
Playing the long game: reclassifying UEA library



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In early 2006 the University of East Anglia (UEA) library carried out a review of the sustainability of its existing acquisition and cataloguing processes, with a view to taking greater advantage of the shelf-ready services that were being offered by book suppliers. The easy part was moving to shelf-ready; the greater challenge was bringing the rest of the collection in line. This non-technical article outlines the methodology we developed to reclassify and standardise our whole collection within a comparatively short period of time and the business benefits that this has provided for our library service.

RATIONALE

Shelf-ready encompasses two aspects of book-acquisition: the physical processing of the item, such as binding and labelling, and the provision of the record that you see in the library catalogue. We realised that to get the most return from these value-added services we needed to outsource as much of this as possible, including the provision of catalogue records, subject headings and call numbers. The key benefits would be reducing the cost of in-house processing and getting the books to the shelves more quickly.

The major obstacle to achieving this was that UEA library, like other higher education libraries, had chosen to adapt its Library of Congress (LC) classification scheme over the years to accommodate specific local needs and preferences. Whilst these adaptations had been beneficial in the short term, for example for UK-specific materials, over time many of the schedules had become over-complicated, especially when their creators moved on to other jobs or retired and continuity was then lost.



It had reached the point where almost every book had to be classified by a senior librarian before being catalogued.

So we decided to revert to a more standard version of the LC scheme, which would involve substantial reclassification of the existing stock. Understandably there was concern from our cataloguing team and subject librarians, not least because of the many years of work they had invested in creating and maintaining the existing system. But, despite this, it is a tribute to their commitment that they used these concerns in a positive way to inform the approach we eventually took.

One clear example of this was a decision, early on, to retain our previous local filing suffix for the call numbers on our item records. We felt that the Library of Congress practice of use of Charles Cutter's scheme for coding authors, titles and geographic areas would be quite complex and time-consuming to learn and would be fairly meaningless to users. So we decided to keep our own simplified coding scheme, which we refer to as 'three-lettering'. At its simplest level, our scheme uses the first three letters of the author's surname or title as a suffix to the call number. Our users had always found this scheme helpful because it made the shelf order easier to follow. We did some extensive modelling of this proposal against sample records across the collection and agreed that, with a few modifications, it would be possible to continue to use this in conjunction with the standard LC scheme.

The first main stage of the project was the move to acquiring shelf-ready books. This was essential to prove the concept, to confirm the cost benefits and to identify any problems with using externally sourced records. After some discussion with our suppliers, we switched in August 2006 and there were immediate and tangible benefits in terms of reduced workloads and fewer delays in getting books to the shelves.

The obvious down-side was the temporary emergence of dual sequences. This happened because the call numbers from the new books would no longer always coincide with the call numbers assigned to our existing books. We realised this would affect browsing on the shelves but we thought it was worth testing the scenario and assessing the actual impact on the users.

As expected, our users did find the dual sequences inconvenient and we could see that the more books added under the standard LC scheme the more inconvenient the dual sequences would become. This confirmed our judgement that it really was worth taking the long view and investing in standardising the rest of the collection to fit with the newly acquired stock. So the following year, after extensive planning, the project team began the retrospective work of reclassifying the existing library stock to a more standard version of LC.

THE DATA PHASE

The first phase, the data phase, focused on how to update our existing bibliographic records. In theory, the minimum we needed was just updated call numbers and subject headings. The most difficult part of the process was to ensure that the new records would be an accurate match for the old records. So we went out to tender for a company to help us with this. Having limited experience of reclassification prior to this, we knew that we needed a company that had experience of similar-sized projects and from whom we could learn.

The US-based company Backstage Library Works was the successful supplier and we worked with them to agree database sources for the new records and an appropriate methodology for matching. Agreeing an algorithm for automated matching, and a process for matching records manually when automated matching would not be appropriate, took several months. We were aware that time invested up front would cut down the amount of work that needed to be done later.

Initially we had planned to import records from external library databases and overlay just the specific fields we needed (e.g. call numbers and subject headings) with the new data. However, we soon realised that, for the sake of consistency, it would be better to take completely new records for each book. This was because we knew that not every record would be matched precisely in the automated process and that, in the longer term,

trying to correct records that were partially made up of old records and partially of new would be difficult.

After several months of checking, we received a final file from Backstage that contained new records, including the call numbers and subject headings, for the vast majority of the library collection. The records were then loaded and indexed in a duplicate 'shadow' database of our library catalogue.

