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# Cataloguing

## Philip Keates

**The rules**
*IFLA-LRM*
In August 2017 IFLA (the International Federation of Library Associations and Institutions) published the *IFLA library reference model: a conceptual model for bibliographic information*.[1] This model consolidated the three separately developed IFLA conceptual models: FRBR (Functional Requirements for Bibliographic Records), FRAD (Functional Requirements for Authority Data), and FRSAD (Functional Requirements for Subject Authority Data). The impact of these changes upon RDA (including the need to create entirely new *Collective Agent, Nomen,* and *Time-span* entities) were summarized by Kathy Glennan, RDA Steering Committee (RSC) representative of the American Library Association (ALA) in 2017.[2]

*RDA*
At the end of 2015 it had been agreed that certain changes would take place regarding UK representation on the body overseeing the development of RDA (*Resource description and access*), the successor cataloguing standard to *AACR2* (*Anglo-American cataloging rules*, 2nd edition). The RDA Steering Committee (RSC) was to move from individual institutions (CILIP and the British Library in the UK) having allocated seats, to a model where six regional organizations would each nominate a regional representative. Four to five years were allocated for the change to take place, and EURIG (European RDA Interest Group), which had existed since 2011, became the organizing body for European representation on the restructured steering committee.[3] These changes necessitated the transformation of the British Library and CILIP's coordination committee into a regional body for the UK, and so the CILIP/BL Committee on RDA formally became the UK Committee on RDA (UKCoR) in early 2018.[4]

In 2017 the RDA Toolkit Restructure and Redesign (3R) Project began, with the goal of enhancing the RDA Toolkit website. The aim was to

> go beyond changing the look and feel of the site and seek to add greater flexibility and utility to the Toolkit's display of instructions and RDA-related documents. The restructure portion of the project will involve a major rebuild of the instruction repository in order to bring it in line with current data management best practices, make RDA data more modular and dynamic, and allow the RSC to track and manage a greater range of metadata associated with the instructions'.[5]

Furthermore, the project would 'aim for compatibility between the current RDA entities and elements and the LRM, and … [would] use the LRM to guide the development of RDA Toolkit for international, cultural heritage, and linked data communities'.[6] By September 2019 the RDA text on the beta site had been stabilized,[7] and the beta toolkit was elevated to official RDA status in December 2020. The decision on when to begin the year-long 'countdown clock' for removal of the original Toolkit was to take place at an unspecified later date.

### RDA training

The British Library's 'RDA in a Day' training sessions, run and re-run throughout 2016–17 in London and Sheffield, proved very popular. Alan Danskin of the British Library held an 'RDA in/for smaller libraries' event for the Association of Pall Mall Libraries (APML) in April 2016, aiming to improve awareness and aid decision-making on RDA implementation.

RDA Orientation Workshops were held in Edinburgh and Birmingham in November and December 2019 respectively.[8] Both days began with presentations from Alan Danskin (British Library), Thurstan Young (British Library), and Gordon Dunsire (RDA Steering Committee), and then moved on to practical sessions, where RIMMF (RDA in Many Metadata Formats)[9] was used to explore different scenarios using elements and concepts from the RDA beta toolkit.

A 2019 Cataloguing and Indexing Group Scotland (CIGS) RDA event took the form of a Jane-athon (i.e. a practical workshop focusing on describing Jane Austen resources in RDA). The success of this event inspired a similar 2020 RIMMF4 training offering, a joint Mercian Collaboration, UKCoR, and CIG event held in Birmingham.

## MARC and linked data

MARC saw some new fields and amendments during 2016–2020, although generally of smaller scale and impact than previous changes. Notable additions include a new 341 field concerned with accessibility features, a 758 'Resource Identifier' field able to accommodate FRBR works, expressions, manifestations, and items, and a LDR 18 'Descriptive cataloging form' option *n – Non-ISBD punctuation omitted*. The $4 subfield applicable to the 76X-78X linking fields was also 'renamed and redescribed to allow for the recording of relationship URIs in addition to MARC and non-MARC codes'.[10]

Following the final report of the Program for Cooperative Cataloging (PCC) ISBD and MARC Task Group in 2016,[11] the PCC produced guidelines for creating MARC records without ISBD punctuation.[12] The rationale was laid out in a 2017 Joint Operations Committee (OpCo) document:

> In brief, the rationale for removing the ISBD punctuation is that since the ISBD punctuation was designed for the card catalog format, it is now an unnecessary burden within MARC; and that, as we prepare for a post-MARC bibliographic environment, the ISBD punctuation is a hindrance to that transition.[13]

Pessimism about the slow pace of movement away from MARC, given as a reason for removing the punctuation now, seemed no less valid at the end of 2020 than it did when the paper was written. The practice did not seem to have been adopted to any noticeable degree in records available in the UK, however.

