Module 0: Introduction to bibliographic records

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0.1. Bibliographic records, item records, holdings records

The OLIS catalogue consists of three important types of record, bibliographic, item and holdings.

Most OLIS resources are of kinds which are or could be issued as a large number of identical copies, such as books, CDs, DVDs, computer discs or maps. A bibliographic record represents the resource as issued and so contains information which is true about every copy, such as title, creator, publisher and size.¹ Here is an example, as it appears in SOLO.

An item record represents a particular copy of a resource and typically contains information about its individual history, condition and availability. In electronic systems it contains a unique identifying number, often corresponding to a physical barcode on the item, which enables the copy to be tracked.

For some library systems the terms ‘item’, ‘holding’ and ‘piece’ are more or less equivalent, but in Aleph the holding record is separate and mainly contains information about the item’s whereabouts (institution, sublibrary, collection, classification/shelfmark, copy number, etc.). Some of this location information is also displayed in the Aleph item record, but it can only be changed in the holdings record. For technical reasons the holding record also contains any copy-specific notes about the item, although it would be more logical for these to be held on the item record.

The example below shows information about particular copies of the above resource as it appears in SOLO. This information is drawn from both item and holding records, because users want to see both location and availability information and are not interested in technical distinctions.

¹ One common exception is online electronic resources, because each of these is a unique resource which can be accessed by many people at the same time. In principle these do not need to have separate items or holdings records, but sometimes they have them for technical reasons.
This module is about bibliographic records, but it is also very important for people who will be creating or editing items and holdings records, because it is essential to attach items and holdings to the right bibliographic record, the one which really does represent the resource as issued. If you attach your items and holdings records to the wrong bibliographic record, a library user may conclude that your library does not have any copies of a resource s/he wants or may place an order or reservation for something s/he does not want. To attach items and holdings correctly, you need to know your way round a bibliographic record and understand which parts are relevant to deciding whether it is good match for your copy.

0.2. Why don’t cataloguers use their common sense?

Bibliographic records include a wide range of information and sometimes appear cluttered and repetitive. To create them, cataloguers have to use a vast range of rules and guidelines. Why does it have to be so complicated?

There are two kinds of reason: what library users want; and what libraries can provide.

0.3. What readers want

Someone might look for the book on the left after getting full details from a review or catalogue, or (rarely) having been given a carefully compiled reading list with full details of title, subtitle, series, author, publisher, etc.; but someone else might just have a vague idea of the title and/or author or subtitle or series. Some searchers might not have this particular book in mind at all, but might just want something easy to read about cataloguing, with fewer than 300 pages and funny illustrations, or something by this author or something with a decent bibliography.

Someone looking for *Double Vision*, a Mills & Boon Silhouette Bombshell....

... would not be happy with a school reader of the same name, or a book about artistic photography.
Some people might be happy with any issue of *Alice in Wonderland*...

but others might particularly want a first edition ... or the edition with Rackham’s illustrations ...

... or a children’s version ... or a large-print version ... or a copy in a particular language ...

... or might very much *not* want to find they had ordered the Disney version, or a stage adaptation, or a set of exam notes ...

... let alone a rather abstruse scholarly study, or a popup book, or a mini jigsaw book.
But someone compiling a bibliography of *Alice* would want to know about all of these. And someone compiling a bibliography of the *author* rather than the work would also want to be taken to *Through the looking glass*, and *The Hunting of the Snark*, and even to *Curiosa Mathematica Part II*, *Pillow problems, thought out during wakeful hours*, and *An elementary treatise on determinants : with their application to simultaneous linear equations and algebraical geometry* and *Suggestions as to the election of proctors*, and *Resident women students*, all works published by the same author but under the name of Charles Lutwidge Dodgson. Other people again might want some of these resources because of an interest in fantasy literature or parody or a particular illustrator or publisher or a historical period.

So readers come with a wide range of information and a wide range of requirements. A very simple bibliographic record could not be easy for everyone to find nor tell everyone what they want to know.

### 0.3a Giving people what they want: description, access and the FRBR user tasks.

**Description and access**

To clarify what people need from a bibliographic record it is worth considering why we have a catalogue at all. Why do we not just let people rummage through the materials to find what they want for themselves?

- The collection may be too big to browse through, and if so the arrangement cannot be optimised to be intuitive for everyone. Does a book on Greek sculpture go under Greece or under Fine Arts? Does a CD-ROM course by a college or faculty member on statistics for oncologists go under Maths or under Medicine or with all the other CD-ROMs behind the librarian’s desk or down in the basement in a collection of publications by members?

- The collection may be too far away, for instance in the Bodleian Storage Facility.

- The materials may be too fragile. Titles may be faded or spines hanging off or paper crumbling, and they may be jammed tight in shelves or piled on floors.

- The materials may be too dangerous. For instance, some collections include old photographic negatives which may combust spontaneously, while others include batteries or chemicals or light sabers.²

- The materials may be at risk of theft, e.g. early copies of the *Magna Carta* or the latest edition of Courtneys's *The law of companies*.

Moreover, in the absence of a catalogue, tracing and replacing missing materials, would depend on human memory.

So the whole point of a catalogue is to substitute for inconvenient or vulnerable resources something which is easier to handle and easier to organise. For this to happen:

- It must be really clear which record represents which resource, that is, for the record to *identify* the resource. The parts of a record which do this are called the *description*. It will also save trouble for users and staff if the description gives, within reason, enough information for the user to decide whether the resource is worth getting without getting it physically, so the description may include some details which are seldom necessary for identification, e.g. whether the resource includes a bibliography, to help with *selection*.

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² Because books are not currently subject to VAT, it is cheaper for producers to categorise a product as a chemistry book with practice materials than as a chemistry set with instructions. In consequence, the Legal Deposit Libraries receive a remarkable range of materials.
Unless the catalogue is very small, it must be possible for the records to be arranged in a way which enables most people to go more or less straight to the records they want, ignoring thousands or millions of other records. The parts of a record which do this give access to the record, and thereby to the resource, and they are often called ‘access points’.

Description and access are the two key tasks for bibliographic cataloguers. Some parts of a record can serve both for description and for access, but in many cases they need different approaches.

**FRBR’s ‘user tasks’**

In the late 1990s the FRBR (Functional Requirements for Bibliographic Records) project was launched to set cost-effective minimum standards for national bibliographic cataloguing (i.e., cataloguing by agencies that create national bibliographies). To measure cost-effectiveness, FRBR identified four ‘user tasks’:

**FIND** Using the access points in a bibliographic record to find either a particular resource or a range of resources which meet the user’s criteria.

