

IFLA Satellite Pre-Conference of the Classification and Indexing Section
“Looking at the Past and Preparing for the Future”
Florence, Italy, 20-21 August 2009



Dewey in Sweden : leaving SAB after 87 years

Magdalena Svanberg
National Library of Sweden
magdalena.svanberg@kb.se

Abstract

The National Library of Sweden has decided to switch from SAB, the Swedish classification system, to Dewey Decimal Classification (DDC). Several research libraries have decided to follow and a switch is also discussed among the public libraries. This paper explains the reasons for the decision, gives the background and reports on the current Swedish DDC project, were mappings between SAB and DDC and between the Swedish subject heading language Svenska amnesord and DDC are important parts.

Decision to switch to DDC

In late 2008, the National Library of Sweden decided to switch from SAB, the Swedish classification system, to Dewey Decimal Classification (DDC). This far, fifteen research libraries have decided to follow The National Library in the switch, and more decisions are expected. Among the libraries that made a formal decisions are all big general university libraries, and it seems likely that a joint switch to DDC is on its way in Sweden, at least among the research libraries. This is a unique situation, with the libraries of a country together abandoning a national scheme, used and maintained solely within their country, and adopting an international one.

When it comes to the public libraries, no library made a formal decision yet, but some big libraries have expressed interest in a switch. The Swedish Library Association has stressed the importance of using the same classification system throughout Sweden, and as a consequence of the decision at the National Library, recommended that Swedish libraries in general consider adopting the DDC. A proposal at the annual meeting of the association demanded a more exhaustive analysis of the consequences of a switch for the public libraries. Special consideration should be taken to the children's perspective. The proposal got a majority at the meeting.

Bibliotekstjänst, the company selling bibliographic records to most public libraries in Sweden, has stated that they will add DDC numbers to the records if there is a demand for it among their customers. They also stated that they plan to continue offering SAB codes and use both schemes parallel for a long period.

This paper gives the background for the decision and reports on future DDC plans. It is about how we are looking at the past and preparing for the future.

Creating SAB

In the beginning of the 20th century, the question of national and international classification schemes was on the agenda in many countries. In Scandinavia, Finland and Denmark decided to develop their own national classification schemes, based on UDC (Universal Decimal Classification) and DDC respectively. Norway chose the most international path and started to use DDC, let it be in an adapted Norwegian versions. Sweden took the most national approach and decided to develop a classification scheme of its own. The main reason was the

possibility to get a scheme well adapted to Sweden and Swedish phenomena. The notation was another reason. The DDC numbers were considered long and difficult to use, and the choice to develop a new scheme made it possible to base the notation on letters instead and try to keep the length down. (Hansson 1997)

The Swedish classification scheme *Klassifikationssystem för svenska bibliotek*, generally known as SAB, was first published in 1921 and came to be used by all public libraries and in the national bibliography already in the 1920ies. By the 1960ies it had also been adopted by the national library and most research libraries. According to numbers in a Catalogue survey conducted in 2006, SAB codes are found in 67 % of the records in LIBRIS, the Swedish union catalogue.

Maintenance of SAB

Five editions of SAB were published between 1921 and 1963, but only some of them included major revisions. The situation was analysed in a report 1981 (Delegationen för vetenskaplig och teknisk informationsförsörjning (1981)). Due to lack of maintenance and revisions, SAB had become outdated. If SAB should have a future, there was a need for a throughout revision. Another alternative to consider was a switch to an international classification scheme: DDC, UDC (Universal Decimal Classification) or LCC (Library of Congress Classification). A switch to an international scheme would eliminate the need for maintenance of a national classification scheme. In this report, the possibility to use the classification codes in foreign bibliographic records was also mentioned as an advantage.

The negative effects of a switch would be problems with the shelving and with keeping two classified catalogues with different classification schemes. This was considered to be most of

a problem for the public libraries, since the research libraries would probably handle the difference between the catalogue and the shelving more easily. Even though the report listed several advantages in using an international scheme, the conclusion was that too much effort was needed to make a switch to an international classification scheme possible, and that a throughout revision of SAB was the best way to go. To avoid similar situations in the future, the importance of regular revisions of the scheme was stressed, with a new SAB edition expected to be published every ten years and minor changes in between. The sixth edition was published in 1984 and the latest edition, the 8th, in 2006.