## BIBFRAME

European BIBFRAME Workshops were held in Frankfurt (2017), in Florence (2018), in Stockholm (2019), and online (2020). From 2019 onwards, however, there were no attendees sent by either the British Library or MDG, reflecting the decidedly muted enthusiasm for the model in the UK. The lack of a governing body, limited organizational uptake, long timescale for Library of Congress adoption, redundancy suggested by the existence of a two-way crosswalk, and an inability to faithfully represent the FRBR/IFLA-LRM conceptual framework have all been suggested as reasons why the British Library has been unwilling to lead the adoption of the model in this country.[14]

## Wikidata

Wikidata offered a gateway into the world of linked data for many during this period. The National Library of Wales announced the elevation of Jason Evans from Wikimedian in residence to 'National Wikimedian' for Wales on 2 August 2017—'one of the world's first full time, fully funded, permanent Wikimedia posts at a GLAM' (galleries, libraries, archives, and museums) institution.[15] He presented MDG's first webinar on 29 January 2020 ('Leveraging Wikimedia at the National Library of Wales'), and gave a lightning talk at MDG20 ('Creating and enriching linked data with Wikidata').[16] He has argued that 'converting traditional metadata to linked open data can help to enrich datasets, improve user experience, and offer new insight into old collections'.

The University of Edinburgh was the first university in the UK to employ a university-wide Wikimedian in Residence (Ewan McAndrew), starting in January 2015 as a part-time, fixed term post, and incrementally developing into a full-time, open-ended post by January 2019.[17] The university's Open Access 'Wikimedia in education' booklet, produced in collaboration with Wikimedia UK, offers a selection of case studies on the educational uses of Wikimedia.[18]

Bodleian Libraries, Oxford, and Wikimedia UK collaborated on a project from April 2015 to March 2016, employing Dr Martin Poulter as Wikimedian in Residence for this period.[19] Following this he worked on the October 2016–April 2018 project 'Embedding Innovative use of Wikimedia across the University',[20] and from November 2017 to October 2019 he worked to select and share datasets from Oxford's Gardens, Libraries and Museums (GLAM) as Linked Open Data in Wikidata.[21]

Although London School of Economics did not employ a Wikimedian in Residence, Metadata Manager Helen Williams was inspired by the conversa-

tion around Wikidata, and, beginning in 2019, worked to incorporate data from LSE Theses Online (LSETO) into Wikidata as a proof-of-concept project, which would have the added benefit of promoting the work of researchers. Her rationale and process are described in her 2021 *Catalogue & index* article.[22]

*Technical skills training*

Technical skills training for library staff continued to be provided by the expert Library Carpentry trainers.[23] Face-to-face Library Carpentry sessions were offered from 2017 until early 2020 at the University of Sheffield, the National Archives, the University of Edinburgh, the University of Manchester, and Durham University. All the sessions provided a 'Data Intro for Librarians' and an introduction to OpenRefine, with some also delving into Python programming, the Unix Shell, and/or R. The pandemic called a halt to such training, but the MDG committee managed to secure the services of the experts for a series of four free online Library Carpentry metadata workshops in November and December 2020.

The need for such training was clearly very high, as the sessions were regularly overbooked, but sadly, as with many other metadata training needs, there was not the supply available to fully meet demand (entirely understandably, as provision is highly labour- and study-intensive for the trainers). Whether the increasing use of online platforms for training provision can go some way towards alleviating this remains to be seen. Some training is clearly better delivered in person, but, conversely, it may be easier to entice experts to share their skills (particularly in MarcEdit, for which there was a recognized lack of provision) if they do not have to travel.

The dearth of MarcEdit training was offset by a London visit from the creator of MarcEdit himself, Terry Reese, on 6 June 2019, to a reception possibly as close to hero-worship as the reserved British cataloguing community is ever likely to allow. Speaking at UCL, he answered questions about MarcEdit, discussed character encoding issues, and gave his thoughts on the future of metadata. A recording of the talk is available on the MDG YouTube channel.[24]

## Education

The institutions below (presented in alphabetical order by name) offered a metadata component to their courses in librarianship and related disciplines during the period 2016–2020. Other institutions may have offered similar, but staff were not available to comment.

The Department of Information Studies at Aberystwyth University aimed to ensure that students were introduced to relevant cataloguing and metadata standards across the discipline as appropriate for their chosen degree. All Information and Library Studies degree students were introduced to cataloguing in the Information Organization and Retrieval module, the cataloguing element of which provided an overview of cataloguing standards and practices, exploring the history of cataloguing from the Paris Principles through

AACR to MARC, metadata, RDA, BIBFRAME, FRBR and beyond. The postgraduate degree programmes in Archives and Records Management and Digital Information and Media Management introduced students to relevant metadata standards such as Dublin Core PREMIS, METS, and ISAD(G), and specialist techniques for cataloguing oral histories, as well as how to crosswalk between schemas, to use thesauri for authority control, and to create linked data and persistent identifiers. XML (DC XML and EAD), RDF, and JSON were also covered.

Cataloguing and classification, and metadata more broadly, were key elements of the Information Organisation module taught at the University of Sheffield Information School, as part of their Librarianship MA and Library and Information Services Management MA programmes. Coverage of the organizing principles of metadata was then applied to the cataloguing sections, which were delivered by colleagues from the University Library, and provided students with practical experience of cataloguing within a library management system.

After joining the University of Strathclyde in 2015, Dr Diane Pennington completely refreshed the metadata component of their MSc/PgDip in Information & Library Studies. Following her work, students were taught how to organize, classify, describe, and catalogue information for efficient access and retrieval, and learnt about taxonomies, thesauri, metadata schemas including Dublin Core, and library cataloguing standards such as MARC21 and RDA.

