the European libraries and organisations, as well as more input from European institutions. The NLS is committed to further that cooperation and is open to a dialogue with other countries both on the implementation and development of RDA.

Appendix 7 – Responses to the email interviews

1. What are the reasons for your decision to change the cataloging rules?

Austria: *The development of the rules for alphabetical cataloguing (RAK) was discontinued in 2001 (see also next question).*
RDA integrates principles from the IFLA models Functional Requirements for Bibliographic Records, Functional Requirements for Authority Data, and the Statement of International Cataloguing Principles.
RDA is an international and unified standard designed for the digital world and provides rules for all kinds of bibliographic resources (different content and carrier types etc.).
RDA is extensible for new types of material. RDA data is compatible with existing records in online library catalogues and adaptable to new and emerging database structures.
RDA facilitates international data exchange.

The Czech Republic:
- *First big change of the rules was in 1995 – rules used in the Czech libraries were outdated (published in 1967). We accepted AACR2R.*
- *End of development of the AACR2R*

Italy: *The national cataloguing rules (REICAT) and the application guidelines for the national union catalogue SBN are in the process of been made freely accessible on a single online Wiki platform, http://norme.iccu.sbn.it. This will enable better coordination between the different levels and a better separation among rules, application guidelines, and policies (or application profiles). Illustrated and commented examples will be uploaded, following the tradition of the former "Quaderni REICAT".*
After a minor change in REICAT, the rules (which since their publication in 2009 follow the FRBR model) should be updated, and a better organisation of the elements, and of the separation of statements will be considered, even if the long catalographic national tradition will be preserved. However, unlikely RDA, syntax in the display of elements will be preserved, and a better contextualisation of elements will remain.

The Netherlands: *The KB participates in the joint catalogue for the UKB-libraries (that is the university libraries and the KB). More libraries have joined since, but it is the UKB-libraries that set the tone. The joint catalogue is hosted by OCLC and in time we will all join WordCat which they actively promote. In going international as you might say, UKB has realized that some sort of standard is necessary and what better than RDA as so many other libraries have already joined or are thinking of joining. So, it was not a separate decision, but part of an overall movement towards a more international approach, which includes RDA, ISNI, WorldCat and hence also Marc21.*

Poland: *We didn't make the decision to change the cataloging rules. I can only say that we are interested in RDA because of the lack of any document which would provide a complete set of cataloging rules for all types of resources. We also hope that the alignment of our cataloging rules with RDA would make our data more actionable and more interoperable.*

Slovakia: *The reasons are generally well known: new type of documents, new memory mediums, new accesses to information, global exchange of authority and bibliographic data, and AACR2 is closed. We want to be a part of the modern librarian world.*

Slovenia: *Our cataloguing code has been used for ca. 40 years and is obsolete (it was used in Yugoslavia and it is still in use although it is in Croatian language). It contains only the stipulations for cataloguing monographic resources, for other resources we use ISBD. We need a code for all bibliographic resources and we want to FRBRize our catalogue.*

2. Have you decided to implement RDA?
If yes:

a. When did you decide and what were the factors that led to that decision?

Austria: *The Austrian Library Network (OBV) maintains active membership in the Committee for Library Standards (for German-speaking countries). This committee decided to discontinue the development of the rules for alphabetical cataloguing (RAK) as of the end of 2001. In 2004 the Committee for Library Standards agreed on the internationalization of the German Standards. The resolutions included the changeover to MARC 21 as the unique exchange format for Germany and Austria, the active involvement in the development of international cataloguing principles and of the new standard Resource Description and Access (RDA).*
In May 2012 the Austrian Library Network took the decision to shift to RDA, in cooperation with the German-speaking countries. This "Austrian decision" is also reflected in the Committee for Library Standards' resolution to introduce the RDA standard in all networks and institutions represented in this body.

