Preserving print collections: the New Zealand university libraries and collaborative storage

Context
New Zealand is a small, remote country in the Pacific with an area of 268,000 square kilometres and a population of 4.5m.

Until the middle of last century, there were four colleges in separate locations under the umbrella of the University of New Zealand, the oldest of them founded in 1869. In the 1960s, to accommodate the post World War II demographic bulge, there was a period of expansion. The colleges became autonomous universities, others were established and there was a period of expansion with a building programme that has left most of them with examples of the brutalist style of architecture. Another marked growth spurt occurred in the 1990s when a government objective was to raise the level of education; this encouraged a greater percentage of the population into universities. As a consequence, there was more funding available, some of it came to the libraries but it was generally for collections and not for buildings.

There are now eight universities, five in the North Island and three in the South, the newest having developed from an institute of technology in 2000. All the universities offer programmes from undergraduate to doctoral level and all have some specialist disciplines. Their student numbers range from 32,600 to 2,600 EFTS\(^1\).

The university librarians work together as the Council of University Librarians (CONZUL), which is a sub-committee of Universities New Zealand (UNZ). UNZ comprises the vice chancellors or chief executives of the universities.

The country has a small but active publishing industry that supplies the local and international markets but most academic library materials are imported, predominantly from North America, Europe and United Kingdom.

The New Zealand library community as a whole has a history of strong collaboration. There is a national union catalogue that was initiated in 1941 and automated in 1983, which has facilitated the interlibrary loan programme. Almost all the country’s libraries belong to the interlibrary loan scheme and there is a tradition of sharing resources.

The New Zealand university libraries are facing the common challenge of print collections that now exceed the available accommodation. The libraries want to manage their collections better and provide space for new services. With little prospect in the current economic environment of significant new library building space on site, options for the libraries include reducing their collections or finding off-site storage solutions.

It is against this background – a geographically distinct country with a small population and a tradition of cooperation among libraries – that the CONZUL storage project took shape.

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\(^1\) Equivalent Full Time Students
History of the project
At its meeting in mid-2000, the Standing Committee on Libraries, which was the precursor of CONZUL, established a working group to undertake a feasibility study on the concept of a national store. At the time, the Standing Committee included the National Library of New Zealand which also needed storage for its print collections.

The national store was envisaged to be a remote warehouse type of storage facility for low-use print material. It was to be a collective resource to house “low-use copies of library books and journals where retention within New Zealand is still judged to be worthwhile”. The outcomes of the feasibility study were to be a comparison of potential solutions and a business case for the preferred approach.

With membership representing the National Library and the universities, the working group produced a paper titled National Store Feasibility Study: a preliminary paper in the following year. It had reached the view that the collections in a national store should be low-use printed books and journals, which would be held in single copies for shared use to maximise efficiency. Heritage materials were expected to be excluded on the grounds that libraries would wish to retain such collections locally.

The paper contained a rationale for a national store and described the nature of the materials to be held, how the collection would be accessed, the nature of the building necessary to house the collection, shelving arrangements, ingest processes, governance and funding, key stakeholders, critical success factors and even suggested options for location. The working group asked the Standing Committee to identify its preferences and to provide information on current storage costs so that a business case could be developed. Despite progressing to this stage, the project then stalled for three years.

In 2004, the working group was reconstituted and soon became persuaded that the Harvard model of high density stacks was the most efficient way to manage space in a storage facility. The group reiterated the view that one copy of low-use material would suffice for New Zealand, that the focus should be on print and that the facility should be in a university city, preferably one where land was cheaper or might be made available by one of the members. The need to retain print journals where electronic versions were available was queried, but the idea of relinquishing them was seen as too radical.

A consultant was engaged to design a modelling tool that would calculate the size and optimal location of the required facility, the most efficient arrangement of the stock and the costs. At the end of 2004, most members of CONZUL expressed commitment to continuing with the project; the majority wished to participate, while two advised that they did not have the same storage needs but expressed their support.

Five of New Zealand’s large public libraries were also interested in participating in a national storage facility and a representative joined the working group, which then turned its attention to developing a business case for funding. It reviewed the matters of location for a facility, whether to lease or own a building, membership of an associated consortium, governance and management, ownership of the collection and access to it, and whether single or multiple copies of print materials would be held.
The working group also considered how things might work, such as accessioning and processing, sorting stock by size, stowing volumes in acid-free trays and altering bibliographic records on Te Puna\(^2\), the national union catalogue, and it estimated staffing and operational costs. The modelling tool allowed for variables such as aisle width, shelf dimensions and the number of levels within the building. The concept of a shared store and how it might operate was well developed.

Then late in 2005, the working group became concerned about the validity of the data on collection size and the related needs for space. Two things prompted the concern: the identification of a further 10,000 linear metres of stock that had not previously been notified and the reconsideration by one library of the quantity that it intended to deposit. When the modelling tool was applied to the data that had been provided, it appeared that a New Zealand store would need to be twice the size of the CARM Centre\(^3\) in Australia and that there was stock to fill it immediately. This scenario was clearly unrealistic and the conclusion was that the data about the collections that were intended for storage was not good enough.

While the working group was considering how to address this problem, the Tertiary Education Commission (TEC), the government agency responsible for funding for tertiary education, invited applications for support for collaborative projects. The eight universities submitted one for a *National Research Store*, with a covering letter of support from the National Library. Funding was requested “to secure a site and construct or refurbish a building to accommodate a national research store ... the project aims to preserve the research collections by rationalising storage accommodation and providing a proper environment for their protection. They will then be secured for the use of all New Zealand researchers.” The application was declined and, although CONZUL still hoped to achieve a national shared store, the working group again went into abeyance.