University College London offered two separate modules in the areas of cataloguing and classification during the period 2016–2020: a core module in cataloguing and classification and an optional module in knowledge organization. The former combined practical cataloguing in RDA and MARC21 with a strong conceptual framework, and introduced modern cataloguing practices such as mass editing. Ethical considerations and the importance of a user-centred focus were recurring threads. The latter knowledge organization module, open to students on courses beyond librarianship, covered a range of knowledge organization systems whilst rooting discussions in the scholarly literature, and, again, ethical considerations were key throughout.

The MSc Information Management at University of the West of England contained a compulsory Knowledge Organization module covering a wide range of metadata concepts and models, from databases and XML to folksonomies, and including an introduction to FRBR. Students were encouraged to become members of ISKO (International Society for Knowledge Organization) and the Society of Indexers if interested in cataloguing and classification.

If any conclusion can be drawn from this small selection, it might be that, although cataloguing and metadata education was not widely available, and many future librarians may have missed out on a vital and fundamental element of librarianship, at those places where it *was* taught, such education was

forward-looking, holistic, and beginning to engage with the subject's ethical considerations.

**Cataloguing and Indexing Group/Metadata and Discovery Group**
Robin Armstrong-Viner (University of Kent) stepped down as Chair of CIG in 2017, having been in the role since 2014. He was succeeded by Dunia Garcia-Ontiveros (the London Library), who held the position from March 2017 until December 2018. She was followed by Jane Daniels (Cardiff Metropolitan University), who was Chair until the very end of 2020, when she handed over to Dr Diane Pennington (University of Strathclyde) for the start of 2021.

One of the most significant undertakings for the group was the rebrand from CIG to MDG. The decision to implement the change was based on feedback following the 2018 CIG conference and from the 2018 membership survey, which indicated that including 'Metadata' in the group name would more accurately reflect the work carried out by members, and would more effectively communicate the importance of their roles within their organizations.

Following communication of the move to the group's members, and voting by the committee and the membership, the name 'Metadata and Discovery Group' (MDG) was selected, and in July 2019 permission to change was sought from CILIP. Ratification was confirmed later in the year, and most administrative changes involved were completed by the end of 2020.

The rationale for the rebrand was further communicated by Jane Daniels in the March 2020 issue of the group's journal *Catalogue & index*,[25] and the importance of the change underlined in a guest editorial by CILIP CEO Nick Poole in the same issue, in which he stated:

> this is about much more than just a change of name. It is a recognition of the central role of metadata and discovery in today's information profession.[26]

The change of name was accompanied by a new logo designed by Will Peaden, which merged the group's initials into the image of an open book.

*Catalogue & index*
Karen Pierce was co- (and, at points, solo) editor of *Catalogue & index* for most of this period, passing on the baton only when compelled by committee membership regulations. Helen Garner left in 2017, and Deborah Lee joined Karen from the March 2017 issue. After a brief interregnum Karen was joined by the present author from June 2019. Martin Kelleher volunteered to replace Karen when she stepped down at the very end of 2020.

The journal continued to be published in a quarterly, online-only format, with each issue looking at a particular topic. Some key milestones included the first issue to be published with an Open Access licence (CC-BY 4.0, from March 2016),[27] and the publication of the 200th issue, a special bumper volume containing reminiscences from past editors and a selection of high-lights from the journal's extensive archives. It was decided to retain the name

*Catalogue & index* for the journal following the rebranding of the group, both to ensure consistency and to honour the roots of the profession.

*Conferences*

The 2016 CIG conference, focusing on innovation and discovery, was held at Swansea University on 31 August–2 September 2016. Bernadette O'Reilly's cautionary tale of well-travelled metadata (and hypothetical passport fraud) is still essential reading, reminding us, as it does, of the dangers of changing the descriptive details in an imported record but forgetting to edit the machine-readable fields.[28] 'Aura', the innovative new FRBR-based, format-agnostic database employed by Bibliographic Data Services (BDS), was described by Jenny Wright, and many other revealing practice-based papers were delivered.[29]

CIG18 ('Create, share, enrich') took place at the John McIntyre Conference Centre in Edinburgh, on 3–5 September 2018. The handling of unusual resources was described by Andrea Del Cornò (looking at *Per Nozze*, Italian ephemera celebrating weddings, from the London Library), and by Joshua Barton (covering the ethics of Zine cataloguing at Michigan State University). Use of the catalogue itself as a tool for research was explored from the positions of both researcher and librarian. Melissa Terras (Professor of Digital Cultural Heritage at the University of Edinburgh) showed in her keynote speech just how important accurate and descriptive metadata can be for digital humanities researchers, whilst Jane Daniels, in a talk on 'metadata memory', explored how our drive to make our catalogues up-to-date potentially obscures what collections *used* to look like, and how they *used* to be described, limiting our ability to interrogate past practices. The third day of the conference was designated an 'RDA day', focusing on improving awareness of, and engagement with, the standard—a popular move that looks set to continue for the immediate future. For a more detailed review of the conference by Frances Marsh, and write-ups of many of the presentations, see *Catalogue & index* 193.