The Czech Republic:
- *RDA as successor of AACR2R*
- *RDA used in main libraries in the English-speaking countries, in Germany, Austria and Switzerland and planned RDA in other countries.*

Advantages: Rules same as in other big libraries (compatibility of records – National Library is exporting records to OCLC and importing records from OCLC and other databases – LC, DNB etc.)
Disadvantages: two sets of records (with different fields for some data – 260/264. 245 $h/33X) in one database.
A little problem with fields 336, 337, 338 – difficult to deal with them in the system. (Advantage of fields 33X: more detailed description of the type of material – maps in electronic form etc.)

Slovenia: *At the end of 2015 a working group was established at the national library to take a decision on a new cataloguing code (there are two options: moving to RDA or preparing our own national cataloguing rules). The decision of the working group was to move in direction of RDA (the decision was taken in June). Preparing own cataloguing rules would be too expensive and there are not enough experts available (there is a lack of staff at the national library, all of us have different tasks etc.). It was a hard decision because our cataloguing rules were very good and because we never used AACR or MARC 21.*
At the national level, the final decision will be taken by the end of the year, but there is a strong possibility that we will move to RDA (the decision taken at the national library will probably be respected).

If no:
   b. Could you expand on your reservations or concerns preventing you to reach an implementation decision?
   c. If you plan to change to other rules and what do you perceive their advantages to be over RDA? Are there any disadvantages you might have considered?
   d. What significance, if any, does the availability of more training materials and experience of more institutions have on your decision about RDA?

Italy: *At present we are analyzing RDA and have not planned RDA implementation in the network of Italian libraries (SBN)*
Besides being outside the Italian cataloguing tradition, RDA are very often too schematic, with the result of giving full of details when elements have few or no cases, and give no details (e.g. in older monographic resources) where many cases should be considered. English language has been over-considered in establishing rules, with the result of giving wrong instructions (as in the cases of considering music presentation an edition statement, and the author of an arrangement the responsible for an edition and not the modifier of a content). Some major issues are being faced, also with many (too many) constant modifications of the instructions, but RDA are far from being mature and acceptable, as the issues raised by the German and Finnish communities demonstrate.

Stating, as does the French community, that RDA will be adopted with a rate of 70% may be a good reply, in that it is obvious that any cataloguing code deals with cataloguing issues and proposes similar solutions to the majority of cases. It is also clear that any other cataloguing-related model (first of all FRBR-LRM), set of rules and international standard (such as a revised ISBD) will be taken into consideration.

Poland: *We are not implementing RDA because it is beyond our financial and staff possibilities. We decided to work on the alignment of our cataloging rules with RDA. We hope that this solution will allow us to avoid laborious and time-consuming modifications in our database and at the same time take advantage of the opportunities offered by RDA. I don't think that the availability of training materials could influence our decision but we are using these materials in our work a lot.*

3. **On which part of the process did you spend/plan to spend most resources in terms of costs, time, and staff? What were some of the most unexpected expenses, if any?**

Austria: *We spent most resources in taking an active part in the cooperative project and business trips in connection with that. And the trainings were very time-consuming for our RDA trainers.*

The Czech Republic: *Education of librarians.*
For some libraries: transition to MARC 21, as up to now some (mainly smaller) libraries were using UNIMARC. We decided not to support UNIMARC (as UNIMARC was not prepared for RDA anyway).

Italy: *RDA have high costs, both for the Toolkit subscription, both in terms of human resources within libraries for the implementation and use of the new rules.*

The Netherlands: *Deciding on the choices that are possible in RDA. Because of the joint catalogue, we wanted to decide for the whole of the Netherlands, not just for the KB. RDA has many rules which give you an option and it to time to decide every one of them so that they could be included in the Dutch profile and also fitted best with the existing practice*

Poland: *We didn't make any calculation of the cost of RDA implementation but it was quite obvious that having no prospect for additional sources of funding we would not be able to accomplish such a complex undertaking. We would also have to hire new employees what is rather unlikely.*

Slovenia: *We expect the costs will be rather high at first but we haven't made any calculation yet.*