Cooperation - nationally and internationally

Cooperation on bibliographic control has along history in Sweden, but when it comes to subject access, there has been a lacking interest among Swedish libraries during some periods. Every Swedish library applied subject headings and classified using their own principles, stressing the specific needs of their users. A bibliographic record could contain several slightly different SAB codes and several slightly different subject headings, using different synonyms or constructed in different ways.

A lot of changes in the area of bibliographic control took place in Sweden around the turn of the millennium. The format in LIBRIS changed, from a Swedish adaption of UK MARC, called LIBRISMARC, to MARC 21 and a new library system, Endeavor Voyager, replaced an old solution. International principles for authority works were adopted. The new library system made it necessary for the libraries to collaborate on subject access. This, together with efforts made for example by the Section on Bibliographic Cooperation and Development resulted in a different approach: every work is classified once and subject indexed once, using the subject heading language Svenska ämnesord (SAO). It turned out that the differences

between users of different libraries were not so big after all. The work on SAO also proved that international cooperation was possible, saved resources and gave better access. More on the development of SAO, a Swedish subject heading language based on international principles and Library of Congress Subject Headings (LCSH), is reported in Berg and Leth (2004) and Berg and Leth (2008). All these changes were important steps towards international cooperation since it made exchange of records easier and showed the value of using international standards.

Why DDC?

In the last decades there has been a growing international interest in DDC once again. DDC is now used in more than 135 countries and has been translated into a diversity of languages, Norwegian, Vietnamese and German just to mention a few. This international interest spread to Sweden, as many Swedish libraries were no longer satisfied with a national classification scheme that made international cooperation impossible. There has also been a growing discontent with SAB, especially among research libraries. SAB is not updated frequently enough, and the level of specificity provided is not satisfying for libraries holding big collections.

In 2005, the National Library of Sweden invited Joan Mitchell, OCLC and Unni Knutsen from Norway to hold a seminar and a week-long course. This increased the interest in DDC, and placed the question firmly on the agenda. A feasibility study of a Swedish switch to DDC was treated as part of the Catalogue Survey, conducted by the National Library of Sweden in 2006 (Svanberg 2006).

The study came to the conclusion that there is a lot to be said for a Swedish switch to DDC. The most important argument is that a switch will make international cooperation easier. When Sweden starts using an international classification scheme we can use classification data in foreign bibliographic records. This will save a lot of resources. More than 80 % of the foreign literature bought by Swedish research libraries is published in countries where the national bibliography uses DDC. When Sweden switches to DDC there will be no need for us to classify those works. The need to spend resources on maintenance of the classification scheme will also be reduced.

DDC is widely used in bibliographic records, and it is also widely used in mappings between different knowledge organisation systems. DDC and LCSH together with the French subject heading language RAMEAU, the German subject heading language SWD and several others form a network that encompasses a great part of the world's literature and other documents.

With a Swedish translation of DDC, and mappings between SAB and DDC and between SAO and DDC, Sweden and the Swedish literature will also be part of this network. By making the different knowledge organisation systems and the library data available on the Semantic web there is also a potential of an even bigger network, not restricted to libraries but with wider usage and relationships. Both SAO and LIBRIS are available on the Semantic web, and so are LCSH and RAMEAU

Giving up SAB

One of the pros of a national classification scheme is that it is tailor made to suit the needs of the libraries in the country. In many cases, SAB works very well for Swedish books about Swedish phenomena. There is a class in SAB for the winter sport bandy, traditionally an important sport in Sweden. There is a class for reindeer herding, the traditional lifestyle of the

Sami people in the north of Scandinavia and Russia. However, luckily enough not every book in Swedish libraries is Swedish and not every Swedish book is about Swedish phenomena.

Sweden is a part of the world. Cricket, the typical Anglo-American game, has no class of its own in SAB, since the game has not been commonly played in Sweden. However, in LIBRIS, the union catalogue of the Swedish research libraries, the number of hits for cricket approximates the number of hits for bandy.

A specific library can also have needs that are not catered for well by SAB. The Nordic Africa Institute Library does not hold a single book on reindeer herding, but numerous on camel husbandry. Camels as domestic animals do not fit well into the SAB structure but are lumped together with silk worms, homing pigeons and yaks under the caption Miscellaneous domestic animals. In DDC, with its international usage, camels as domestic animals have their own number close to llamas and bisons.