**IDENTIFY** Using the description to check that a particular resource is the one required

**SELECT** Using the description to choose between resources which all meet the user’s basic criteria. Item and holdings records also offer selection criteria: for instance, a holdings note may indicate a copy’s condition and the location will show which copy is nearest.

**OBTAIN** Most of the information for this task is in items and holdings records (e.g. location and availability), but any information which is not copy-specific will be in the bibliographic record. This might include notes saying that all copies of the resource are embargoed or URLs for online resources.

(A further task, **EXPLORE**, is under consideration.)

When deciding which descriptive points and access points to include, cataloguers must focus on their value in helping users to perform these tasks. For instance, it is worth mentioning illustrations or making access points for any previous issues with different titles, for the sake of collocation; but there is no justification for including exhaustive lists of unremarkable illustrations or giving exhaustive details of every previous issue.

**Other uses of the catalogue**

Nevertheless, a catalogue may also give quite a lot of help even to people who don’t particularly want to get hold of any resources at all. It can provide information for essays and quizzes and crossword puzzles and scholarly studies. Was *Northanger Abbey* published before *Pride and Prejudice*? Who wrote *The Body in the Library*? When was the first *Beano Annual* published? Might a 17th century fellow of Magdalen have seen a Greek text of the New Testament based on the *Codex Vaticanus*? A catalogue can do this even if the library is closed or is a thousand miles away or the road to the depository is flooded or the works are too fragile to be handled or have been lost or stolen or destroyed. This is not the primary role of an academic catalogue, but it is nevertheless a significant added value.

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4 The parts of a record used for selection are often those which describe the resource physically, e.g. size, but not always; it all depends on what the user considers essential and what is merely desirable. For instance, one user might find and identify an audio CD partly on the basis of its performers, while another might select the CD on this basis.

5 Just in case you were wondering: a 19th century handlist shows that Magdalen used to possess a copy of the 1570 Tridentine New Testament, which was based on the *Codex Vaticanus*. 
0.3b Questions of description

A description, then, has to include enough information to allow a range of users to determine whether a resource meets their requirements and, within reason, to choose the most convenient or agreeable resource available. But what exactly does that come to? What kinds of difference are important enough to enough people to make something a different resource, meeting different needs and requiring a different bibliographic record, rather than just another copy of the same resource?

Issues for description

Please look at the Father William “book”.

What kinds of bibliographic information do users need to differentiate it from other books which they would not consider interchangeable? Remember that piling up detail in a description narrows the range of items which may be attached to the record, and it does not help users to have resources split between separate records for trivial reasons. (Do not worry if you cannot decide in every case.)

• The condition of the book, e.g. whether it is dog-eared?

• The picture on the cover? Or the number of staples in the spine? If this resource were reprinted with a different cover, might a user consider that to be a different resource?

• The title? Certainly, although, as we saw with Double Vision, the title is seldom enough. But which title? How many different titles can you see? (Please don’t read on until you have had a good look for yourself.)

• What is the title on the title page? Does it begin with “Lewis” or with “You”? If the former, should the spelling “Caroll” be corrected to “Carroll”?

• Where does the title information end?

• If on some copies the title-page title were all in capitals, like the cover title, would you want to give those copies a separate bibliographic record?

• Are people such as the illustrator and editor and writer-of-foreword important enough to include? If so, what about the spelling of “Tenniel”? And do we need to include everyone’s titles and honorifics?

• Are phrases like “De luxe centennial edition” and “A Kiddy Klassik Poetry Special” information or advertising or both? Should they be included in the record? Does an edition statement always indicate a change of content?

• Would it matter if some copies had ‘ed.’ instead of ‘edition’?

• Is it important to keep the same line-breaks between bits of information as on the resource, or would it be OK replace these with some kind of punctuation?

• Would a change of publisher make this a different resource? If so, would you record the Quidnunc Trust or Just Kidding or SCAM International or all of them? Is it important to include terms like ‘Publishers’ and ‘ ltd’ and ‘inc.’?

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6 No, that information belongs in items/holdings records.

7 Cataloguing of mainstream material has tended to pay little attention to binding, probably because historically books have often been issued unbound and because bindings are often damaged and replaced; but publishers, booksellers and the public do not share this approach. For instance, Nielsen, the ISBN agency for the UK, requires a book reissued with a new cover to have a new ISBN.

8 Cover; spine; title page; above the foreword and at the beginning of the main text.
• Would a change of place of publication make this a different resource? If so, must we include all the places mentioned? Should we give full addresses or just towns or just countries?

• Would a change of date make this a different resource? If so, which date should be used? 2003? 1998? 1866? Where, in the resource and elsewhere, might you look for this information?

• Would a change of series make this a different resource? If so, which series title should be used? How many different series titles can you see? (Please don’t read on until you have had a good look for yourself. 9)

• Would a change in the layout make this a different resource? Size? Pagination? Illustrations? How big a change? How many pages are there in this resource?

• Would a change of ISBN make this a different resource? If so, which ISBNs should be included? How many are there? (Please don’t read on until you have had a good look for yourself. 10) What if the publisher’s website showed a different ISBN?

The questions above are of three kinds:

1) What elements should we include?

2) Where exactly will we take our information from?

3) How will we write it?
   • How much should we write for each element? Could we leave anything out?
   • Should we copy mistakes faithfully or correct them?
   • Are punctuation, capitalisation, abbreviations, etc. significant?
   • How should we arrange the various bits of information?

These questions do not have absolute right or wrong answers. If sensible people were left to make their own decisions, they would not all come up with the same decisions, and the same person might well come to different decisions depending on the resource. For instance, you might think it important to record the exact pagination for a private press book; but if your library ordered twenty copies of a modern textbook and you found that five of them had one extra page because they were from a later printing with a longer list of of ‘other items in this series’, it would be tiresome to have to make a separate record for them.

0.3c Questions of access

Whatever the details, it is obvious that a description has to keep close enough to what can be seen on the resource to provide unambiguous identification. But would the same approach be right for access points?

For a start, some of the elements which are most helpful for identification might not work at all well as access points. If you want a particular resource, details such as edition, publisher and date are good for

9 On spine; with series list on last page; and a series-like phrase, “A Kiddy Klassik Poetry Special”, on the cover and title page.