4. **What re-cataloguing decisions have you made in regards to both original and copy cataloguing?**

Austria: *So far, we try to prevent hybrid records when they are originally catalogued by an Austrian cataloguer but by importing data from different sources we do have a lot of hybrid records. We allow cataloguers to import/copy records as they are – they do not have to re-catalogue them.*

The Czech Republic: *No re-cataloguing of existing records.*
- *Exceptions: records revised for some other reason (serials, non-finished multipart monographs, actual re-cataloging in case we have a new item and the old record is obviously incomplete – may happen in case of records converted from card catalogs).*
- *Records originating from conversions of old card catalogs (including newly converted records – still possible in some small libraries) have to stay in "AACR2R" (more or less) – these are records described according to the old Czech rules, so their accordance with AACR2R is not ideal, but still at least generally possible (generally the same meaning of GMD; the same comprehension of publishing information – in MARC 21 field 260, which in not possible to transpose to 264 without complete re-cataloging with the book in hand; very similar concept of authorship – "the rule of three"), in contrast to RDA.*

5. **What provisions/policies have you set in place to deal with the 'cataloguer's judgement'? Could you give some general examples?**

Austria: *The D-A-CH policy statements were worked out cooperatively in the working group RDA of the German-speaking countries. RDA offers alternatives and options at many points – each of them was discussed and a decision was made whether the alternative or optional instruction should be applied or rejected. Additional elements were defined and together with the RDA core elements they are the "standard elements" for the German-speaking countries.*

The Czech Republic: *Most important decision: source of description for authors. Connected mainly with the problem of "main entry", which is necessary for identifying of work, we had to set exactly, from which part of the resource we take the authors and where not. Similarly: the source for publishing information.*

The Netherlands: *Cataloguers are allowed to decide how much information to add beyond just 'core' if they think that will be useful for the customer, or perhaps useful in differentiating between (later) editions. For instance in rare books, half-titles sometime have a slightly different title form the one on the title-page and the cataloguer can decide to include that information in the record.*

6. Looking back, what do you think was the best training approach? What would you have done differently, if anything?

The Czech Republic: *Our approach was generally good; we would not change much.*
Courses for lecturers – cataloguers from the 20-30 main libraries in the Czech Republic, that were responsible for training of catalogers in their region/specialization

The Netherlands: *We had a small number of people who had a more extensive training ahead of the others. These people are also involved in the helpdesk and acted as question point for the other colleagues.*

7. What differences, if any, have been the most challenging for your institution in switching between your previous rules and RDA? Could you give some examples?

Austria: *The most challenging differences were and are the hierarchical descriptions of multipart monographs, the entity place (jurisdictions), corporate bodies in general, the huge amount of relationship designators (which we appreciate!), CMC types, and the entity expression.*

The Czech Republic: *Authors, 33X, publishing information.*
We began with the transition relatively early, while there were some changes in the basic rules; so we were trying to resolve some problems, where the text of rules did not suit to us entirely; and after we resolved it, the rule in the RDA changed.

Italy: *Whichever changes will occur, an alignment and mapping will be considered. As already said, mapping edition area and the related statement of responsibility are an issue, just like the excessive granularity in RDA in the distinction of Producer, Publisher, Manufacturer and Distributor (roles that are often unclear in OMR and audiovisual resources).*

The Netherlands: *The most challenging in describing modern books was the transcription rule. With rare books we were already following that practise, but not with modern books. For instance, in the transcribing the imprint. Before you could just note down the place name and the publisher, but with RDA, you have to transcribe this information exactly as it appears in the source.*

Poland: *Yes. There are some differences in creating of AAPs (eg. using the field of activity as a qualifier), in the use of conventional collective titles (we are using them only for music works), in the use of names of places as conventional names of government, etc.*

Slovakia: *Using models of FRBR and FRAD, recording data of responsibility, preferred title of work*

Slovenia: *There are differences between our current rules and RDA and they are very challenging. There are some differences in bibliographic description: we still use "the rule of three", we use*

many abbreviations etc. (we mostly follow ISBD), but major differences are in access points (the choice of access points, the form of access points etc.).