Of course there are also more complicated examples, where the Swedish viewpoint will be hard to give up. I suspect that most Swedes would not agree on the DDC division of political works on socialism, communism, Marxism and social democracy, where Marxism and social democracy are very close to each other. No one is clearly right or wrong on this, but we have to work hard together to reach a classification scheme that is both consistent and hospitable to different points of view. Some important work in this aspect will take place in the European DDC Users' Group.

SAB is in a way a very flexible classification scheme since there are few strict rules and no limitations on the possible number of SAB codes in a bibliographic record. This has some advantages since it makes it possible to express different aspects of a work in the

classification. It does however also have disadvantages. The possibilities to add several SAB codes have been used to an extent where the added SAB codes add very little value. It has been used as a replacement of subject headings, even in cases where subject headings would form much better access points.

SAB has, finally, often been used in a very inconsistent way. This means that we are welcoming the more strict rules of DDC, and that we plan to pretty much stick to the old rule of one DDC number per record, even though new developments in the MARC formats open up for the use of additional DDC numbers.

The Swedish DDC project.

The Swedish DDC project started in June 2009. The major parts of the project are:

- Translating DDC to Swedish using the mixed model
- Mapping the Swedish subject headings in Svenska ämnesord (SAO) to DDC
- Updating and revising the existing conversion table SAB-DDC
- Training of librarians
- Developing tools that makes it possible for the end user to benefit from the classification data for subject access

The mixed model is explained in detail in Mitchell, Rype and Svanberg (2009), and the training and development of tools are still under planning. Therefore, the rest of this paper will concentrate on the mapping parts of the Swedish DDC project.

Mapping Svenska ämnesord (SAO) to DDC

The project includes mapping of the Swedish subject headings SAO to DDC. The mappings will serve several purposes:

- serve as an entry vocabulary to DDC for both librarians and end users
- be one of the sources for the terminology in the Swedish translation of DDC, both for the content in the schedules and for the index,
- be used behind the scene in retrieval systems to improve subject retrieval

There are about 30 000 main headings in SAO, and another 10 000 authorized precoordinated combinations of main headings and subdivisions. The focus of the mapping part of the project will be to map the most used of these subject headings, together with other common combinations of main heading and subdivision. There are plans to use data from the Swedish union catalogues LIBRIS to show the frequency of a certain subject heading.

There are existing mappings that could also be used to get automatic mappings to revise manually. Almost all main headings in SAO are mapped to SAB, and about 75 % of the headings are mapped to LCSH. One possible path would be from SAO to LCSH and then from LCSH to DDC. The other would be from SAO to SAB and then from SAB to DDC.

The DDC numbers will be added to the authority records of the subject headings. In this work we will follow the guidelines set up by the Dewey editors for DDC numbers in LCSH authority records. In short, these guidelines mean that a topic has to be explicitly mentioned in DDC, to be added to the authority record. There are a few exceptions; it is for example also allowed to add a DDC number for a geographic entity with an implicit relation to the DDC

class. The idea is that the relationship between the term and DDC is recorded in the DDC, and can be looked up there. (Mitchell 2006)

We are however also planning to use the authority records for DDC numbers that do not fit these criteria, what in the paper is called mapping. We do not totally agree on the importance of keeping them separate and we would like to make all the mappings available both as part of WebDewey and as part of SAO in its different forms (on the web, in the authority file of the union catalogue, in the semantic web presentation) For these more loose mappings we are trying out if it is a good idea to record the relationship between DDC and the heading using Simple Knowledge Organisation System (SKOS). SKOS is a standard way to represent knowledge organization systems, such as thesauri, classification schemes, subject heading systems and taxonomies. One of the uses of SKOS is to represent the relationship between entities in different knowledge organization systems. The SKOS properties narrowMatch and broadMatch are the most commonly used in the mapping SAO-DDC. NarrowMatch means that the DDC class is narrower than the SAO term, and BroadMatch means that it is broader. The SKOS property is recorded in the 083 subfield c in the MARC record

083 \$a 958.1045 \$c BroadMatch

150 \$a Afghanistankriget 1979-1989

958.1045 is a broad match to Afghanistankriget 1979-1989 (in English Afghanistan war 1979-1989) and there are works in the class that are not about the Afghanistan war. Subfield c is also used to specify the different aspects when more than one DDC number is added to the record. Interdisciplinary and comprehensive numbers are left without specification in subfield c. Three different DDC numbers have been added to the authority record for Aborter (in

English Abortion). Two of them have specifications in subfield c and one of them does not since it is the interdisciplinary number. There are also separate authority records with DDC numbers for some preccordinated subject headings with Aborter as the main headings, i.e.