10 1 on back cover; the same one at end of text; 3 on title-page verso; also an ISSN with the series list on the last page.
checking that you have the right one, but in a large collection too many of the resources would have the
same edition, publisher or date for these to be effective search terms.11

These elements are also less valuable for finding sets of related resources, simply because more people
are interested in every issue of the same work or everything by the same author or in the same series
than in everything issued by the same publisher or in the same year, let alone everything with the same
edition statement.

Of course, for some purposes some elements of the description can provide adequate access. People
often search successfully for a particular resource by using a title found on the resource, as long as this
title is reasonably distinctive. They may even find other issues of the same work, as long as the title has
not changed. But what if they want every issue of the work and the title has changed between issues?
Or what if they want everything by a given author, but the author’s name is presented differently on
different resources?

**Issues for access 1**

Suppose you had on your bookshelf copies of *Faust* by ‘Johann Wolfgang von Goethe’, *The Sorrows of
Young Werther* by ‘Göthe’ and *The Lord of the Flies* by ‘William Golding’ and you planned to arrange
everything by author first and then by title. Would you just arrange them on the basis of the first letters
of the author’s name as found?

<table>
<thead>
<tr>
<th>Göthe</th>
<th>Johann</th>
<th>William</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Sorrows of Young Werther</td>
<td>Wolfgang von Goethe</td>
<td>Golding</td>
</tr>
<tr>
<td>Faust</td>
<td></td>
<td>The Lord of the Flies</td>
</tr>
</tbody>
</table>

- In fact you would arrange the names by surname, probably without even registering that this was not
  the order on the resource. We always do. So would you arrange them as:

<table>
<thead>
<tr>
<th>William</th>
<th>Göthe</th>
<th>Johann</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Golding</em></td>
<td>The Sorrows of Young Werther</td>
<td><em>von Goethe</em></td>
</tr>
<tr>
<td>The Lord of the Flies</td>
<td>Faust</td>
<td>Wolfgang</td>
</tr>
</tbody>
</table>

- In fact you probably would not think of filing under the prefix ‘von’, because we are so used to
  hearing and seeing this author’s name without a prefix. So would you arrange them as:

<table>
<thead>
<tr>
<th>Johann</th>
<th>William</th>
<th>Göthe</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wolfgang von Goethe</td>
<td><em>Golding</em></td>
<td></td>
</tr>
<tr>
<td>Faust</td>
<td>The Lord of the Flies</td>
<td>The Sorrows of Young Werther</td>
</tr>
</tbody>
</table>

- In fact you would almost certainly put resources by ‘Goethe’ and ‘Göthe’ together, because you *know*
  that these terms represent the same author, despite the difference in spelling.

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11 Nevertheless, elements such as publisher and date can be very useful when combined with other search terms, so
they may serve as auxiliary access points in electronic systems which offer efficient keyword searching or can refine
search results with filters or facets.
All these judgments imply that you are going by what you consider to be the ‘normal’ versions of authors’ names and ignoring the particular form found on the resource. That produces the kind of collocation you want and is fine when you are arranging your own bookshelf. But if you and others are arranging catalogue records for thousands of users, who will decide what the ‘normal’ forms should be?

*Issues for access 2*

Now consider that prolific author John Smith. Your bookshelf has *Fairy folk of Cornwall* by John Smith and *Odor and corrosion control in sanitary sewerage systems* by John Smith next to each other. If for each author you put the works in title order, when you acquire *Pixies of Cornwall* will its record automatically follow *Odor and corrosion control*?

Or would you, realising that the author of *Odor and corrosion control* is a different person, put it right after *Fairy folk of Cornwall*?

When you are arranging your own bookshelf it is fine for you to group books by author just on the basis of your own knowledge of which author is which. You do not have to make the authors look different. But if you are arranging catalogue records for thousands of users, how will you show which author is which so that the resources by each author are collocated in a comprehensible order? You will probably decide to add some extra information, such as dates of birth or death and/or a middle name or initial.

Smith, John, 1936- [author of *Fairy folk of Cornwall*]
Smith, John M., 1945- [author of *Odor and corrosion control*]

But what if for a given author you sensibly decide to use dates and another cataloguer equally sensibly decides to use a middle name?

Smith, John (John Egbert) [author of *Fairy folk of Cornwall*]

It will then appear that there are two authors where actually there is only one.

*Issues for access 3*

What about Lewis Carroll and Charles Lutwidge Dodgson? Do we want the catalogue to show the relationship between *Alice in Wonderland* and *Curiosa Mathematica Part II, Pillow problems, thought out during wakeful hours*? Is it best to use the ‘real’ name for everything or the best-known name for everything or to use each name for the relevant works? If the last, how can we direct catalogue users from one name to the other? Won’t this be a lot of extra work?
0.4. What libraries can provide and how they provide it: record sharing

Perhaps the chief librarian of each library could decide everything, all the rules for what to include in the description and how to write it and all the standard forms of names. Each library would be then be internally consistent, but that library would have to do all its own cataloguing. That would be tough for the Legal Deposit libraries, which receive over 100,000 items per year.

Perhaps each country could establish descriptive rules and standard names. Then libraries in that country would be able to copy each others’ records. But what about foreign books?

Perhaps a lot of countries could work together and decide. Then we could all share records.

And that is what we do. In order to create records which are easy to handle, make the right distinctions between items, and can be systematically organised to suit the interests and information of all the collection’s users as quickly and cheaply as possible, we have to share records, both locally and internationally, and so we have to use international standards.

This does not mean complete uniformity. Local agencies may decide that to meet the needs of their own users they want their records to include more information that the international standard requires, or they may decide that they will use a lower standard for some materials (e.g. leisure DVDs or exam papers) and not make the records available for sharing. Cataloguers therefore have to cope with local guidelines as well as the international standards.

It is not particularly easy for librarians from a large number of countries and agencies to work together. They are all under pressure to establish practices which suit their own workflows and capabilities; they all have demanding jobs which limit their availability for international consultations; and it really is not possible to produce results which suit every resource and every workflow. Inevitably the international rules are alarmingly complex and yet do not cover every eventuality. But we have to make the best of it. There really is no choice about record sharing.

0.4a Shared Cataloguing Programme

One good example of how sharing work makes better records possible is the Shared Cataloguing Programme (SCP), which creates the British National Bibliography (BNB), the national catalogue of British print publications since 1950. The BNB used to be created by the British Library alone but, as the volume of publications increased and resources diminished, the BL had to consider lowering the standard of BNB records. Rather than let this happen the other five Legal Deposit libraries in the British Isles – the Bodleian, Cambridge University Library, the National Library of Wales, the National Library of Scotland and Trinity College, Dublin – each agreed to take responsibility for six percent of the BNB. The Bodleian’s share currently consists of items beginning with the letter M.