8. How much collaboration have you had with institutions that have already implemented or are in the process of implementing RDA?

Austria: *As the OBV is a member of the Committee for Library Standards (see response to question 2) and of the working group which was responsible for the implementation of RDA in the German-speaking countries, RDA implementation was a collaborative process for us. The project "RDA in Germany, Austria, and German-speaking Switzerland" was carried out cooperatively with 16 partners.[1] The Aleph networks of the German-speaking countries established their own subgroup to work on the implementation in their cataloguing format ASEQ (Aleph Sequential). Furthermore, the project manager responsible for the RDA implementation in the OBV visited the British Library to talk about their RDA implementation and their experiences during the transition.*

The Czech Republic: *We are downloading records of other libraries, or comparing our data with their records.*

Italy: *ICCU is a member of EURIG, and in communication with all major national cataloguing agencies.*

The Netherlands: *Not an awful lot, because we are quite early adopters in Europe and because each country has its own peculiarities which would only muddy the waters.*
- *Because of the joint catalogue, decision making about cataloguing rules has always been jointly by all the libraries, so that did not change with RDA. The decisions were still made in collaboration with the other libraries.*

Poland: *Thanks to EURIG we have the possibility to follow very closely the development of implementation of RDA in other countries. I had also the opportunity to spend some time in French and German national libraries. The EURIG membership and visits to other libraries are important for both making general decisions and searching for solutions to specific problems.*

Slovakia: *We do not cooperate with other institutions yet. We proceed from RDA Toolkit and available documents of institutions, which implemented RDA.*

Slovenia: *The national library has been a member of EURIG since the beginning and therefore we are able to follow the implementation process of RDA in other European countries. The representatives of European countries are very cooperative and help each other with information, advice etc.*

a. How much are you willing to support libraries which are planning to implement?

Austria: *The OBV comprises 90 academic and administrative libraries. At the moment there is only one library in Austria that is not a member of our network and has implemented RDA. We supported them by informing them about our implementation principles and how we changed the cataloguing format to accommodate RDA data. Documentation, training material etc. can be found at the RDA-Info-Wiki of the German National Library[2] - we contribute our documents to this wiki. Furthermore, we administer the access to the RDA toolkit for Austrian libraries (not only for OBV libraries). We participate in the German-speaking "supranational" RDA Toolkit consortium.*

The Netherlands: *We have set up a national RDA-helpdesk at the KB for all Dutch libraries with queries.*

b. How extensive do you find the co-operation on RDA issues between institutions that have implemented and/or are planning to implement?

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[1] see also: Aliverti, Christian / Behrens, Renate / Schaffner, Verena (2016): RDA in Germany, Austria and German-speaking Switzerland – a new standard not only for libraries. In:
JLIS.it, 7.2016,2, pages 253-278. Available online at: http://dx.doi.org/10.4403/jlis.it-11702
[2] see also: https://wiki.dnb.de/display/RDAINFO/RDA-Info

Austria: *So far, this co-operation is not very extensive except for discussions at the annual EURIG Members Meeting.*

9. What are your thoughts on the continuous development of RDA?

Austria: *There is still a lot to be done in terms of internationalization. And we do expect the FRBR-LRM model to be accommodated. We appreciate that it will be developed cooperatively and internationally.*

Italy: *The continuous development of RDA will cause managing problems in cataloguing activities. Particularly in the context of the network SBN, which is based on shared cataloguing model connecting almost 6.000 libraries.*

The Netherlands: *That is awkward, because not every library is willing or able to keep an eye on these changes and I fear that we will end up with many versions of RDA. Also, no library is going to re-catalogue if a rule changes, so even within one catalogue, you will see different interpretations.*

Slovenia: *Development of RDA is a good thing, but too many or too frequent changes are not welcome.*

10. How do you think RDA influences / could influence the international cataloguing sharing?

Austria: *The international data exchange was one of the reasons why the OBV decided to shift to RDA. So far we are still exchanging data with the partners we already shared data with before the transition to RDA.*

The Czech Republic*: The easiness of international cataloguing sharing was one of the main reasons for accepting RDA.*
Problem: the rules are too "free" - too many possibilities, so the records in various databases, all described according the RDA, may differ significantly.