Aborter - religiösa aspekter (In English Abortion - Religious aspects)

083 \$a 362.19888

083 \$a 618.88 \$c Medicine

083 \$a 618.29 \$c Nonsurgical methods - medicine

150 \$a Aborter

Mapping SAB to DDC

Another important part of the DDC project is the mappings between SAB and DDC. No library is planning to reclassify their collections manually, and this means that the need for automatic methods to handle the change of classification scheme is big.

Initially DDC numbers and UDC number were added next to SAB classes directly in the classification scheme. Those numbers disappeared in SAB 6, and a separate conversion table was published (Hansson 1987) The second, and latest, printed edition between SAB 7 and DDC 21, was published 2000 (Gustavsson 2000). There is an updated version on the web, mapping DDC 22 and SAB 8.

The conversion table is a very important tool in the Swedish switch to DDC and it needs to be revised and updated to be of high quality. For this work, data on co-occurrence of the codes from the Swedish union catalogue LIBRIS is used. The mappings will serve several purposes:

- Form the basis for a joint search interface for SAB and DDC classed material
- Add DDC numbers to bibliographic records including SAB codes, and possibly vice versa.
- In the initial phase, help librarians understand DDC and the differences and similarities compared to SAB.

These new usages of the conversion tables need to be taken into account in the revision process. Before a Swedish switch to DDC was under way, the conversion table mainly helped cataloguers find a suitable SAB code for a work with a DDC number, or vice versa. The cataloguer could look numbers up and intellectually decide whether the given mappings were appropriate or not. Using the mappings to automatically add notation in the bibliographic records is another thing. No human that can evaluate the number is involved, and this puts higher demands on the data in itself.

In the revision process, some mappings are removed because they would not work in an automatic setting. In cases where there are several mappings to a DDC number or SAB code, one of them is marked as the primary. Possibly, this will be the notation added to records when automatic methods are used. The relationship between the DDC and the SAB classes are recorded using four different SKOS properties: `exactMatch`, `narrowMatch`, `broadMatch`, `relatedMatch`.

| DEWEY | SAB | Relation |
|---------|-----------------------|---------------------|
| 152.1 | Dodb | \leftrightarrow C |
| 153.7 | Dodb | C |
| 152.14 | Dodbc | = |
| 152.15 | Dodbd | = |
| 152.16 | Dodbe | = |
| 152.182 | Dodbf | = |
| 152.188 | Dodbö | C |
| 152.189 | Dodbö | C |
| 152.18 | Dodbö | \leftrightarrow C |

Figure 1. Search results for SAB code Dodb in the Conversion table

In the current display of the conversion table, the SKOS properties are shown as symbols.

ExactMatch (=) is used when the classes are equivalent or very close to equivalent. DDC class 152.14 and Dodbc are i.e. equivalents. BroadMatch is shown as the mathematical symbol for “superset of”. SAB class Dodb is a BroadMatch to DDC class 152.1. That means that Dodb includes elements that are not included in 152.1. NarrowMatch is shown as the mathematical symbol for “subset of”. SAB class Dodbö is a NarrowMatch to 152.18. This means that 152.18 includes elements that are not included in Dodbö. When there are several mappings to a class, one of them is marked as the primary. This is shown as an arrow, either pointing in both directions, or in one of the directions. 152.1 and Dodb are for example a primary match, valid in both directions.

Sometimes the relationship between the classes is easy to analyse and express with SKOS.

Sometimes it is more complicated. In Svanberg (2008) some of the problems in the mapping of SAB and DDC are described and discussed.

Conclusion

Adopting DDC is another step to facilitate international cooperation and become part of a big network of interlinked knowledge organisation systems and, behind those, categorised resources. It is time to abandon SAB after 87 years.