The 2020 MDG conference on 'Bigness' was to be held in Birmingham, but the pandemic, of course, derailed these plans. Furious work by the MDG conference sub-committee, however, meant that the conference was still able to take place, though now in a virtual environment on Zoom. Comfort with the format was not, at this stage, what it would later become, but the event was still a great success despite the difficult circumstances, with hundreds of attendees, excellent presentations, and the fostering of a sense of community that, whilst no substitute for meeting in person between sessions, was still exactly what was needed at the time. The success of the online format for the conference led the subcommittee to investigate holding an online one-day 'mini-conference' in 2021, with an eye toward potentially making these regular events in the years between (hopefully) 'in-person' biennial conferences. Highlights of MDG20 included the engaging keynote speech from Violet Fox (DDC editor with OCLC), and papers on the all-important

connection between metadata and procurement by Jenny May (Imperial College London) and Emma Booth (University of Manchester). We will return to this topic later in the chapter. Recordings of the presentations are available on the MDG YouTube channel,[30] and write-ups of a number of talks can be found in *Catalogue & index* 201.

In addition to organizing the specialist CIG/MDG conferences above, the committee advocated for inclusion of more technical, metadata-focused pieces within the main CILIP conferences, to reflect the position of metadata skills as fundamental elements of librarianship, rather than purely of niche interest. A letter from the committee, formally expressing concern at the under-representation of technical librarianship at recent CILIP conferences, and pointing out that the British Library considered metadata to be one of its four main strategic assets, was sent to senior CILIP staff in 2017.[31] The letter's recipients embraced both the idea of a 'technical strand' within the CILIP Conference and engagement from the relevant Special Interest Groups in its creation.

In 2018 this technical strand included talks by David Haynes, Chair of ISKO (International Society for Knowledge Organization) UK, and Dr Deborah Lee of the Courtauld Institute of Art.[32] Catherine Cooke of BIC (Book Industry Communication) also presented on the BIC Library Communications Framework.[33]

In the 2019 'RDA, ISNI and Linked Data' technical strand, Jenny Wright of BDS discussed RDA, Tim Devenport and Andrew MacEwan of the British Library spoke on ISNIs in the book supply chain, and Richard Wallis of Data Liberate talked about what a truly connected discovery infrastructure might look like.[34] Jez Cope and Antony Groves of Library Carpentry also led a practical session as part of the 'Technical Skills' strand.

In 2020 Jane Daniels (Cardiff Metropolitan University) chaired a presentation and Q&A on the recently released OCLC report 'Transitioning to the next generation of metadata'.[35] Speaking were the report's author Karen Smith-Yoshimura and UK OCLC focus group member Helen Williams of LSE.

### Alan Jeffreys Award

The Alan Jeffreys Award[36] (established in 1996 in honour of the former Group Chair) was presented to Professor Vanda Broughton in 2018 'for her significant contribution to teaching and professional education in the U.K. and to the classification community worldwide', and to Dr Karen Pierce in 2020 'for her work in promoting and advocating the importance of cataloguing and metadata management during her six-year tenure as editor of *Catalogue & Index*'. There were no recipients of the award in 2016–17 or 2018.

### CIGS/MDGS

Graeme Forbes stepped down as Chair of Cataloguing and Indexing Group Scotland (CIGS) in 2016, and Paul Cunnea was elected in his place. The group happily adopted the new 'Metadata and Discovery' moniker, becoming MDGS shortly after their sister group became MDG.

As usual, the group hosted a number of high-quality events. A one-day seminar on 'Metadata and linked data', held in Edinburgh on 12 September 2016, included speakers from the British Library, the Bibliothèque nationale de France, the Universities of Edinburgh and St Andrews, the RDA Steering Committee, and the National Library of Scotland, and was attended by 50 delegates from around the UK and Europe.[37]

'Somewhere over the rainbow: our metadata online, past, present & future', the seventh seminar in the CIGS Metadata & Web 2.0 series, took place on 5 April 2017 at the National Library of Scotland. The seminar included seven presentations by speakers from the National Library of Scotland, the British Library, EDINA, the University of Edinburgh, the University of Strathclyde, and 5Rights Youth Commission. Topics ranged from personal metadata, gaming, digital rights, transcription, and crowd sourcing, to the emotional analysis of music online.

7 June 2019 saw 'The future of cataloguing: a CIGS World Café Workshop', an event which broke successfully from the traditional seminar format. Details can be found in the report by Natasha Aburrow-Jones and Paul Cunnea.[38] The event was re-run in Birmingham on 20 August 2019 courtesy of the Mercian Metadata Special Interest Group (of which more later),[39] and in London on 19 November 2019. The London event was overbooked and a second was planned to follow in 2020 in association with the British Library, but the Covid-19 pandemic saw these plans put on hold until 2021 at the earliest.

*Wales*
Cataloguing in Wales was heavily influenced by the shared library management system (LMS) adopted by higher education institutions in the country—Ex Libris's Alma went live for the consortium in 2016. WHELF (Wales Higher Education Library Forum) set up a Cataloguing Collaboration Project Board to reconcile standards, and a 'Shared LMS Cataloguing harmonisation meeting' was held at Gregynog Hall, Newtown on 7/8 March 2017, with discussions facilitated by Bernadette O'Reilly of the Bodleian Library, Oxford. MarcEdit training was also provided for WHELF cataloguers at the National Library in Aberystwyth in 2018. In late 2019 the WHELF cataloguers group was beginning the work of formalizing a Chair position (or two co-Chairs) in line with the other WHELF groups, and was considering whether a NACO funnel might be implemented for Wales in the future. Their group cataloguing templates provided inspiration for librarians outside Wales.

