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The use of the Dewey Decimal Classification (DDC) for the organisation of national bibliographies: Switzerland and Germany/Austria

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Abstract

The paper describes the efforts of three national libraries to use the DDC to improve access in German to the national bibliographies of Switzerland, Germany and Austria. The reasons that led to the use of the DDC for the organisation of the bibliographies and the difficulties in adopting a common approach will be explained. The paper will deal with the approach of using the Second Dewey Summary and the adaptations made to suit the bibliographic requirements of each country's bibliography. The presentation will also explain the challenges of incorporating German requirements in the new outline of the different series of the Deutsche Nationalbibliografie and will show how these were successfully resolved.

Introduction

National libraries and agencies responsible for ensuring bibliographic control and issuing national bibliographies have faced many new challenges in recent years. The growing demands for making national bibliographies accessible through the Internet and the need to extend bibliographic control to Internet and Web documents have been issues that many

national agencies have had to deal with, at least since the end of the 20th Century. The shift to making national bibliographies available online or through the Internet was well documented in Unni Knutsen's 2001 survey¹. By 2003, 32 national bibliographic agencies were already making their bibliographic data available through the Web². At the same time, the issue of extending bibliographic control to electronic document on the Web and in particular Internet sites has also forced national libraries and bibliographic agencies to consider changes in legal deposit regulations and undertake studies on how to bring electronic documents under bibliographic control. Michael Gorman had already put the issue of bibliographic control of electronic resources on national libraries' agendas at the 2001 IFLA Conference³ and Marcelle Beaudiquez had proposed some solutions for the selection and capture of Web sites for inclusion in national bibliographies⁴.

While much attention has been given to these issues, some others raised in the International Conference on National Bibliographic Services (ICNBS) held in Copenhagen in November 1998⁵ were also being tackled by national libraries. The organisation and efficient information retrieval of data in national bibliographies have been and should always be a constant concern. As more and more national bibliographies are issued in electronic formats, the issue of arranging the bibliography in a "user-friendly" way and ensuring an efficient subject access to records is needed more than ever. The long standing UNESCO and IFLA recommendation to arrange the bibliography according to an international classification scheme has been progressively accepted and implemented. It is in this context that three national libraries decided to work together to develop a common Dewey Decimal Classification (DDC) arrangement for the national bibliographies of Austria, Germany and Switzerland.

This presentation will deal with this project to use the DDC to improve access in German to the national bibliographies of Switzerland, Germany and Austria. The reasons that led to the revision of the existing arrangement and the difficulties in adopting a common approach will be explained. In particular, the presentation will describe the experience of the Swiss National Library in using the 100 divisions and the results obtained. The challenges of incorporating existing domains in the new DDC categories in the national bibliography of Die Deutsche Bibliothek will be explained in detail.

DDC at the Swiss National Library

In the 1990s, the Swiss National Library (Schweizerische Landesbibliothek) undertook a major reorganisation of its operations and structures in order to improve its delivery of goods and services. Part of these changes involved the improvement of bibliographic access to the collections. Many of the bibliographic practices of the library had not kept up with current international standards and thus needed to be reviewed. This evaluation led, for example, to the introduction of USMARC (now MARC21) in 1993 as the communication format for its library automation system, to the replacement of the indexing system based on the UDC by the Schlagwortnormdatei (SWD) and the Regeln für den Schlagwortkatalog (RSWK) in 1998 and more recently to the use of the Anglo-American Cataloguing Rules (AACR2) for descriptive cataloguing.

In 1998, a study was conducted to select a classification scheme that would be used to organise and arrange documents in new public access collections being developed at the Swiss National Library. The study also looked at how a new classification scheme could be used for the systematic organisation of the national bibliography, Das Schweizer Buch (SB), that was organized at that time according to 24 subject categories (Sachgruppen). Revision of

the bibliography was planned in 2001 for the one hundredth anniversary of the bibliography and the goal was to select a scheme that would meet IFLA and UNESCO recommendations.