Mathematical and economic theory of road pricing
Murder on the Orient Express
Multifunctional agriculture - a new paradigm for European agriculture and rural development
Mastering Korean. Level One
MAC OSX disaster relief
The Mammoth Book of Gorgeous Guys

My little shimmery glimmery bedtime book

All the resources listed above and thousands more have been recorded for the BNB by the Bodleian’s specialist SCP cataloguers, to the highest standards of scholarly cataloguing, and uploaded to the BNB database, from which any library can copy any record. We have a direct connection to BNB from our Aleph cataloguing system and copy very large numbers of records from it.

0.4b NACO authority records

Another very important thing on which the international community cooperates is the Library of Congress Name Authority File (LCNAF), a database containing millions of authority records for persons, families, organisations, works (if they have appeared under more than one title) and series. Each record gives a standard access point for the entity, plus cross-references to nonstandard forms of the name and to other names for the same entity and notes to show where the information was taken from and add any necessary clarifications. Here is an example (in a ‘friendly’ display, using captions rather than machine codes). Notice the care taken to establish the exact period for which the name was current.

California Prune Board

Use For: California. Prune Board
Use For: California. Department of Food and Agriculture. California Prune Board
Use For: California. California Prune Board
Earlier term: California Prune Advisory Board
Later term: California Dried Plum Board
Hierarchical superior: California. Department of Food and Agriculture
Found in: Prune research abstracts, 1981 (a.e.) cover (California Prune Board; World Trade Center, Suite 103, San Francisco)
Found in: Phone call to the Board, 6-9-83 (name of California Prune Advisory Board changed 7-1-80 to California Prune Board; has operated since 1-1-52, under Calif. State Dept. of Food & Agric.)
Not found in: California prune news, Mar. 2001 p. 6 (California Dried Plum Board)

Recent records can be quite encyclopedic, including background information about the entity such as a person’s dates, gender, occupations and places of residence, even if not required for individuation.

LCNAF is organised by the Name Authority Cooperative Program (NACO) and hosted by the Library of Congress. The Bodleian has some specialist NACO cataloguers who contribute records.

0.5. The international standards

So we have to use the international standards. They are:

• Resource Description and Access (RDA), for what to include on a catalogue record and how (except for subject access points). This replaced the Anglo-American Cataloguing Rules (AACR2) with effect from March 2013; but existing AACR2 records will stay in circulation, meaning that we will have to cope with a mixed environment for the foreseeable future.

• International Standard Bibliographic Description rules for punctuation.
• **Machine Readable Cataloguing 21 (MARC 21) Standards** for marking up electronic records so that they can be used for a wide range of displays and searches in a wide range of systems

• **Library of Congress Subject Headings [LCSH]** for what to include and how for subject access points.

• **Minor standards**, e.g. particular vocabularies which may be used in conjunction with RDA. Libraries are making increasing use of standards not specifically designed for libraries, such as those from International Organization for Standards (ISO), for the sake of harmonisation and better data harvesting.

This is how the Father William ‘book’ would come out as a bibliographic record using RDA instructions, ISBD punctuation, Library of Congress Subject Headings and MARC formatting. Colour coding has been added to pick out RDA descriptive elements, RDA access points, elements which are serving for both description and access, MARC21 formatting, LCSH subject access points, ISBD punctuation (no colour). (The pale pink information is technically part of the RDA description, but is intended to be read by machines rather than by people. It could be used to generate user-friendly icons, facets and filters in public-facing displays.)

*Example record, showing RDA descriptive elements & access points, ISBD, MARC and LCSH.*

```
LDR 01639nam 92200325 i 4500
001 012345678
003 UKOxU5
008 070916s1998 maua j 001 h eng c
020 __ $a019289238X$z0192892391$zCD
020 __ $z0192892407$qset
040 $aUkOxU$beng$cUkOxU$erda
100 1_ $aCarroll, Lewis,$d1832-1898,$eauthor.
240 10 $aYou are old Father William
245 10 $aLewis Carroll's you are old Father William : a parody / humorously adapted by him from Robert Southey's The old man's comforts and how he gained them ; with the original illustrations by Sir John Tenniel.
246 1_ $aTitle should read: Lewis Carroll's you are old Father William
246 14 $aYou are old Father William
246 16 $aLewis Carroll’s Father William
246 18 $aFather William
250 __ $aDe luxe centennial edition / newly edited by Q. Wykke-Bucke M.BSt.
300 __ $a3 pages : illustrations ; 22 cm
336 __ $atext$brdacontent
337 __ $sunmediated$brdamedia
338 __ $avolume$brdaccarrier
490 1_ $aThe kiddy klassiks series,$x1234-5678 ; $2
500 __ $aISBN from back cover. Title page verso gives incorrect ISBN
0192892381.
500 __ $aIllustrator's name is misspelt as “Tenniell” on title page.
500 __ $aFirst published in: Alice's adventures in Wonderland / Lewis Carroll. 1866.
500 __ $aCommonly referred to as: You are old Father William.
500 __ $a"A Kiddy Klassik Poetry Special in association with the Quidnunc Trust"--Title page.
```
0. Bibliographic records

500 __ SaIncludes index.
600 10 SaSouthey, Robert, $d1774-1843 SyParodies, imitations, etc.
600 0 SaFather and child $bHumor $dJuvenile poetry.
700 1 SaTenniel, John, $cSir, $d1820-1914 Syillustrator.
700 1 SaWykke-Bucke, Q., $eeditor.
700 1 SaSouthey, Robert, $d1774-1843 SyOld man's comforts and how he gained them.
700 1 SaCarroll, Lewis, $d1832-1898 SyAlice's adventures in Wonderland.
710 2 SaQuidnuncio Trust, $e sponsoring body.
830 0 SaKiddy klassiks series ; $v2

0.5a RDA and ISBD practices

For the moment we will ignore the MARC elements and focus on what we can learn from this record about RDA and ISBD. Please try to work out the answers to the following questions before looking at the answers below them:

- What kinds of information were included in the description (green and yellow elements)?
  - ISBNs
  - Title statement (title proper, subtitle and statements of responsibility relating to title)
  - Variant titles
  - Publication statement (place, publisher and date)
  - Physical description
  - Series statement (series title, ISSN, numbering in series)
  - Various notes - corrections, clarifications, information about contents, publication history, explanation of standardised form of title and, in a quoted note, a statement which might be useful for identification or of interest to some users but does not belong anywhere else.