The 2018 CILIP Cymru Wales Conference included a strong cataloguing component within the 'Technical services and data; from cataloguing to KIM' topic, thanks to the advocacy of Amy Staniforth. Papers looked at AWHILES medical library cataloguing (Karen Pierce), Artists' books cataloguing (Christine Megowan and Doreen Barnaville), and WHELF shared practices (Amy Staniforth).

A number of targeted training events were provided in Wales, based on assessment of demand. A very successful training day on cataloguing artists' books was held at Cardiff University on 12 February 2018, funded by WHELF, with presentations from a number of experts, including Maria White, co-author of the ARLIS guide, *Artists' books: a cataloguer's manual*.[40] A seminar titled 'Creating, sharing, and measuring the impact of Public Library digital content' was also provided through the joint efforts of CILIP Cymru Wales (CCW), MDG, CILIP Local Studies Group and People's Collection Wales (PCW) on 20 November 2020, with the aim of allowing colleagues in public libraries to enhance their metadata skills and to increase the content on the PCW portal.[41]

## ARLIS

Cataloguing support for specialist art librarians was provided through the efforts of the UK & Ireland Art Libraries Society (ARLIS). 'Beginners' Guide to Cataloguing: AACR2 and MARC21 Basics', a re-running of a previous course, was held at the National Portrait Gallery on 10 March 2017, and was very well received. Other offerings included sessions on FRBR and LRM, and a workshop on Zine cataloguing at the ARLIS 2018 conference, courtesy of UK and Ireland Zine Librarians (UIZL).[42]

The ARLIS Cataloguing & Classification Committee saw Nicky Ransom step down as Chair in January 2018, to be succeeded by Yamuna Ravindram and Debbie Lee as co-Chairs.

## Regional groups

The period 2016–2020 saw the formation of three regional groups dedicated to cataloguing in higher education. Two were formed as Special Interest Groups within regional subgroups of the Society of College, National and University Libraries (SCONUL)—the Mercian Metadata Group in March 2019 as part of the Mercian Collaboration, and the Metadata/Linked Data Technical Group in June 2019 as part of the Northern Collaboration, representing academic libraries in the Midlands and North of England respectively.

The south of the country, however, lacked a regional professional body with a structure capable of formalizing permanent special interest groups, and the Metadata and Discovery Southern Interest Group (MADSIG) instead developed more organically out of the Southern Universities Purchasing Consortium (SUPC) and London Universities Purchasing Consortia (LUPC) over the course of 2020, largely through the efforts of SUPC Category Manager Gavin Phillips. Brief overviews of the foundations and activities of all the groups can be found in *Catalogue & index* issue 200.

## Subject indexing
*LCSH vs FAST*

CIG's successful 'LCSH in a day' training course was repeated on the 23 November 2016, with Janet Ashton from the British Library as trainer.

The British Library's investigations into Faceted Application of Subject Terminology (FAST) headings, described in the previous volume, continued. A feasibility case study was published in 2017 in *Cataloging & classification quarterly*, with an update appearing in *Catalogue & index* in 2021.[43] One major point of concern for the British Library was whether FAST would be supported long-term by OCLC, and it was felt that the latter's commitment to the product could best be assured through active involvement by both the British Library and the wider library community. To this end the FAST Policy and Outreach Committee (FPOC) was established in 2018, with Alan Danskin as British Library representative and Committee co-chair.

Use of FAST continued to spread throughout the British Library, though at different paces in different departments. Legal deposit print monographs, for example, were excluded from FAST heading application from the start of the project owing to the library's contractual commitments with users and partners (although many OCLC-derived records included FAST headings anyway). The scheme was found to be particularly useful when applied to backlog-clearing projects, as it meant that subject access could be provided by specialists in particular fields without the need to train them in the complexities of LCSH. British Library staff aimed to raise awareness and mitigate concerns through advocacy for the FAST scheme, which including an MDG-branded introductory webinar by Janet Ashton and Caroline Kent on 1 July 2020.[44]

The issues around outdated and offensive terminology included within universal subject headings schemes—specifically LCSH—came into sharper focus than ever during the period 2016–2020, and at times even prompted heated discussion outside the usual rarefied circles of library specialists. The major story was that of the Dartmouth College students in the US who spearheaded the campaign to amend the anti-immigrant language of LCSH. The documentary *Change the subject* (2019) chronicles their fight.[45] The film-makers support public screening of the film for education, and it had its (online) UK premiere on 3 February 2020, followed by a panel discussion featuring Eve Lacey (Newnham College, Cambridge), Ludi Price (SOAS), and Tom Meehan (UCL). A scheduled live screening at the University of Sussex later in the year was cancelled due to the pandemic.

## Cataloguing ethics

As well as the growing awareness amongst librarians of the responsibilities surrounding subject analysis, there was, more broadly, an increasing recognition amongst library staff on both sides of the Atlantic that cataloguing is not a 'neutral' profession, and that to catalogue responsibly one must be ethically aware.

In April 2018, following a request from Jane Daniels (on behalf of CIG) for UK involvement, and a subsequent reaching-out to Canada, CaMMS agreed to the formation of an international group to begin work on creating a 'Cataloguing Code of Ethics'. This Cataloguing Ethics Steering Committee,

comprising US, Canadian, and UK members, held its first meeting in February 2019.