The decision to adopt the DDC as the classification standard at the Swiss National Library was officially taken in September 1999. Work started in early 2000 to modify the overall redesign of the national bibliography in time for the 2001 edition. An analysis was conducted to evaluate the classification arrangement requirements of the bibliography. The bibliography is published twice a month in a printed version and lists about 25'000 titles per year. There are 25 issues annually, issue 16 contains records of music sheets and issue 25 provides a cumulative list of serial publications. The printed version of the bibliography is available by subscription and with this service clients can access an online pdf format of the bibliography. The Library is presently planning an improved online access to the bibliography.

Based on the annual output of the bibliography, it was decided that the Dewey's Second Summary (Hundred Divisions) would give an appropriate subject access to the records in the bibliography. Two modifications to the standard 100 classes were made; 914.94 (Swiss geography) and 949.4 (Swiss History). The decision to use the standard organization of the DDC was motivated by two factors; the national bibliography is a bibliographic tool used by librarians and booksellers and should thus promote the correct use of standards and secondly, the use of the DDC in the bibliography should reflect the application of the scheme used at the library for its open stacks collections where all of the classes are represented. The issue 16 that lists sheet music uses a more precise Dewey outline. It contains deeper hierarchical levels below the Third Summary in 782, 784-788 and these were developed on the basis of the literary warrant.

The 100 classes are displayed in 5 languages (German, French, Italian, Rhaeto-Romanic and English) in the bibliography. The French, Italian and English versions were taken from the respective DDC21 versions. The German version was prepared in collaboration with Die Deutsche Bibliothek and the Rhaeto-Romanic version was prepared by staff at the Swiss National Library. The outline is used according to a licence agreement between the Swiss National Library and OCLC-Forest Press.

The task of assigning class numbers to the documents listed in the bibliography was assigned to the descriptive cataloguers. In the process of cataloguing documents for the bibliography, it seemed more efficient that they continue assigning the appropriate class for each document as they had done for the previous arrangement. A training programme and support tools were developed and by November 2000, the cataloguing staff was ready to use the Dewey classes. The subject indexing staff worked closely with the cataloguers to guide and revise the work. Periodic quality checks were done and in general the quality level was quite high. On average, the percentage of documents classed wrongly (within a main class or outside a particular class) has ranged between 5 –7% in each of the quality controls. Instructions to cataloguers are updated regularly in order to maintain and improve the quality level.

In 2002 and 2003, an analysis of the distribution of documents within the Hundred Divisions was conducted. The goal was to find out how the classes were used and if more precise classes should be added. The survey indicated that four main classes accounted for almost 75% of documents listed (300, 600, 700 and 800). More precisely, documents classed in the following 10 classes accounted for about 47% of documents listed: 150 (2%), 330 (6%), 340 (6%), 360 (6%), 610 (8%), 620 (2.5%), 790 (3%), 830 (8%), 840 (3%), 910 (2%). The survey clearly showed that documents were not spread out evenly in all of the classes and that while

some classes could be merged (100-140, 160-190), others could benefit of more specific numbers (i.e. 333, 791, 792, 795, 796). This distribution of documents across the DDC classes reflects the Swiss publishing output and the content of Swiss National Library collection. This information is being used to evaluate the DDB outline proposal for its bibliography.

DDC in the German national bibliography

Die Deutsche Bibliothek (DDB) decided to use a new scheme based on DDC for the Deutsche Nationalbibliografie (DNB) beginning with the bibliographic year 2004. This scheme is nearly the same as the one used in Das Schweizer Buch with notable exceptions in the geography and history notations. In the German national bibliography (DNB), geography of Germany is classed under 914.3 and German history is under 943 while in the Österreichische Bibliografie, Austrian geography is under 914.36 and history of Austria under 943.6. The Österreichische Nationalbibliothek (Austrian National Library) decided to follow the decision of DDB in 2004 and change to DDC at the same time, together with the complete reorganisation of the Austrian National Bibliography (ÖB) which is only available in an electronic version since this year. Other more substantial discrepancies will be presented and commented in the following pages.

The German national bibliography (DNB) is available in printed form as well as in pdf and html versions. The main series DNB, Reihe A is a weekly list for all documents from the publishing houses and listed about 106'000 titles in 2004. Other smaller series consist of titles from institutions and companies and grey literature (series B, issued also weekly), of university publications (series H, issued monthly) and maps (series C, issued quarterly) and of two series for printed (series M) and recorded (series T) music, both issued monthly.