The Netherlands: *I think that RDA will only work when every library implements full RDA, that is, including the distinction between Work / Expression / Manifestation. But, because of existing library systems that is going to be a challenge. Especially smaller institutions may decide to only partially implement RDA because of the costs involved.*

Poland: *The implementation of RDA on a global scale could help improve the uniformity of bibliographic data. This process could be impaired by allowing for many alternative solutions and "catalogers judgment".*

Slovakia: *RDA influences could have positive influence on the international cataloguing sharing globally.*

Slovenia: *Interoperability, cheaper cataloguing*

11. If you decide to implement RDA, would you be aiming for a full translation? Why, or why not?

Austria: *Cataloguers can concentrate on the changes in cataloguing practice and do not have to bother about rules in a language that is not their mother tongue.*

The Czech Republic: *We plan to translate the complete text of RDA later; rules are still changing frequently (even so important parts, as definitions of core elements etc.)*
Preparing to translate relationship designators.
Translated: terms for content/media/carrier type

Italy: *ICCU within its institutional tasks works on the development and dissemination of International cataloguing standards and guidelines, (modern books and non-book material) and is in charge of the dissemination of national and international standards. ICCU translated most of the international standards (ISBD, FRBR, RDA etc.)*
ICCU and the Italian translation working group is translating the new version of RDA and will do it also for the future updates. According to the Agreement signed with ALA, ICCU agree to supply the updates and changes of the text.

The Netherlands: *A complete translation would be too expensive, not only initially, but also in maintenance. Every time a change is made in the Toolkit, we would have to translate that section again. Besides that, most Dutch people can manage English well enough and the Dutch profile (that is, the choices made) is in Dutch.*

Poland: *Until now we have translated only some vocabularies (carrier types, media types, content types) because we are going to introduce fields 33X in our records.*

Slovakia: *We decided for full translation of RDA into Slovak language, because we need it for our librarian, the English terminology is different from Slovak and it could cause misunderstanding.*

Slovenia: *We do not think we would be able to translate the whole RDA (it would be very time-consuming and expensive) but we would probably try to do it. We haven't talked about it seriously yet.*

a. What were some challenges you faced during the translation?

Austria: *We had lots of discussions in the working group RDA about some terms and how to translate them into German, e.g. "aggregates".*

The Czech Republic: *Terms for type of material - for one English term may be in some cases difficult to find unique Czech term (disc/CD = disk; disc/analog = deska)*
Relationship designators - similar problem as in German: in Czech usually does not exist gender neutral form for title of a person (king/queen x sovereign; Czech: král/královna x panovník/panovnice)

The Netherlands: *RDA is very Anglo-American orientated and did not really fit into our 'old' practices, so we had to think harder how to manage those items.*

12. Do you think that the Anglo-bias in RDA has influenced the translation and implementation of the rules at your institution? In what way?

Austria: *Maybe it's more the "FRBR-bias": We had to get used to "Expression" and "Manifestation" - they were "transferred" 1:1 to German as there are no words to describe those concepts that would be more suitable.*

The Czech Republic: *Definition of terms - some terms are impossible or difficult to use in way "one to one".*

Italy: *The Anglo-bias in RDA is heavy, as regards terminology, type of materials and conditions considered, legal systems (e.g. for corporate and religious bodies) and almost all examples. The text as it stands is unsuitable for any use by cataloguers in Italian libraries.*

The Netherlands: *Yes, I think so. Not necessarily for the worse, but because you try to translate new rules, you will automatically inherit the practices of the original language. Not that Anglo-American are that far away from Dutch.*
Poland: *At this stage of our work we don't have any problems with "Anglo-bias in RDA". I expect that in future we could have some problems for example with the names of places.*