Jennie-Clare Crate summarized the need for such a code:

> Professional codes of ethics for librarians already existed, including those published by IFLA, the ALA, and CILIP's Ethical Framework, but none of these specifically addressed the ethical responsibilities encountered by cataloguers when describing and classifying library stock.[46]

Six working groups were formed to look at specific topics, and these met regularly online throughout 2019, submitting final reports to the steering committee in November 2019. Following the committee's reading of the reports, the aim was to produce a draft document by March 2020, although the pandemic meant that this deadline would be pushed back to January 2021. The code can be freely accessed as a Google document.[47] The intention following initial publication was to seek shareable case studies to support the ten principles of the Code.

Whilst creation of the Code of Ethics was a necessity, and the final document is challenging and thought-provoking, Jennie-Clare admits to reservations around the makeup of the working groups. As self-selecting volunteer bodies primarily (though, it should be noted, not exclusively) deriving membership from regional professional bodies (CaMMS, MDG, and the Cataloguing and Metadata Standards Committee of the Canadian Federation of Library Association/Fédération canadienne des associations de bibliothèque, or CFLA-FCAB), they risked reflecting the gender imbalance and power dynamics of librarianship at large, and may have missed gathering the input of some of the very groups such a code would aim to protect. We may see concerns such as these addressed by future revisions of the code, however.

## NACO

Discussions continued in this period over setting up a NACO (Name Authority Cooperative Program) funnel in the UK, in order to engage more effectively with name authority creation, following Deborah Lee's 2012 proposal.[48] Considerations included the training investment required, and availability of the infrastructure required to make the connections—was an OCLC subscription required for involvement in the funnel?

Martin Kelleher (whose work with authority headings and OCLC WorldShare is described in his MDG20 *Catalogue & index* report)[49] volunteered in late 2020 to take the lead on feasibility investigation and advocacy for the funnel, on behalf of the MDG committee.

## The UK metadata ecosystem
### Metadata 20/20

In late 2017, the 'Metadata 20/20' project was conceived to 'advocate for richer, connected and reusable open metadata for all outputs'.[50] Signatories were sought from across the world, and from all stages of the metadata

lifecycle. The project's outputs were to include high-level principles, 'practices' describing how these might be achieved, and a set of 'personas' intended to demystify the ecosystem. The impact of the project upon British metadata is difficult to judge—it could be argued that the few British organizations represented by signatories, such as Cambridge University Press, were those that *already* employed highly skilled metadata professionals, eager to engage with such initiatives, whilst companies that put less of a premium on quality metadata remained unmoved.

*NBK*

In 2016 Jisc's Neil Grindley put a name to the database intended to meet the recommendations contained in 2014's national monograph strategy roadmap[51]—the 'National Bibliographic Knowledgebase' (NBK).[52] The intention was to create

> a transformative new national service that will aggregate bibliographic data at scale and link with a number of other data sources to help users to more effectively find, access and use print and digital scholarly resources.[53]

The service was to replace the older union catalogues COPAC (Consortium of Online Public Access Catalogues) and SUNCAT (Serials Union Catalogue).

By January 2018 the first, 'alpha', phase of the project was complete. Metadata from 60 institutions had been loaded onto OCLC's infrastructure, and a beta interface was in place. During June/July 2018 Jisc conducted a community survey to inform development of the NBK, the results of which offer an interesting snapshot of metadata usage and considerations at the time.[54] By December 2018, changes had been made to the basic NBK data model—an Elasticsearch indexing engine was included to provide speed and flexibility for the discovery layer, and the decision had been made to divide the data into cataloguing and discovery instances.

This division was seen as a way around the licensing issues that had been revealed. Many records circulating around UK catalogues had originally been licensed from specialist metadata creators—in particular BDS—and these creators were, understandably, reluctant to see their business models undermined by the free sharing of their products. Separating uploaded records into downloadable ('Library Hub Cataloguing') and view-only ('Library Hub Discover') databases, depending on original source, meant that records of restricted shareability could still be used to aid discovery of resources on a national level.[55]

On 4 February 2019 Library Hub Cataloguing and Library Hub Discover went live as pilots,[56] and on 31 July 2019 Library Hub Discover formally took over from COPAC and SUNCAT.[57] The Research Libraries UK (RLUK) union database was also retired shortly afterwards. On 31 July 2019 a third Jisc service was launched. 'Library Hub Compare' allowed analysis of overlap between collections, and provided scarcity checking functionality for the UK

Research Reserve (UKRR) initiative. By November 2020 the NBK contained 46,087,264 consolidated (matched and deduplicated) bibliographic records created from 123,277,192 original records contributed by 169 libraries, and attracted around 100,000 sessions per month on average, with each session usually involving multiple searches. Library Hub Compare had seen over 15,000 searches by more than 120 institutions, and Library Hub Cataloguing was seeing nearly 20,000 searches per month.[58]

Library Hub Cataloguing had been developed in partnership with OCLC since 2017, but by the end of 2020 the decision had been taken to re-launch it as a Jisc-hosted service, to align it more closely with Discover and Compare. This was expected to take place in February 2021.[59]