Two main reasons were responsible for DDB's decision to turn to Dewey for the organisation of the national bibliography. The first and most important was an initiative of German academic and university libraries to translate DDC and integrate DDC services in German bibliographic and online activities based on a feasibility study on Dewey in German libraries published in 2000.⁶ DDB took over the responsibility for initiating a DDC German Consortium, for the raising of funds for the translation and for the negotiations with OCLC and the German publisher, the K.G. Saur GmbH. So it seemed natural that DDC should also be part of DDB's activities in the field of classification as soon as possible. And this of course led to the second reason for turning to Dewey in the national bibliography: since 1982 the three German-language countries had used two different systems for organising their national bibliographies and with the adoption of Dewey in Das Schweizer Buch (Swiss National Bibliography) all three were different. This situation was seen as a constraint for the exchange of data and for the use of the bibliographies. Growing international acceptance of Dewey for national bibliographic services and the varieties of DDC applications in national bibliographies⁷ convinced DDB that a change to Dewey would improve the national bibliographic services and facilitate cooperation with foreign national libraries.

The Swiss and Austrian scheme of 24 subject categories in the national bibliography had already been given up in the Federal Republic of Germany since 1982. The increase in book production in Germany and the development of new disciplines and users' and librarians' needs for precise access in the weekly lists made it necessary to establish a more specific arrangement of titles. A classification arrangement of 65 subject categories based roughly on the arrangement of disciplines in the Universal Decimal Classification, but without using UDC notations was established. The classification made it possible to separate the different

language families such as English, German, the Romanic, Classical and Slavic languages, to give access to new subjects such as environmental sciences, social and economic history and a more detailed organisation of technology with the different branches of engineering sciences. Based on literary warrant and following academic libraries' wish to exclude less "serious" publications in the fields of esoteric, occultism and parapsychology as well as comics and cartoons, two new extra subject categories for esoteric subjects and for comics and cartoons were added in 1993.

DDB evaluated the possibility of using the DDC scheme used by the Swiss National Library for Das Schweizer Buch. The goal was to use it without giving up some of the advantages the 65 categories scheme developed between 1982 and 1993 had brought. In particular, that scheme gave fairly specific access to titles and was considered quite efficient for the selection process. In many categories, there was a good match between the second Summary of Dewey and the former subject categories (as in all fields of science) or even more specific, especially in fields where literary warrant was already high. In other cases, the subjects were split in different disciplines. The separation between language and literature in the language families (in UDC in one class) or the splitting of economics in the more general and academic class 330 and the more practical class 650 Management (mainly covering the so-called Betriebswirtschaft in German) caused some concerns in providing the same type of access for book selection. There were also cases where specificity could not be retained within the structure of the 100 divisions. The most difficult is the melting of all branches of engineering sciences into one general class 620 and even considering the use of more specific third Summary of Dewey would not have solved the problem. The discipline base arrangement does not correspond with modern disciplines, such as electrical engineering and electronics, mechanical engineering or environmental technology that had been separate subject categories in the DNB until 2004. Another serious loss to university and state libraries of Austria, Southern and Eastern Germany was the specific class for Slavic languages and literature that disappeared in the more general categories of 490 and 890.

Modifications of the Second Summary in the DNB

A questionnaire was sent out to the customers of the DNB in spring 2003 in order to inform them of the planned change to Dewey and ask if the disadvantages mentioned above were acceptable and which other wishes for special arrangements, not necessarily part of the Second Summary and the Swiss scheme, should be followed. Out of 450 customers nearly 200 answered, and one general vote was for exclusion of school textbooks and juvenile literature from the Dewey arrangement. The DDC practice of classing all kinds of educational material with the subject and fiction for children with the language-based literature seemed to be of little use for librarians and book trade. It appeared that these categories of documents are better accessed by verbal subject access where the type of document can be retrieved. Another proposal favoured by most respondents was the division between literary history and criticism on the one hand, and fiction on the other hand. In a rough arrangement of 100 subject categories, the precision Dewey offers in the 800 by using Tables 3A and 3B could not be duplicated. More importantly, in all of the subject categories for American, English and German literature, the secondary literature would be lost among masses of fiction titles, most of them of little or no interest for academic libraries and users of the bibliography. The introduction of a letter B (for Belletristik = fiction) makes it possible to separate between 830 (Literary history and criticism of German literature) and 830;B (German fiction) and the same for the other literatures within the main 800 class.