13. How important do you consider FRBRisation for your catalogue?

Austria: *FRBRisation is important for and implemented to some extent in the OBV's search engine: In 2009 Primo was implemented – a software capable of normalizing bibliographic records for front-end display.*

The Czech Republic: *We consider that FRBRisation is the way to use all potential of RDA, but for financial reasons we have not the possibility to work on it at present.*

Italy: *UNIMARC fields concerning Work are being implemented in the union catalogue; Expression level fields seem at present problematic to implement as they involve a deeper and not affordable modification in the structure of the shared catalogue.*

Poland: *FRBRisation is very important to us. We have started to work on this issue prior to the emergence of RDA and we will continue to work in this direction regardless of our approach to RDA.*

Slovakia: *FRBRisation we consider very important for our catalog. Its influence was positive for our decision about RDA.*

Slovenia: *We would like to FRBRize our catalogue but we believe we could do it without moving to RDA.*

a. Do you consider it as something related to the adoption/use of RDA? In what way?

Austria: *We do have "some FRBRisation" in our front-end display Primo already. Unfortunately, there are some limitations: the bibliographic records are not consistent enough to enable catalogue displays in accordance with FRBR, but we nevertheless have configured some algorithms to get "FRBR-like" work clusters.*
The decision to adopt RDA is related to that, as we hope that we will get better results in FRBRisation with RDA records.

The Netherlands: *FRBRisation is partly out of our control, because of OCLC and the migration to WorldCat. The KB realises it will happen, but that does not mean it is of vital importance for our own catalogue. It is, however, part and parcel of RDA and we have said yes to that, so FRBBR comes with it.*

14. What are your concerns, if any, when it comes to RDA?

The Czech Republic: *Its future development - if it is not too English-biased (both in language and in some practical areas as legal system etc.)*
Its use in library systems, formats

The Netherlands: *The constant development. I realise why it happens, but it takes a lot of effort to keep up with the changes.*

15. Do you have any other comments that you wish to add?

Italy: *It seems very unlikely that detailed cataloguing rules developed for a different community, with different traditions, standards, cultural habits, publishing patterns and library collections, would be of much use or utility for a different national library community of large size, as the Italian one.*
I think that, on the contrary, the international agreement on general cataloging principles is a very useful achievement for our community.

Slovakia: *Register of terms for relationships, which is in appendix K, is so brief and uncompleted for necessity to express relationship in personal authorities. In this appendix are missing basic term for identification particular family relations (e. g. mother, father, husband, spouse etc.)*

Appendix 8 – Email conversations
Communication with Ms. Tanja Buzina from the National Library of Croatia

From: Tanja Buzina [mailto:tbuzina@nsk.hr]
Sent: Friday, June 17, 2016 2:33 PM
To: Dilyana Ducheva <dilyana.ducheva.2015@uni.strath.ac.uk>
Subject: RE: Student inquiry about RDA

Dear Dilyana,

In 2014. The Croatian National Library (NSK) in collaboration with other libraires, archives and museums community have launched the project of creating new cataloguing rules based both on the national cataloguing tradition and on the international catalogung principles, standards and models (FRBR-Library Reference Model).

Nonetheless, the current economic situation would not allow many Croatian institutions to assume the costs (licenses of RDA Toolkit, training, etc.) of RDA.
So, NSK has decided not to adopt the RDA for the time being.