More detailed descriptions of the NBK can be found in articles by its project manager Bethan Ruddock.[60]

*Plan M*

On 22 May 2019 a meeting was held in Senate House, University of London, facilitated by Jisc, and entitled 'The Future of Metadata'. Following these discussions, task and finish groups for a project now being referred to as 'Plan M' were formed at Jisc headquarters on 27 September 2019. Further focus groups were then run in London and Manchester on 30 September and 21 October respectively. Attendees at these meetings included representatives from university libraries, national libraries, commercial and not-for-profit data suppliers, library stock suppliers, standards bodies, industry membership organizations, procurement consortia, and aggregators.[61]

The 'M' in Plan M stood (naturally) for metadata, and the objectives of Plan M were, as of December 2019, 'to implement a more efficient bibliographic metadata supply model for UK academic & specialist libraries using the Jisc NBK/Library Hub as core infrastructure'.[62] The inefficiencies of the existing supply model were described in the promotional material released at the time as both practical (misdirected effort, duplicated effort, and unexploited value) and strategic (fragmented infrastructure, uneconomic practices, and sectoral transformation inertia).[63]

In May 2020, despite the onset of the pandemic, consultants commissioned by Jisc began collecting and compiling data from various stakeholders with the aim of assessing the costs involved in metadata.[64] On 25 November 2020 the resulting report was summarized in a webinar,[65] and a more detailed slide deck was released on 1 December 2020.[66] The executive summary stated that:

- The development and delivery of an efficient bibliographic metadata supply model is essential for the 21st academic library.

- UK academic libraries spend considerable amounts of money on acquiring this metadata, but too frequently it is not fit for purpose.

- We can safely say that the landscape is messy, metadata flows from player to player, often being stripped of prior intellectual input.

- This situation requires leadership and engagement with the entire library data marketplace.

- Jisc has a proven track record in achieving significant marketplace change and it is well placed to lead it by playing an outward looking and international role.[67]

The stage was clearly set for Jisc to position the NBK as the infrastructure behind a solution to the troubles besetting the metadata ecosystem. The next phase would be to engage with metadata providers such as BDS and OCLC to see how such a proposal might be formed.

### Metadata in the Joint Consortia Framework Agreement

The issues with the UK metadata ecosystem had also been noted by the National Acquisitions Group (NAG). Taking advantage of the extension of the 'Joint Consortia Framework Agreement for the Supply of Books, E-books, Standing Orders and Related Materials'[68] until 31 July 2021, in spring 2019 the NAG executive committee approached cataloguers and metadata specialists in the higher education library community to gather their input and expertise. Their aim was to gather experiences of using 'shelf-ready' records from suppliers via the framework agreement, with an eye toward reviewing the agreement's terms related to shelf-ready records for print books, e-books, and e-textbooks. The existing framework agreement was clearly no longer fit for purpose, with metadata specifications being left for individual institutions to agree with suppliers, for example, and the limited recommended MARC record specification documentation being notably outdated.[69]

Emma Booth (University of Manchester) volunteered to create a report that could inform a revised framework agreement, and, having been co-opted as a member of the executive committee, she began the task of assessing the existing agreement and analysing the survey responses. In June 2020 her final report was published.[70] She gave a presentation on the report as part of the MDG20 online conference, and her write-up of this provides a summary of her findings and recommendations:

> … the NAG Quality of Shelf-Ready Metadata Survey has revealed that a consensus can be found regarding shelf-ready metadata quality standards. In fact, libraries from across the various purchasing consortia are in agreement that a consistent approach to shelf-ready record specifications would be to the benefit of all framework stakeholders, as it would assist with ensuring the reliability and interoperability of bibliographic metadata, and reduce the need for checking, correction, or enrichment tasks.[71]

The report recommended twelve essential and five desirable metadata elements for inclusion in shelf-ready records supplied via the framework, which would also need to be in MARC format and to RDA specifications. Realistic expectations were maintained, however, and it was suggested that a 'gold standard' for compliance, rather than exclusion from tender for non-compliance, would assist in encouraging adoption by suppliers. Plan M was

also mentioned in Booth's summary as an avenue for productive collaboration.[72]

It was intended that the report would lead to the publication of a 'metadata profiles' document in early 2021, which would form the basis of the metadata requirements for the joint consortia framework agreement tender in summer 2021.

### *BIC Metadata Capabilities Directory*

That the need to get a handle on an increasingly complex and dysfunctional ecosystem was recognized by suppliers as well as consumers of metadata is suggested by the work carried out on behalf of Book Industry Communication (BIC). BIC, as the 'book industry's supply chain organization', was set up and sponsored by the Publishers Association, the Booksellers Association, CILIP, and the British Library.[73]

The BIC Metadata Sub-Committee's 'Metadata Map project' was launched at the London Book Fair in 2018.[74] The purpose of the project was 'to collaboratively map the book industry's metadata supply chain from the point of metadata creation (with the publisher as the start point) through to the end recipient(s) of the metadata—in this instance consumers'.[75] By March 2019 a detailed survey had been completed by more than 20 organizations (primarily large publishers), and the specifications for a database and website, to allow interrogation of the collected data by BIC members, had been developed.[76]

This first project deliverable, created largely through the work of consultant Peter Mathews, was initially launched to a 'Pioneer Group' of invited member organizations, before being introduced more widely at a 'BIC Brunch' on 29 October 2020. It was intended to officially launch the 'Metadata Capabilities Directory' (MCD), as the database was now named, during 2021.