Because we had decided not to use the LC's Cutter numbers as a shelving suffix, we then used the standard global-editing functionality in our library management system to remove any shelving Cutters that were present in subfield b of each record's 050 (Library of Congress call number) field. An extensive period of further checking and local editing followed to deal with problem records and exceptions, many of which were identified in reports we received from Backstage as part of the service they offered. For example, we made a few manual edits to call numbers where the number supplied from the automated process was clearly not correct. We also took corrective action for sets, where we still needed to keep previous sets of books together rather than allowing the new scheme to separate them.

On the whole, though, we were very strict about keeping things standard, to avoid having exceptions to remember for the future. After all, we did not want to replace one adapted classification scheme for another because we would otherwise lose the benefits of standardisation.

Easter 2009 was a milestone as we replaced the existing records on our actual library catalogue with the newly edited records from our shadow database and re-indexed. The new records were now visible to our users but for the time being – until we had actually moved the books – the existing old call numbers were still displaying in the individual item records in our catalogue. This ensured that our users could still find the books on the shelves.

Following this, we also did some work on the new call numbers we had imported in order to prepare for replacing the LC Cutters with our own three-lettering on the item records (which some libraries call 'holdings records'). Just to be clear, in Ex Libris's Aleph library management system, there is a bibliographic record for each title which includes a classmark. Attached to each bibliographic record are one or more separate

item records. Our practice at UEA is not to display the classmark on each bibliographic record on the library catalogue; instead we display call numbers on the item records themselves which give the precise shelf location for each book.

So we worked with Ex Libris, supplier of our library management system, to develop a program to copy the classmark (minus the shelving Cutter) from the 050 field of each bibliographic record into a non-public spare field of the attached item record(s). The final part of the program then appended UEA's own three-lettering suffix, taken from the existing call number. Having run the special program, we then set about making corrections to some of the three-lettering suffixes. These new call numbers, with their new filing suffixes, were still hidden from users in the non-public spare field until the book re-labelling and moves phase was underway. Once complete, the data from the non-public spare field, including all the work done by UEA on adding the filing suffixes, was sent back to Backstage Library Works to create the replacement spine labels for the books.

Before moving on to describe the relabelling and book moves phase, it is worth mentioning the other main aspect of the data phase, which concerned authority records. An authority record is needed for each authorised form of a name or subject heading. They are used to make sure that names and subjects are entered in the library catalogue in a consistent manner so that similar records, for example books about Dickens, are found together when browsing. Authorities are particularly important where cross-references are needed, for example 'Myanmar' vs. 'Burma' or 'Roumania' vs. 'Rumania' vs. 'Romania'.

As with the call numbers, UEA had adapted its name and subject headings and their related authority records largely to follow British Library practice, but also to suit local practices. As part of the reclassification project we needed to ensure that the old headings were matched appropriately and any exceptions dealt with consistently. As part of the services we purchased, the new records supplied by Backstage went through authority control and bibliographic enhancement but many records still needed manual edits. These were listed in exceptions reports that identified records where appropriate headings had not been provided as part of the matching process and where the old headings had therefore been retained.

The approach we took was to assess how many of the issues that arose from the authority control process would need to be resolved immediately (because they might otherwise cause confusion to users) and how many might be fixed manually over a longer time period. Although these edits were less critical than correcting call numbers, they were still important for maintaining the quality and usefulness of the catalogue. In terms of the existing stock, there will be a significant number of headings to clean up manually over the next few years. Going forward, now that we have adopted the LC authority file in place of our local authority file, any newly acquired records will be kept in line as part of regular quarterly updates.

THE RELABELLING AND BOOK MOVES PHASE

Of the 850,000 items in the library, we ended up with approximately 660,000 items to relabel and approximately 750,000 items to move. The remaining items, such as items in sets, either retained their existing labels and/or did not need to move from their existing locations.

The greatest challenge for this phase was to determine the most cost-effective methodology. As part of our initial planning, Backstage Library Works had provided us with a pivot table, which indicated which parts of the collection would involve the most movement from one location to another. This enabled us to assess the likely impact of the book moves. For example, we realised we would need to create temporary swing space for the parts of the collection where we anticipated large numbers of books moving out of one sequence and into another sequence, perhaps across the same floor or even on different floors. In other sections, it would be more a case of reshuffling the books within existing sequences, which would be much more straightforward. This preparatory work migrated into a full work plan that showed the estimated start and finish points for each new sequence in the library and this was updated on a daily basis throughout the project.