Another modification that was introduced in reaction to the respondents wishes and in respect to literary warrant was the adoption of a flexible application of the general scheme “Second Summary” where in cases it was either too general or too specific in scope. The case of the 790 already mentioned in connection with the Swiss National Bibliography is a good example. The main class 790 “Sports, games & entertainment” which includes topics like film, broadcasting, theatre, dance have considerable literary warrant and is important for academic and special libraries, for archives of broadcasting companies, film archives etc. Therefore DDB decided to use an organisation based on the 1000 Dewey sections and particular sections such as 791 (Film, broadcasting, public performances), 792 (Stage performances), but afterwards combine 793-795 in 793 (Games) and 796-799 in 796 (Sports). The number of publications in DNB, Series A for 2004 demonstrated the relevance of this arrangement: 507 titles in 791, 220 in 792, 230 in 793 and 1’153 in 796. Access in one class only would have meant considerable extra work for selectors looking for titles in one of these subject domains.

The organisation of divisions within particular classes was also problematic for a completely different reason than the one of specificity. There are cases when the Dewey Second Summary is too precise. This problem occurs for the records created by the New Release Service, a bibliographic service of the DNB connected with CIP. This service receives very sketchy information from publishers regarding the content of forthcoming books. As DDB does not usually receive either a table of contents or an abstract from publishers, it is often nearly impossible to decide in which of the Second Summary divisions the titles should be assigned. This occurs mostly in the areas of philosophy and religion where title information also tends to be unspecific, fanciful or just useless in determining the subject. After consulting the Dewey editor on these modifications, an arrangement was made which combines all philosophical classes from 100-120, the 140, and again 160-190 in one general class 100 (Philosophy in the First Summary) and thus avoids also the separation of this subject by two different others, class 130 (Parapsychology & occultism) and class 150 (Psychology). Religion proved to be a similar case because it is not easy to subdivide the 230-280 classes by knowing only the titles of publications; so a one general class for religion 200 (including 210) and the categories 220 (for the Bible), 230 (including all classes up to 280) for Christian religion and theology and 290 for the other religions make a useful subdivision for German librarians who anyhow find the Dewey arrangement in the 240, 250, 260 and 280 classes rather inappropriate for German theological traditions.

The use of Dewey in the music series for printed and recorded music in the DNB

The decision to use Dewey for the organisation of all the DNB bibliographic series meant that particular solutions had to be found for special types of documents. This is the case for two DNB bibliographic series; series M which lists printed music (Musikalien) and series T which lists recorded music (Tonträger). Both series had been organised by a special scheme different from the main one used in the other series. The decision to apply Dewey to these two musical series meant that a more specific application should be developed in order to offer a meaningful access to titles for music librarians. It also became apparent that a straight application of Dewey hierarchies could not be easily adopted. After doing a comparison with the previous musical scheme it was determined that a Dewey application using between four and six digits seemed to be the most appropriate method of organising the bibliographic series. At the same time, the new scheme had to take in account the specificities of both series. The interest in printed music (Series M) is mainly determined by aspects of musical forms, voices, instruments and size of ensembles, and for recorded music (Series T) it is the

musical styles and traditions, the ethnic or national origin and the need to organise the high number of items in popular music that seemed to be more important.

The schemes for both series were developed in close contact with OCLC. This proved necessary not only because of the Dewey editors' rich experience and knowledge in this field but also to give advice in the context of the OCLC licence restrictions. The licence usually does not allow showing headings and class numbers together on hierarchical levels below the Third Summary. In the end, the decision was made to use a scheme of 51 subject categories in series M, which contains deeper hierarchical levels for sections 782 (vocal music) and for sections 786-788 (various kind of instruments). Series T did not need separate notations below the level of four digit numbers for the instruments in 786-788 and only five classes were needed for the different kinds of vocal music. After long discussions with the classifiers in the Deutsche Musikarchiv (German musical archives, the music collection of DDB situated in Berlin) it was suggested that a more detailed organisation of class 781.64 (popular music) would be needed. But due to limited personnel resources and the fact that popular music CDs, records, cassettes and DVDs do not offer enough information concerning musical styles, 781.64 was not developed.