With kind regards,

Tanja Buzina, senior librarian
Head of Cataloguing Department of the National and University Library in Zagreb
(Croatia); URL http://www.nsk.hr; http://katalogizacija.nsk.hr ; e-mail tbuzina@nsk.hr;

Communication with Ms. Ana Savic from the National Library of Serbia

From: Ana Savic <ana.savic@nb.rs>
Sent: 09 August 2016 10:46
To: Dilyana Ducheva
Subject: Re: Student inquiry

Dear Dilyana,

Link below could help you to understand the history of our national cataloguing code. It is out of date but not quite. The base is strong and very good and that code reflects our fundamental cataloguing principles. It is based on AACR and ISBD. We were thinking about updating cataloguing rules but the question was is it economically to update old cataloguing code or to adopt another internationally accepted one. And we stopped. About RDA. We still don't have enough knowledge about RDA but bigger problem is lack of awareness about the importance of new standards and story about Web 2.0 and Library 2.0. And one more thing: many of our professionals concerned with cataloguing theory are retired and middle generation cataloger still do not have capacity to start up such a huge question and cope with it. Thats my opinion. Yes, I wrote about RDA and I called it "cataloguing per se", it seemed too complicated in 2012. Of course, my opinion changed and I realised the necessity of changes of our theory and practice in that way. This is short answer to your question. Please, be free to ask anything you want to know in details about this subject.

http://eprints.rclis.org/5369/

Best regards,

Ana

Appendix 9 – MARC record from the National Library of Ireland

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LEADER   01223nam a22003133 4500
    001  vtls000730266
    003  IeDuNL
    005  20160720142400.0
    008  160720q2015 xx 000 0 eng d
    020       |a 1906359911
    020       |a 9781906359911
    035       |a (OCoLC)945391543
    035       |a (OCoLC)ocn945391543
    039     9 |a 201607201424  |b Caroline Sheehan  |y 201607201423  |z Caroline Sheehan
    040       |a YDXCP  |b eng  |c YDXCP
    100   1   |a Meehan, Paula,  |e author.
    245   0 0 |a Imaginary bonnets with real bees in them :  |b a collaboration between the Ireland Chair of
              Poetry and University College Dublin Press /  |c Paula Meehan.
    260       |a Dublin :  |b University College Dublin Press,  |c 2015.
    300       |a 86 pages ;  |c 23 cm.
    336       |a text  |2 rdacontent
    337       |a unmediated  |2 rdamedia
    338       |a volume  |2 rdacarrier
    650     0 |a English poetry  |x Irish authors  |y 20th century  |x History and criticism.
    650     0 |a English poetry  |y 20th century  |x History and criticism.
    650     0 |a Bees  |v Poetry.
    949       |a VIRTUAITEM  |d 90000  |g 90000  |x 1  |6 34444102046471  |a 16A 2592
    955       |a CLS
    999       |a VIRTUA
    999       |a VTLSSORT0080*0400*0200*0201*0350*1000*2450*2600*3000*3360*3370*3380*6500*6501*6
              502*9550*9992
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Appendix 10 – Summary table of European countries and RDA

	RDA Status	AACR	National-level decision
Eastern Europe			
Bulgaria	showed interest	no	yes
Czech Republic	implemented	yes	yes
Poland	not interested/other options	no	yes
Slovakia	process of	yes	yes
Ukraine	showed interest	no	yes
Northern Europe			
Denmark	considering	yes	yes
Estonia	showed interest	yes	yes
Finland	implemented	yes	yes
Iceland	implemented	yes	yes
Ireland	Implemented*	yes	no
Latvia	implemented	yes	yes
Lithuania	showed interest	yes	yes
Norway	process of	yes	yes
Sweden	process of	yes	yes
United Kingdom of Great Britain and Northern Ireland	implemented	yes	no
Southern Europe			
Croatia	not interested/other options	no	yes
Italy	not interested/other options	no	yes
Portugal	considering	no	yes
Serbia	showed interest	no	yes
Slovenia	considering	no	yes
Spain	considering	no	yes
Western Europe			
Austria	implemented	no	yes
Belgium	considering	unknown	unknown
France	not interested/other options	no	yes
Germany	implemented	no	yes
Luxembourg	considering	yes	yes
Netherlands	implemented	no	yes
Switzerland	implemented	yes*	no

Based on UN's geographical division (UN Statistics Division, 2013) available at
http://unstats.un.org/unsd/methods/m49/m49regin.htm#europe (Accessed July, 2016).