### **Discovery**

A significant development in discovery for many UK libraries was the introduction in 2017 of Primo VE, a new—and quite distinct—version of Ex Libris's Primo discovery tool.[77] Where Primo, a standalone system, interacted with the catalogue through regularly scheduled 'pipes', and so only reflected catalogue changes after a delay of up to 24 hours, Primo VE ran directly on the Alma platform, and updated (in most cases) nearly instantaneously—a very welcome change. This was by no means, however, a return to the days of the viewable OPAC. The underlying MARC records were no more visible to most users in VE than in Primo, and, if anything, the simplified Drools-based VE normalization process offered less flexibility and fidelity than the intimidating but comprehensive Primo equivalent.

For the first few years, upgrades to Primo VE were managed directly by Ex Libris, but from the end of 2020 institutions were given the opportunity to manage the upgrade themselves through the 'Go VE' self-switch process, which ran on the Alma production environment.[78]

The 'FRBRization' (i.e. clustering) of related titles (e.g. multiple editions of a textbook), and the deduplication of identical (or near-identical, e.g. print and e-book) records continued to be major selling points of the discovery layer, although the general reliance of the underpinning algorithms on fuzzy matching of text strings, rather than the formal matching of structured, professionally provided identifiers, meant that results were often inconsistent from a user's perspective. When, at times, ensuring compliance with theoretically-sound standards could be said to have harmed the user experience, and bending the rules to satisfy the whims of said algorithms arguably improved it, a worrying precedent for metadata work was being set.

Another selling point of the discovery layer, the external vendor-provided discovery indexes, continued to grow, with the Summon and Primo Central indexes being consolidated into one 'Central Discovery Index' in 2020, for example.[79] Whilst it cannot be denied that such databases provided valuable access to, in particular, article- and chapter-level information, the inability of metadata professionals at the point of use to influence the quality of the data (which, owing to automated conversion and the differing requirements of library and vendor metadata schema, was often questionable) was another potentially troubling development.

**Public libraries**

Throughout this period, BDS were supplying metadata to nearly the entire UK public library market, reaching 100% in early 2020. Public library cataloguers were increasingly a rarity. The process described below was followed by members of the Libraries Consortium (TLC, previously the London Libraries Consortium),[80] a large, London-focused consortium of authorities sharing an instance of the SirsiDynix Workflows LMS, and may be considered representative of public library practices more broadly.

Each of the authorities in the consortium contributed towards the annual subscription to BDS, and, in return, BDS MARC records were fed directly into the catalogue by File Transfer Protocol (FTP). Following the (largely Electronic Data Interchange, or EDI) ordering process, during which barcodes for physical books were imported by suppliers, and items went through a series of status changes, books only needed to be discharged or returned by receiving staff before they were ready to be borrowed. In most cases, no local cataloguing intervention was required, the records being high quality on import.

For situations where individual records did need to be found (when adding donations to stock, for example) a Z39.50 search of the BDS, BL, or LC catalogues would generally suffice. However, the BDS helpdesk was also able to create bespoke records to overlay the scratch records created by local staff when less widely-catalogued books, such as donated local history works, needed to be added to stock.

Most public libraries in Wales also shared a SirsiDynix LMS implementation, but the staff of Awen Libraries took a different approach to TLC when trying to address deficiencies in their cataloguing expertise, which were

making it difficult to deal with locally produced Local Studies items.[81] Library manager Harriet Hopkins and Amy Staniforth of CILIP Cymru Wales secured use of the Kathleen Cooks Fund (a benevolent fund for libraries and librarians in Wales)[82] to cover bespoke cataloguing training for Awen Libraries staff, to be provided by Anne Welsh of Beginning Cataloguing[83] in the summer of 2021.

## Ways of working

From the very beginning of 2016 CIG were experimenting with 'e-forums' for discussing various topics, but it was quickly found to be difficult to generate the active engagement needed to make use of the model worthwhile. Various other alternatives to face-to-face training and discussion had been considered, and limited trials of video conferencing had been undertaken (in part to make it less burdensome for non-London-based committee members to attend meetings), when the outbreak of the coronavirus pandemic in early 2020 suddenly made the topic much more pressing. Meetings and, as mentioned above, conferences had to move entirely online, and everyone soon became, if not necessarily entirely comfortable with, then at least used to working remotely. By the end of 2020 the situation showed no signs of changing. Karen Pierce gives one librarian's account of working during lockdown.[84]

For the most part, metadata librarians do not appear to have been furloughed during this period. Certainly the need to provide high-quality metadata was not eliminated by the pandemic—in fact, quite the opposite. Where print books with bad records could theoretically be found by browsing, users unable to access libraries themselves relied much more on the catalogue to find e-books, or print book records for 'click-and-collect' type services. As might be expected, the pandemic (or rather the accompanying lockdown) accelerated e-book purchasing, which had seemed to be levelling off after a ten-year increase.[85] And, as most cataloguers will know (and contrary to what external budget holders might assume), e-book cataloguing is no less demanding than print cataloguing, and arguably causes more problems if done incorrectly. As of late 2020, cataloguers were as essential as they had ever been.

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