- Where was the title statement taken from?
  - The title page. (This is the preferred source for most information.)

- Where was the series title taken from?
  - The series title page.

- Was any title-page information omitted?
  - The statement of responsibility for the writer of the foreword. (Statements of responsibility are only transcribed when they relate to an intellectual or artistic contribution. Cataloguers can use their judgment in borderline cases and for minor contributions. They may also omit inessential information from very long statements of responsibility.)
  - All places of publication other than the first, using the order on the title page rather than that on title page verso.

- Was any information added to the title-page information?
• "[Massachusetts]" was added to 'Cambridge' to distinguish it from the English town. (Any information in square brackets is supplied by the cataloguer or taken from outside the resource, so it should not be used when matching items against records.)

• What about the misspellings of 'Carroll' and 'Tenniel'?
  □ These were explained in notes. (The mistake in the title proper, which is an access point, was corrected in a variant title field, which serves both as a note and as an access point, so there will be an access point for the correct form.)

• What happened to the capitalisation?
  □ The normal capitalisation of English sentences was used, except in a note which gave information in quotation marks, so capitalisation is of no significance for matching. (RDA also allows capitalisation to be copied as found or according to an agency's own scheme.)

• Were any abbreviations used?
  □ Only those found on the resource, e.g. 'M.BSt'.

• What punctuation is used before statements of responsibility? Is the punctuation useful for matching?
  □ Forward slash. Punctuation is not useful for matching, because most of it is prescribed by ISBD rules rather than transcribed from the resource.

• Which date was used?
  □ The publication date.

• How were the pages counted?
  □ By the last numbered page; the unnumbered pages were ignored.

• What happened about the various ISBNs?
  □ All were included, but with qualifiers or notes to explain the differences. (The cataloguer would have used sources outside the resource, e.g. the publisher's website, to find out which one was correct.)

• Is the descriptive information arranged in the same order as it appears on the resource?
  □ No.

• Which access points are in standardised forms, i.e. not taken from the description (blue elements)?
  □ Names of author, illustrator, editor and sponsoring organisation.
  □ A standard form of the title (explained by a note).
  □ Access points for related works, i.e. the work from which the poem was taken and the work on which it was based.
  □ A standard form of the series title.

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12 There is an important difference in the MARC coding between the correct and incorrect ISBNs: 020 $a will generate the label 'ISBN' in SOLO displays, while 020 $z will generate the label 'Related ISBN.'
0.5b AACR2 practices

Because you will see a lot of AACR2 records and may have to match items against them, it is worth knowing how AACR2 records might differ from RDA ones. (Because it is confusing for cataloguers to work in a mixed environment you may even see records which claim to follow RDA instructions but actually follow AACR2 in places, or vice-versa.)

- AACR2 allowed far more **corrections and clarifications in square brackets**, so needed fewer notes. For both AACR2 and RDA, you should ignore anything in square brackets when matching against a resource.

  245 10 $a Lewis Carroll $b you are old, Father William : $c parody / $d humorously adapted by him from Robert Southey’s The old man’s comforts and how he gained them ; with the original illustrations by Sir John Tenniel [sic].

- AACR2 required or allowed **more omissions, e.g. of most titles and honorifics**, so this kind of omission can be ignored when matching against a resource. More substantial omissions were shown by a mark of omission, ‘…’.

  250 __ $a De luxe centennial ed. / $b newly edited by Q. Wykke-Bucke.

- AACR2 required a large number of **standard abbreviations**, so you can ignore abbreviations when matching against a resource.

  300 __ $a 3 p. : $b ill. ; $c 22 cm.

- For non-text resources AACR2 included a **General Material Designation** in square brackets after the title proper, to give a broad indication of the material type, e.g. ‘[electronic resource]’ or ‘[videorecording]’. Instead of this RDA requires separate elements for content type, media type and carrier type (the pale pink elements), which are designed to generate user-friendly icons, though at present there are no systems available to make good use of them.

For more details of what to look for when matching records, please see [Quick reference: MARC fields and matching](#).

0.5c Catalogue cards and CIPs

AACR2 was designed for catalogue cards and similar formats, so the information had to be packed tight, with the different kinds of information separated only by their ISBD punctuation. You will still find plenty of AACR2 catalogue cards (and ones created by earlier standards) in OLIS libraries, so it is useful to understand it.
The description is in the main paragraph, starting three lines down.

- The double-dashes divide the description into areas, e.g. the title and statement of responsibility area (title proper, other title information = subtitle, statements of responsibility) or the publication area (place, publisher, date). In principle RDA elements are completely independent, not grouped into areas, but RDA often groups instructions for descriptive elements according to the statements in which they typically occur, e.g. publication statement (place, publisher date). MARC records are arranged in fields (usually on separate lines) which roughly correspond to AACR2 areas.

- The order of areas is not the same as MARC order. ISBNs are last rather than first. (This is actually the order prescribed by ISBD).

- The access points are on the first and second lines and at the bottom.

  - The one on the first line is the main access point for this resource.
  - The ones with roman numbers are all access points for names and titles associated with the resource, while the ones with arabic numbers are for its subject matter.
  - The ISBN is not listed as an access point, although card catalogues sometimes do include ISBN sequences.
  - Only access points at the top of cards can be used to organise them for navigation. That means that separate cards would have to be made for all the thirteen access points listed at the bottom. Normally these cards would not have the full description, but would just refer back to the main card by giving the main access point and the title, e.g. “See: Carroll, Lewis, 1832-1898. You are old, Father William.”
  - Because this resource embodies a work which was originally known under a different title, the original, standard title is inserted in square brackets under the main entry, so that this form rather
than the title proper will be used for arranging the cards. This will collocate every publication of
the work.

- Because each access point occurs at the top of a catalogue card, access points are often called
  headings in AACR2, MARC and LCSH.

- The non-main access points for a resource are listed at the bottom of the main card so that if
  anything changes (e.g. if the resource is deaccessioned) all the cards can be found. Because these
  access points are added for the sake of tracking, access points other than the main one are
  sometimes called added entries or tracings.