Although we had originally intended to recruit our own temporary staff for the book moves phase, we realised that this might be difficult to manage and would prevent us from keeping up with our other day-to-day work in the library. We decided therefore to go to tender again to find a company that was experienced in book moves but also in managing temporary staff. We knew the work would involve fairly repetitive tasks over a sustained period of time and that staff retention

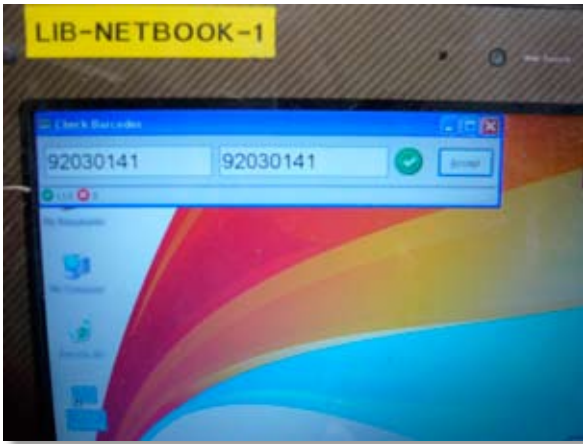
and motivation would require more input than we could provide in-house.

The tender also specified that we expected to pay the supplier by numbers of books relabelled and numbers of books moved, rather than by the time taken. This was essential to ensure that we would keep within budget and it would also give the supplier an incentive to add as much value as possible to the process. There was considerable interest from a number of removals and logistics companies and we eventually appointed Harrow Green as the closest match on price and quality.

We assigned a manager from our own library staff to liaise with Harrow Green's project manager and also used other library staff to mentor its staff to ensure they understood the classification scheme and the importance of keeping noise to a minimum. This approach ensured good working relationships between staff for the duration. Harrow Green employed a team of up to 15 people each day and they were distinctive around the library in smart polo shirts which the company provided.

UEA's project team had created an outline methodology for the book relabelling and moving stage that involved relabelling the books during the day and reshelving them at night, so as to keep the impact on our users to a minimum. In the event, we worked further with Harrow Green on an enhanced methodology that combined both stages whilst still enabling us to keep the collections accessible for the users. We had thought we would need to have some parts of the collection closed off for short periods of time with a 'fetch and carry' service provided for users. In the event, we simply kept the stacks open and used Harrow Green supervisors to help users if they were unable to find items. Since the supervisors knew exactly which sections were being moved when, we managed to keep disruption for users to a minimum.

In July 2009 sheets of labels, in original call-number order, were provided by Backstage Library Works. Each label came in two parts. The first part was the replacement spine label, showing the new call number. The second part of the label had core metadata about each item, including its original call number, part of its title, its barcode number and, most importantly, a 2D version of its barcode that was used for the verification part of the process described below. (We used 2D barcodes because they take up much less space than 1D barcodes.)



Each member of staff carrying out the relabelling was provided with a portable book trolley, attached to which was a netbook equipped with a 1D/2D barcode scanner. In liaison with our internal IT developers, UEA library had created a program that matched the 2D barcode on each new label with the 1D barcode in the book to verify that it was the correct item. If the verification of the two barcodes was successful (i.e. they matched) this was clearly displayed on the screen of the netbook. This helped to ensure that staff peeled off the correct spine label and attached this to the spine of the correct book, overlaying the existing call-number label.

Next, the staff affixed the second part of the label, the metadata part, to the inside front cover of each book. This was for quality-control sampling, so that supervisors could then check again that the 2D barcode on the metadata label did in fact match the original 1D barcode in the book. In future, this part of the label would also provide a quick visual check of each book's previous call number, as well as confirming that the book had in fact been through the reclassification process.

When successfully verified by the program, the barcode for each item was stored in a text file on each individual netbook to confirm that the book had been relabelled. Once each section of relabelling had been completed, normally at three points during each working day, the barcode numbers completed in that section were uploaded from the text file to the library management system.



Library staff then ran another special program against the items identified in each text file to replace the original call numbers in the public field of the items' records with the new replacement call numbers from the non-public field. This ensured that the final changes to the call numbers on the catalogue took place very close to the actual book moves, so that the items matched with their new shelf locations. The new call numbers were the ones that we had adapted to include our three-lettering Cutter and that had previously been hidden in the spare field box.

If during the relabelling the two barcodes did not match, a clear warning would be displayed on the screen. If a further attempt was unsuccessful, the book would be placed on an exceptions trolley for attention by library cataloguing staff. Initially we had expected the number of exceptions to be up to 5 per cent of the whole collection, but in the event the fallout was lower than this and most exceptions were manually corrected straightaway, without holding up the process.