Problems with Dewey principles and Dewey's view on certain subjects

The broad Dewey arrangement of the DNB based on the Second Summary introduced in 2004 was a first step in the introduction of the DDC. Acknowledging that such a broad classification would not satisfy users' bibliographic needs, the DDB is planning to introduce full Dewey notations for titles listed in the DNB in a two-stage process during two years, beginning with the bibliographic year 2006. During that year, the German print edition of DDC 22 will be published and an online service called Melvil will be available. That online service will consist of a classification tool, MelvilClass, a German version of WebDewey, and a retrieval tool MelvilSearch which will offer German language access to classified documents in German libraries by browsing in Dewey categories as well as by precise search with all German index entries of DDC 22.

Some of the problems described in the implementation of the Dewey arrangement of the DNB will be solved when Dewey numbers at full length can be used for retrieval purposes. In working with the full Dewey, the German classification experts found some limits in the development of Dewey in some disciplines. For instance, the fact that subjects can be distributed in different disciplines and does not allow for these titles to be listed in one discipline was a cause for concern. The evolution of disciplines such as archaeology or environmental studies since the end of the 19th century where new objects of research has changed the way the discipline should be organised and a broad classification would give insufficient access to documents in these disciplines.

In the field archaeology, archaeologists concentrated on classical archaeology for a long time, and the position of the discipline within the history of the ancient world in 930.1 seemed natural. However, many fields of research on different continents (such as Africa and Latin America) and in different ages (like medieval archaeology in Europe) have changed the focus of the discipline. These different fields of research are organised in many classes in Dewey. And even from the beginning many archaeological studies have been classified with the objects they described in classes like the 722 (Architecture from the earliest times to ca. 300) or the 733 for ancient sculptures. For German librarians expecting to find everything under archaeology, there is not one Dewey subject category for archaeology assembling all titles on

that discipline. Retrieval methods will have to be developed in order to lead users to the titles in the different classes covering their field of interest such as the 722, the 733 or certain parts of pre-Columbian archaeology in 972.01 (Mexico) or 985.01 (Peru).

Environmental research can be split up in many disciplines. Dewey has classed most aspects which are not strictly scientific or technological in economics (DNB subject category 330) and social services and problems (DNB subject category 360). The former DNB scheme had a specific subject category Umweltschutz (environmental protection) that had additional entries in other disciplines such as life sciences, environmental engineering, political science etc. According to Dewey, all titles on environmental research are split up among these subjects and it is only by using full Dewey notations that users will have the possibility of accessing all classes connected with problems of environment. Retrieval using captions with search verbal search elements such as environment- (Umwelt-) and pollution will be able to overcome the constraints of discipline-based classification of subjects.

Another problem to be solved in the DNB was how to use Dewey notations for interdisciplinary documents. As Dewey was originally developed as a shelving system to allocate only one notation for a document, work was undertaken to develop rules for assigning more than one Dewey number. The approach used by the SNL in assigning documents to only one category was discussed and in the end, it was decided to take a different approach and assign up to two or three numbers to a document. This approach was chosen in order to guide German users to subjects classed in disciplines that would not be obvious according to German academic traditions or points of view. The additional title entries mentioned above were made in the DNB and also in the Austrian national bibliography Österreichische Bibliografie (ÖB) in cases where a document is interdisciplinary or could be interesting for librarians or scholars in different disciplines. These so-called Nebensachgruppen consisted only of a short entry author/title and the identification number of the title so that users can be directed to the main subject category where the complete bibliographical description, including subject headings, can be found. The ÖB has given up the printed issues and is published only in an electronic version since 2004; so it is no longer necessary to make a distinction between main and additional entries in subject categories. If necessary the title can be found in two or three subject categories. DNB continues to be published in printed form and thereby needs to save space by distinguishing between main subject category with the full bibliographic description of the title and one or two possible short entries in additional Nebensachgruppen.