References

- Delegationen för vetenskaplig och teknisk informationsförsörjning. Arbetsgruppen för klassifikationsfrågor (1981). *Klassifikationsfrågor : rapport från DFI:s arbetsgrupp*. Stockholm: DFI. (DFI-publikationer, 1981:5)
- Dewey, Melvil (2003). *Dewey decimal classification and relative index*. 22 ed. Dublin, Ohio: OCLC Online Computer Library Center
- Gustavsson, Bodil (2000). *Konverteringstabell mellan Dewey decimal classification (21. ed.) och Klassifikationssystem för svenska bibliotek (7. uppl.)*. Lund: Bibliotekstjänst
- Hansson, Joacim (1997). "Why public libraries in Sweden did not choose Dewey". In *Knowledge Organization*. Vol 24 (3), s. 145-153.
- Hansson, Lars-Olof (1987). *Konverteringstabell mellan Dewey decimal classification (19. ed.) och Klassifikationssystem för svenska bibliotek (6. uppl.)*. Lund: Bibliotekstjänst
- Konverteringstabell mellan Dewey och SAB. Database available <http://export.libris.kb.se/DS/>
- Leth, Pia and Berg, Ingrid (2003) "Subject indexing in Sweden : the creating of a national system based on international standards in a country that often wanted to go its own way." Paper presented at the World Library and Information Congress (70th IFLA General Conference and Council), 22-27 August 2004, Buenos Aires. Available [2009-06-25] http://archive.ifla.org/IV/ifla70/papers/041e-Leth_Berg.pdf
- Leth, Pia and Berg, Ingrid (2008). "Subject indexing in Sweden". In: *New perspectives on subject indexing and classification : essays in honour of Magda Heiner-Freiling*. s. 179-183
- Mitchell, Joan S. Dewey numbers in authority files. Discussion paper presented at Meeting 126 of the Dewey Classification Editorial Policy Committee (EPC), Washington October 11-13, 2006. Available [2009-06-25]: http://www.oclc.org/dewey/discussion/papers/epc_126-35.doc
- Mitchell, Joan S., Rype, Ingebjørg and Svanberg, Magdalena. (2009) "Mixed Translations of the DDC : design, Usability, and Implications for Knowledge Organization in Multilingual Environments" Paper presented at the IFLA Classification and Indexing Section's satellite preconference, "Looking at the Past and Preparing for the Future.", Florence e20-21 August 2009
- SKOS Simple Knowledge Organization System. Reference. W3C Proposed Recommendation 15 June 2009. Available [2009-06-25]: <http://www.w3.org/TR/skos-reference>

- Svanberg, Magdalena (2008). "Mapping two classification schemes - DDC and SAB."
In *New perspectives on subject indexing and classification : essays in honour of Magda Heiner-Freiling*. s. 41-51.
- Svanberg, Magdalena (2006) *Övergång till Dewey Decimal Classification. Vad skulle det innebära? Delstudie 3 i Katalogutredningen*. [Stockholm]: Kungl.biblioteket.
Available 2009-06-25]:
http://www.kb.se/Dokument/Om/projekt/avslutade/katalogutredning/delst3_slutrapport.pdf
- Viktorsson, Elisabet. (ed.) (2006). *Klassifikationsystem för svenska bibliotek*. 8th ed.
Lund: Btj förlag

Author

Magdalena Svanberg
Executive officer / Librarian
National Library of Sweden
National Cooperation Department
Box 5039
SE-102 41 Stockholm
Sweden
Email: magdalena.svanberg@kb.se
Phone: 46-8-463 44 45
Fax: 46-8-463 42 74

Magdalena Svanberg works at The National Library of Sweden. Since 2006, when she made a feasibility study on a Swedish switch to DDC, the question of a switch to DDC has been her main responsibility. This work resulted in a decision the switch to DDC at the National Library of Sweden, made in November 2008. Svanberg has been employed by The National Library of Sweden since 1999, and was until 2006 responsible for the development and maintenance of the Swedish subject heading language Svenska ämnesord. Svanberg is member of the IFLA standing committee on Classification and indexing since 2005. She got her degree in Library and information science at Umeå University in 1995.