Once each book had been relabelled, it was replaced on the shelf on its side. Another team member would then collect the newly relabelled books and sort them onto trolleys to be moved to their new locations, depending on the extent of the movement required. The books would then be reshelfed almost straightaway and following the work plan that indicated where each new sequence would start and finish.

Some books had to be stored in 'temporary shelving' areas and could not be moved to their final location until space had been made available elsewhere. This meant relocating some of our library study spaces for a short time. This was

essential because the library as a whole is already close to being at full capacity. These temporary shelving sections kept the books accessible and avoided too much additional shuffling and resorting of stock, which would have been unnecessarily expensive in terms of additional staff time. Where books were on temporary shelving, the library catalogue was updated to make it clear to users which items were located in these areas. These books also had a temporary red sticker on their spine to prevent them from being reshelved in the wrong place.



Another challenge was that, whilst the majority of books to be relabelled were on shelves in open-access areas of the library, we also needed a plan to relabel books that were out on loan or due to be returned during the process. The methodology we used was to 'trap' most of these items as they were awaiting reshelving. They were identified by their old labels or by being obviously out of sequence with their neighbouring books. If in doubt, a quick check was to look for the additional metadata label inside the front cover. Unused labels from the main process were kept in the old call-number order and it was therefore relatively straightforward to match these up with the returned books.

It had been estimated that the process of relabelling and reshelving the stock on all library floors would take about 12 months to complete and this proved to be accurate.

CLEAN-UP WORK

After the bulk of the relabelling and moving of books is completed, there will be a number of ongoing tasks from August 2010 onwards. This stage will primarily focus on fixing out-of-date and non-standard LC subject and other headings that were not picked up as part of the reclassification and authority control processes. We also need to clean up our multi-volume works and analytic records. We hope to address the priority records in 2010/11 academic year, although the final clean-up of name and subject headings may take considerably longer.

HINTS AND TIPS

The key to the success of such a large-scale project is to combine experience from others with your local expertise. Every collection and set of users is unique, so it is important have the courage of your convictions when you believe you can add value over and above what you have seen elsewhere.

The methodology we developed, though based on experience at other institutions, was enhanced greatly by the time spent planning locally and making full use of the expertise and commitment of our staff rather than sticking rigidly to someone else's methodology. With a project of this nature, it is clear that one size does not fit all.

We also made sure that when we did not have the expertise we needed in-house we identified external suppliers that would not just fill in the gaps but would share the vision and the outcome we were trying to achieve. All three parties – UEA, Backstage Library Works and Harrow Green – rose to this challenge and delivered within budget.

Apart from the methodology employed, the other essential factor was communication, ensuring that we kept users fully informed for the duration of the project. With a task this size, affecting approximately 750,000 items, we knew that some errors and confusion would occur. The communication between the Harrow Green project manager and UEA's project team was crucial in ensuring that problems were kept to a minimum. Meetings were held each morning to review the previous day and to preview the day ahead.

Whilst we had a robust quality-control procedure in place, we also felt it necessary to put in place a quick-response mechanism for any issues raised by our users. We monitored the help desk statistics on a fortnightly basis to note any pinch points.

Although we had some peaks in enquires in the early stages of the book-moving process, it was reassuring to see the number of queries declining as we took the feedback on board and amended signage and processes in response to users' queries and comments.

We provided regular updates to the project web site, which included details of the work completed so far and a daily update of 'sequences at risk today'. We also had detailed signage on each floor explaining the genesis and logistics of the project and giving advice on where to find resources. We updated the library's floor plans regularly to ensure that they were a true reflection of the collection's location on that day and we also put up posters emphasising the importance of checking the library catalogue for location and collection details.

CONCLUSION

In some respects, the success of a reclassification project is perhaps best measured by its lack of impact on the day-to-day business of the library. That said, there were some more tangible benefits. For example, the more obscure sequences of our previous classification scheme had led to parts of the stock being hidden and under-utilised, so the move to a more standard version of LC has helped to open up those sections of stock. We have also gained much more complete records for many of our items. The whole process has also served as a stock check, helping us to identify and replace missing books, as well as allowing for cleaning and tidying of the shelves at the same time. It would also be true to say that we have lost some of the local and UK-specific granularity we had benefited from when using our in-house schemes. But the overall benefits have far outweighed the disadvantages.

The most significant benefits of reclassification remain largely invisible to the end-user: that is, the long-term sustainability and affordability of using a more standard version of this scheme and the consequent reduction in in-house processing and intervention. For all the expense of reclassification, we know that in the long term these benefits will far outweigh what we would have spent on continuing with our manual processes.