Something similar to catalogue-card format is also used for the ‘cataloguing in publication’ records (CIPs)
which are sometimes printed on the title page verso of U.K. and U.S. books. The Library of Congress and
the British National Bibliography create these brief, provisional records if publishers send them details of
new books before publication, so that other libraries can copy the records to place orders.13

**Library of Congress Cataloging-in-Publication Data**

Nauratil, Marcia J.
The alienated librarian.
(New directions in information management,
0887–3844 : no. 20)
Bibliography: p.
Includes index.
1. Librarians—Psychology. 2. Library science—
Psychological aspects. 3. Alienation (Social psychology)
4. Burnout (Psychology) I. Title. II. Series
Z662.35.P422N38 1989 020’.019 88–34797
British Library Cataloguing in Publication Data is available.

0.6. More about MARC

We are fortunate that instead of producing and tracking fourteen catalogue cards we can create a single
electronic bibliographic record which can be accessed in fourteen different ways.

MARC was designed about fifty years ago as a way of exchanging information which would be used to
print out catalogue cards; but as electronic library systems developed it became possible to use the
MARC records themselves to supply all the needs of library users and staff.

0.6a Fields and subfields

The most obvious thing that MARC adds to AACR2 or RDA records is a set of labels which identify the
various parts of the record and are easy for machines to read. If you look back at the record on page 16,
you will see that all the lines which hold descriptive data or access points begin with a 3-digit number.
Each of these lines is a MARC field and the number which identifies it is called the field tag.

- What fields are used for: (i) variant titles; (ii) access points for author, editor and illustrator?
  - (i) 246, (ii) 100 or 700. (The use of ‘1’ shows that the author is the record’s main entry.)

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13 The details often turn out to be wrong: date, pagination, title and even author may change before publication; but
ISBNs should never change.
All the fields which contain RDA data have at least one **subfield code**, and some have several. Most **subfield codes** identify particular RDA or AACR2 elements, although in a few cases multiple elements may share a subfield. The codes consist of a single character, usually alphabetical, but because they sit in the middle of the data they have to have something to pick them out, and this is called the **subfield designator**. In the example record the subfield designator is a dollar sign, but anything distinctive could be used. Some systems use double dollar signs ($$) or pipes (|) or double daggers (‡). Systems may also use different colours to display subfield codes or put extra spaces round them. A single system may use different designators for different displays. These are simply display settings and do not affect how the codes are entered or used.

- What subfield is used for:
  - (i) publication date; (ii) ISSN; (iii) illustrations?
    - (i) 264 $c, (ii) 490 $x, (iii) 300 $b.

For a summary of MARC fields and subfields, see [Quick reference: MARC fields and matching](#).

### 0.6b Indicators and fixed-length data elements

MARC does not just add labels to RDA or AACR2 data. It can add extra data, in the form of codes which are very efficient for machine reading.

Between the field tag and the first subfield code there are two ‘positions’ where single-digit codes called **indicators** may be added. The meaning of each code depends on the field.

For instance:

In field 245 the first indicator ‘1’ means that this field is not the main entry, while the second determines whether the system should ignore some characters when indexing the title proper. In the following example it tells the system to ignore four characters (T-h-e-space) when determining filing order.

MARC title field, with 2nd indicator set to skip initial article:

```
245 14 $aThe alienated librarian /$cMarcia J. Nauratil.
```

Aleph title browse results, showing that the system is ignoring all the initial articles:

| Alienated : immigrant rights, the constitution, and equality in America |
|---------------------------------------------------------------|-----------------------------|
| The alienated librarian | The alienated "loyal" opposition : Mexico's Partido Acción Nacional |
| An alienated man | The Alienated mind : the sociology of knowledge in Germany, 1918-33 |
| | The alienated mind : the sociology of knowledge in Germany, 1918-1933 |
| | Alienated minority : the Jews of medieval Latin Europe |
| | The alienated reader : women and popular romantic literature in the twentieth century |

---

14 Title proper can be main entry if the resource is not a compilation, there is no known author and the work has never been issued under a different title.
But in field 246 first indicator ‘1’ means that the variant title should be displayed to users and will therefore serve as a note as well as an access point, while the various second indicators correspond to the type of variant title, e.g. ‘Cover title’ (4) or ‘Spine title’ (8), and can generate corresponding captions in public-facing displays.

The **008 fixed length data elements** field consists entirely of positions where machine-friendly codes may be supplied. Many of these codes correspond to RDA free-text elements which are too variable to be easily indexed, e.g. 264 $c dates (coded in 008 positions 7-14) or 300 $b illustration information (coded in 008 positions 18-21). The codes are easy to index, so can be used to provide filters or facets in public-facing displays.

Records for non-book material have additional fixed length data fields.

MARC records also have a number of fields which are used for record management or history, e.g. 001, which contains the system number, and 040, which contains codes for the institutions which created or modified the record, the language of the record and the rules used. RDA records always have ‘rda’ in 040 subfield $e.

### 0.6c MARC on the move

MARC’s machine-readable labels act rather like the labels on boxes in a house move. In the old house the bedroom may be in the attic and in the new house it may be in the basement, but any boxes for the bedroom, whatever their size or content, can nevertheless be expected to arrive safely in the bedroom as long as they are labelled properly.

- Within a system MARC can be used to specify exactly what appears in each staff-facing or public-facing display and exactly what goes into each index, as long as the system is sufficiently customisable. Codes can be translated into user-friendly captions or icons.
- MARC enables records to be moved between systems whose logic is completely different. It can even be used to specify how the parts of a record should be used when exported to a non-MARC system.
- MARC allows whole databases to be migrated between completely different library systems.

Here is a favourite record as it appeared many years ago in a user-friendly display in the public catalogue of the Library of Congress:

---

**Variant titles are not displayed if they are uninformative. For instance, if the title proper is '101 dalmatians' the cataloguer should make an indexed variant title for 'One hundred and one dalmatians' in case a user searches on these terms; but there is no point in displaying a variant which is not found on the resource and needs no explanation.**
There are no MARC codes to be seen here at all, because only specialists want to see MARC codes. LC's electronic system has translated the MARC into captions which mean something to ordinary users, such as Personal Name and Main Title. The text in Type of Material has been generated from a fixed field code.

But if we chose the "MARC Tags" tab, we would find that this record does indeed have MARC codes underlying the captions:
Note the straight stroke or 'pipe' which is used to designate subfield codes in this display.