To make sure the Dewey numbers are assigned and understood correctly, a manual for classifiers as well as for clients was established. It describes the position of all subjects and the content of the classes in the Dewey arrangement of the DNB, and also topics and situations where Nebensachgruppen are allowed or useful. The manual includes an index with about 3'500 entries of search terms by topics, type of documents and genres which had been proved to be necessary for the classifying of German-language publications in the 100 Dewey subject categories.⁸ This list should not be considered as an abridged form of the Relative Index. The so-called Hauptsachgruppe (the place of the main and full entry of the title) will always correspond to the full Dewey number used for classification according to the international DDC practice.

In a few cases, the German application of the DDC will also allow to classify with a second or third notation but as this classification is a more time-consuming process than the pure grouping of titles in subject categories, this will only be done if it seems to be absolutely

necessary from the classifier's point of view and knowledge of German users' expectations. One typical case is the event celebrating the 60th anniversary of the end of World War 2. A huge number of books about the war, about air-raids on German towns, the holocaust and the liberation of the concentration camps were published in a rather short period and it became important to organise the documents more precisely. All these publications receive the DDC subject category 940 as Dewey assembles all these topics within notations in the 940.53 classes. But from a German point of view many of these topics also belong to class 943.0862 and 943.0864 under the broader subject category 943 (History of Germany). The possibility to use a second or third subject category and, for detailed classification, even add a second or even third full Dewey number makes it easier to adjust the classification according to particular literary warrant and perceived users' bibliographic needs.

Conclusion

The cooperation between three national libraries in establishing a common approach in developing access to their national bibliographies was an enriching experience. While each national library chose to adjust the classification to their particular needs and according to literary output, there was a genuine spirit toward achieving a consensus approach. The mutually influenced classification approach adopted by each library is a good basis for future development. The results achieved demonstrate the commitment toward the use of the Dewey Decimal Classification in the three countries and with the publication of the German language version of DDC22 in 2006, it is easy to foresee many more cooperative initiatives between the three libraries.

Notes

¹ Unni Knutsen, « Electronic National Bibliographies: State of the Art Review », 69th IFLA General Conference and Council, Meeting 86. <http://www.ifla.org/IV/ifla69/papers/109e-Knutsen.pdf> (4 August 2003). Seen May 19, 2005.

² Juha Hakala, « Future role of (Electronic) National Bibliographies », 69th IFLA General Conference and Council, Meeting 86. <http://www.ifla.org/IV/ifla69/papers/155e-Hakala.pdf> (4 August 2003). Seen May 19, 2005.

³ Michael Gorman, « Bibliographic Control or Chaos: An Agenda for National Bibliographic Services », 67th IFLA Council and General Conference, Meeting 133. <http://www.ifla.org/IV/ifla67/papers/134-133e.pdf> (21 August 2001). Seen May 19, 2005.

⁴ Marcelle Beaudiquez, « The Perpetuation of the National Bibliographies in the New Virtual Information Environment », 69th IFLA General Conference and Council, Meeting 86 http://www.ifla.org/IV/ifla69/papers/142e_trans-Beaudiquez.pdf (21 August 2001). Seen May 19, 2005.

⁵ «The Final Recommendations of the International Conference on National Bibliographic Services, ICBNS, Copenhagen 25-27 November, 1998». <http://www.ifla.org/VI/3/icnbs/icnbs.htm#1> Seen May 19, 2005.

⁶ «Einführung und Nutzung der Dewey Decimal Classification (DDC) im deutschen Sprachraum«, vorgelegt von der Arbeitsgruppe Klassifikatorische Erschließung im Auftrag der Konferenz für Regelwerksfragen, Frankfurt am Main, 2000.

⁷ Bell, Barbara L.: „The Dewey Decimal Classification system in national bibliographies“, in: Dewey Decimal Classification, edition 21 and international perspectives, Albany, New York, 1997, p. 43-58.

⁸ „DDC-Sachgruppen der Deutschen Nationalbibliografie, Leitfaden zu ihrer Vergabe“, Frankfurt am Main, Die Deutsche Bibliothek, 2004.