We could not, however, pull this MARC record into our own system directly from the LC public catalogue. To achieve this we used a program called GeoPac, which could access the servers of external databases as well as the OLIS server. When we accessed the Library of Congress Information System database through GeoPac, we got the same MARC record as shown above, but it looked rather different. GeoPac assigned its own choice of colour to tags, subfield codes, indicators and text, and changed the straight stroke designator to a double dagger. It also had a choice of 'friendly' and MARC views.
From GeoPac the selected record was sent to GeoCat, our old editing module, where it was edited with respect to the few aspects in which OLIS and LOCIS requirements differed and then saved:

For instance, the edited version on the right includes an extra place of publication, London, which AACR2 required us, as a British cataloguing agency, to include. The 440 field was later changed to 490, following a change in the MARC standards.

When the record was saved to OLIS, the system automatically assigned an Oxford serial number (in 001) and institution code (in 003) while the LOCIS serial number, which had become history, was moved from 001 to an automatically generated 035 field.
Once the edited record was saved into the OLIS database it appeared in the OLIS OPAC (= Online Public Access Catalogue). Here it is in our older Telnet OPAC:

<table>
<thead>
<tr>
<th>Local Control #:</th>
<th>18664399</th>
</tr>
</thead>
<tbody>
<tr>
<td>AUTHOR</td>
<td>Nauratil, Marcia J.</td>
</tr>
<tr>
<td>TITLE</td>
<td>The alienated librarian / Marcia J. Nauratil.</td>
</tr>
</tbody>
</table>
| SUBJECT           | Librarians -- Psychology  
|                   | Library science -- Psychological aspects  
|                   | Alienation (Social psychology)  
|                   | Burn out (Psychology)  
|                   | Library personnel management |
| SERIES TITLE      | New directions in information management, 0887-3844 ; no. 20 |
| PLACE             | New York ; London: |
| PUBLISHER         | Greenwood Press, |
| DATE              | 1989. |
| ISBN/ISSN         | 0313259968 (lib. bdg. : alk. paper) |

Here it is in a range of displays in the later web-based OPAC (GeoWeb).

Results list:

The alienated crown [and other sermons] [Pre20 Title] (1)
The alienated : growing old today (1)
The alienated hero in modern French drama (1)
The alienated : immigrant rights, the constitution, and equality in America (1)
The alienated librarian (1)
The alienated "loyal" opposition : Mexico's Partido Acción Nacional (1)
An alienated man (1)
The Alienated mind : the sociology of knowledge in Germany, 1918-33 (1)
The alienated mind : the sociology of knowledge in Germany, 1918-1933 (1)
The alienated minority : the Jews of medieval Latin Europe (1)
The alienated reader : women and popular romantic literature in the twentieth century (1)
The alienated voter : politics in Boston (1)
The alienated women : a study on Polish women's fiction, 1845-1918 (1)

Brief display for preliminary selection:

1: The alienated librarian / Marcia J. Nauratil.
   Author: Nauratil, Marcia J.

Medium-length display.

Author Nauratil, Marcia J.
Title: The alienated librarian / Marcia J. Nauratil.
Description x, 120 p. ; 24 cm
Series: New directions in information management, 0887-3844 ; no. 20
Notes: Includes bibliography (p. [111]-123) and Index.
ISBN 0313259968 (hbk. : alk. paper)
Subjects: Alienation (Social psychology)
Burn out (Psychology)
Librarians -- Psychology.
Library personnel management.
Library science -- Psychological aspects.

As in the Library of Congress public catalogue, the MARC tags are generating captions, but if you compare the original LC record you will see that the OLIS and LOCIS captions are not always the same, and the fields are not invariably in the same order, nor in MARC order at all.
0. Bibliographic records

The user could still move on to a more detailed display, or even to a MARC display:

When the SOLO Resource Discovery Tool was introduced in 2008 this also used MARC codes to get the right information in displays and the right headings in indexes, even though SOLO does not actually operate with MARC records. The OLIS MARC records are converted to SOLO's own PNX records, using the MARC codes to define which parts should go where.

Like the old GeoWeb and Telnet OPACs, SOLO has a wide range of displays and can be customised.

Most recently, the whole OLIS database was migrated to a very different electronic system, Aleph, whose internal logic is quite different from that of the old Geac modules. The whole migration process was controlled by the MARC coding of the records. We do not have an Aleph OPAC, since SOLO is well integrated with Aleph and can give users information about individual copies as well as bibliographic items, but the Aleph Client used by staff is very rich indeed in different displays. Here are just a few:
Is it worth the trouble?

So that is why cataloguers have to use very complex rules rather than trusting their own common sense. But is it worth it?

We must all have known the frustration of being quite unable to track down something we really want or need, especially when we are quite sure that a library must have it, or of having reserved a pile of useless stuff because we couldn’t tell from a catalogue whether it was the kind of stuff we needed. Such frustrations interfere either with a user’s work, which may be important, or with a user’s leisure, which is also important. Again, anyone who has catalogued for any length of time knows how much time and energy can be wasted on checking or repeating work which was done before but not clearly or accurately recorded – and that waste means fewer items catalogued, or resources diverted from other services, at the expense ultimately of colleagues and library users.

So good cataloguing is at least a real courtesy and kindness, and often also a substantial contribution to valuable work. We do not invariably think of cataloguing rules as contributing greatly to the sum of human happiness; but basically, that is what they exist for.
Appendix: Why RDA? FRBR and linked data

The new RDA standard was introduced with the aim of making library data more suitable for the FRBR user tasks and more compatible with data from other sources. It presents data in a neutral and granular way, not geared to ISBD punctuation or the MARC format, which should make it much easier for the data to be used by a wide range of people for a wide range of purposes. This should enable libraries to 'harvest' data from a wide range of sources, not just from other libraries, and thus to offer encyclopedic and integrated information going beyond that currently found in library cataloguers. It should also facilitate the integration of library data into the world of 'linked' and 'open' data, also known as the 'semantic web'.

Because RDA is not intended just for library use it is less prescriptive than AACR2, allowing a range of levels of detail and transcription practices. A kind of 'common law' is emerging among major cataloguing agencies, based on the Library of Congress/Program for Cooperative Cataloguing Policy Statements (LC-PCC PS) and many informal discussions and exchanges of documentation, in order to achieve an adequate level of consistency for record exchange; but we nevertheless expect that in future there will be more variation in the records available for import into OLIS. Because some records are imported by automated processes, this will inevitably mean more variation in OLIS records.

The FRBR approach

FRBR adopted an “entity analysis” technique from the field of database development, focusing on the entities (= 'objects of interest') which are of most importance for the user tasks (see 0.3a) and the relationships between those entities. (Rather like designing a website: in order to arrange the information helpfully or attractively you have to decide which ‘things’ are important and coherent enough to have separate pages and what links there should be between the pages.) Each entity has a range of attributes, which are the facts about that entity.

The FRBR report came up with three groups of entities. Ideally each entity would have its own record, listing its attributes and providing links to related entities; but this cannot be achieved in a MARC environment.

The FRBR entities

Group 1 entities

A hierarchy moving from abstract intellectual or artistic ideas through various levels of specificity to individual copies. This might provide a model for intuitive clustering of a library’s records in public-facing systems, allowing the user to be guided methodically from vague notions about content, subject matter or authorship to the most suitable concrete items available.

- Work - a ‘distinct intellectual or artistic creation,’ such as Carroll’s Alice’s adventures in Wonderland or the Disney film Alice in Wonderland. Entities in different intellectual/artistic forms, e.g. novels, films, plays, paintings, maps, sonatas, concertos, are always considered separate works. The attributes associated with works include creation date and form (e.g. novel, essay, play, painting). Records for works are included in the Library of Congress Name Authority File.
• **Expression** - the intellectual/artistic realisation of a work as particular words, notation, sounds, images, movements, shapes, etc. An expression of Carroll’s Alice’s adventures in Wonderland would be a particular edition in a particular translation in a particular language in a particular broad medium (e.g. text or audio), perhaps with subordinate intellectual/artistic additions such as illustrations or an introduction or notes. The attributes associated with works include various dates (e.g. of edition or translation or illustration), language and medium (e.g. text or audio). Records for expressions are included in the Library of Congress Name Authority File.

• **Manifestation** - the embodiment of an expression in a physical form, as a particular publication, production or similar. The attributes associated with manifestations include title proper, date of publication and physical dimensions. (Ordinary MARC bibliographical records are more or less records for manifestations, but they include a few things, such as information about illustrations, which according to FRBR are expression-level.)

• **Item** – a particular instance of a manifestation, e.g. a copy of a book or a video or a performance of a ballet. The attributes associated with items include barcode, condition and provenance.

**Group 2 entities**

The kinds of thing which can be responsible for the intellectual/artistic content and the physical embodiment of a resource. Records for all these entities are held in the Library of Congress Name Authority File. Group 2 entities can be referred to collectively as ‘agents’.

• **Persons** The attributes associated with persons include dates of life or activity, gender, language, occupations and activities.

• **Families** Some of the attributes associated with persons are also relevant to families.

• **Corporate bodies** = named groups capable of acting as a unit, e.g. businesses, societies, conferences, performing groups. The attributes associated with corporate bodies include dates of existence and main activities.

**Group 3 entities**

The kinds of thing which are often the subject matter of resources. The corresponding part of RDA has not yet been written, except for a section on places, and the rest is likely to consist of broad principles rather than detailed instructions, so we will continue to use LCSH for subject cataloguing for the foreseeable future.

• **Concepts**

• **Objects**

• **Events**

• **Places**

**The FRBR relationships**

**Primary relationships**

The Group 1 entities are related hierarchically: a work is realised in its various expressions; an expression is embodied in its various manifestations; and a manifestation is exemplified by its various copies.

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16 ‘Physical’ forms include electronic realisations.
Non-hierarchical relationships between Group 1 entities

There can also be non-hierarchical relationships between Group 1 entities. For instance:

- A film is a work in its own right; but it might be based on another work, e.g. a play or a novel, which belongs in a different hierarchy.

- A published English-language audiobook set, e.g. for *The Lord of the Rings* is itself a manifestation; but it contains expressions of the three parts of ‘The Lord of the Rings’, i.e *The fellowship of the ring* in an English audio version, *The two towers* in an English audio version and *The return of the king* in an English audio version.

Relationships between Group 2 and Group 1 entities

These are the relationships between works, expressions, manifestations and items and the agents (people, family or corporate bodies) which are responsible for them in some way or associated with them. For instance:

- Tolstoy is the author of *Voina i mir* (a work).
- Constance Garnett is the translator of the 1911 translation into English (an expression).
- Heinemann is the publisher of the 1961 edition (a manifestation).
- The Bodleian is the current owner of a 1983 copy which lacks p. 313 (an item)

The following diagram shows two FRBR hierarchies, one for the novel *Voina i mir* and one for a film based on it. The primary relationships are shown by red arrows and the others by blue arrows.¹⁷

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¹⁷ To save space, the names are not shown in their authorised NACO forms and only a few attributes are mentioned for each entity. The primary relationships are only labelled for the novel.
Someone looking for information could enter at any point and move in any direction, either pursuing a chosen objective or just following whatever links look interesting. For instance, someone might look up 'Constance Garnett' because she is his grandmother, learn that she translated *Voina i mir*, and follow the hierarchy down to choose a particular publication and a particular copy. Alternatively, the person might follow the hierarchy up to the work, find a link to *Wikipedia* in the work record, learn that the novel is long, historical, philosophical and heavy going in places, and decide instead to follow the link to the film and from there down to a copy of the film; or might just stay with *Wikipedia* and find out more about Napoleon.

*Other relationships*

RDA also covers relationships between Group 2 entities, for instance between parents and children, firms and employees or societies. These do not feature in ordinary bibliographic cataloguing, but NACO records do include some such relationships, and, as library data becomes part of the wider world of linked data, the library catalogue will increasingly guide users towards discovering such relationships from non-library information resources.

RDA also plans to cover relationships involving Group 3 entities.

*RDA without MARC?*

MARC has been expanded to accommodate various new elements required by RDA and to allow more granularity, for instance by having separate fields in bibliographic records for publication, distribution, production and copyright and by having a separate subfield for ISBN qualifiers. NACO authority records, which are now information resources in their own right rather than mere aids for individuation, have been enriched with the extra fields they need for dates, locations, languages, occupations, activities, etc. However:

- MARC still is not granular enough to mark up each distinct RDA element, and is therefore of limited use for selective data harvesting.
- MARC bibliographic records blur the distinctions between works, expressions and manifestations.
- MARC is not good at showing relationships.
- Because of its complexity, MARC is little used outside libraries.

In 2012 the Library of Congress launched the Bibliographic Framework Initiative, 'BIBFRAME',18 which, it is hoped, will provide a conceptual/practical model for fully FRBR-compliant library systems of the future. However, one of the greatest challenges for BIBFRAME is that it must be able to make good use of all the library data which is currently in MARC format and to maintain record-exchange between MARC and non-MARC systems during what is likely to be a very long transition period.

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18 For more about BIBFRAME, see http://www.loc.gov/bibframe