Four years later, UNZ suggested that CONZUL submit a fresh application and in 2009 funding was successfully secured for a project named *Collaborative Storage of Library Print Collections*. Since the funding was provided to the university libraries (ie it was for use within the tertiary sector), no other parties were involved. The vision of a national store with wider membership was not abandoned, since CONZUL intended that a solution should be scaleable.

**Project development**

The project funded by TEC was to investigate collaborative storage options. It had the following overall objectives:

- To rationalise the retention of low-use print research collections
- To release library building space
- To moderate the costs of further library buildings
- To preserve print research collections
- To provide effective access to stored research collections
- To leverage off developments in the UK, USA and Australia

\(^2\) Te Puna is hosted by National Library of New Zealand

\(^3\) CAVAL Ltd, Bundoora, Victoria, Australia
The University of Auckland Library was designated the lead institution for the project and the author was seconded as its consultant, to review international initiatives and to recommend options for the New Zealand situation.

During the first stage, the university libraries undertook various collection projects to add or enhance bibliographic records relating to their collections on the national union catalogue. The aim was to avoid the problem of suspect data, which had been a stumbling block earlier.

CONZUL again confirmed that its preference was to share the storage of a jointly-owned collection. While the books and journals would be shared, the storage facility might be owned or leased by one of the university libraries on behalf of the group. The host library would operate the store and costs would be shared. At this stage, the storage solution was still imagined to be a purpose-built or adapted building with appropriate floor loadings and a controlled environment for the preservation of print materials.

Collections were reassessed and the libraries estimated that they needed to store approximately 19 kilometres of serials and 17 kilometres of books over the next 10 years. The collections would only include single shared copies. Reports from the national union catalogue showed that, for both formats, around 40% of the titles were duplicated. Rationalising the collections would reduce storage requirements overall.

The University of Auckland, driven by the pending expiry of the lease on its library warehouse, commissioned a high level review of the storage issues and options in relation to its own requirements. The review was carried out by building consultants, Wareham Cameron, and shared with the other universities.

Ten options were presented were all able to be scaled for the group. They included:

i. a new purpose-built university-owned facility on university land;
ii. a new purpose-built facility constructed on an off-campus industrial site;
iii. the conversion of an existing building, off-campus on an industrial site, and either leased or owned;
iv. an outsourced solution, placing material with a commercial document management company.

Other options were variations that depended on whether the building would have environmental controls or not and whether it would be developed by the universities or by a property developer.

Each option was evaluated for financial impact – cost in nominal terms p.a., capital required in the first year, NPV cost – overall qualitative impact, risk rating for the collection and financial risk.

Commercial storage had always been seen as a benchmark against which other options would be compared. When the financial analysis was done, the most cost-effective storage option was shown to be outsourcing to a commercial supplier in facilities without environmental controls.
Different solutions for different collections
By this time, 2011, collaborative storage had been on and off CONZUL’s agenda for a decade. Collection growth meant that a storage solution was needed urgently. There had been no such distinction earlier but now CONZUL was prepared to consider separate options for books and for serials.

Although books are increasingly published in electronic format and there are mass digitisation projects to migrate printed books held in libraries, there remains an expectation that many titles may never be digitised. Books seem more likely than serials to retain their value as artefacts, to have enduring research potential and to require storage under conditions that will preserve them for as long as they are needed, perhaps indefinitely.

Serials are significantly different in that the transition to digital format is further advanced. The electronic journal has very successful and is well established, the major titles are available electronically, many no longer have print versions and reliable archiving arrangements are becoming more common.

The New Zealand university libraries had been quick to prefer e-journals in the 1990s and there are now relatively few current print subscriptions. Despite this, CONZUL considered that it would be prudent to retain a single copy of low-use print serials, even where there is a secure electronic equivalent, but does not anticipate needing to store them in the longer term.

On that basis, it was considered that the serials did not justify environmentally controlled accommodation and that outsourcing to a commercial supplier was a good solution. It would be convenient since the main providers had storage facilities in all the university cities and they offered good quality accommodation, better than some of the libraries were able to provide. Apart from the benefit of proximity, a distributed solution would spread the risk of loss. It would also allow the libraries to move forward relatively promptly, since no major building project would be involved, and to rationalise the storage of serials, which would relieve the urgent storage issue faced by a number of them.

CONZUL advised UNZ that the storage of serials, particularly those that are also available in electronic format, was a more tractable problem than the storage of books. Commercial storage in the medium term would be satisfactory for serials. This was a marked shift from the earlier vision of a purpose-built and university-owned facility but it was accepted as a good and pragmatic solution.

With UNZ’s approval, proposals were invited from commercial providers. In due course a contract that provides for the storage of low-use serials for a period of ten years in the first instance was negotiated with Crown Records Management.

Implementation
There were some administrative issues that had to be resolved. CONZUL was not set up as a body that was authorised to be the contract partner so UNZ represents the university libraries in that role.
There was the question of ownership of the collection, which will comprise single copies contributed by any of the members and held for their common use. For the purposes of the contract, UNZ has also taken on ownership of the collection, with the universities agreeing to cede to them anything that is lodged in the CONZUL Store.

The collection has been depreciated so it is no longer recorded as an asset.

Costs of storage are being shared among the members on the basis of a formula that UNZ uses for other joint initiatives, whereby one third of the cost is shared equally and the remaining two thirds are shared in proportion to the funding that each university receives from TEC. Costs of retrieval from the store are borne by the requesting library.

It was decided to name the distributed and shared collection the CONZUL Store.

Rationalising the collections
One of the project’s aims is rationalise the libraries’ collections and keep a single copy of low-use print serials. There is access to extensive collections of e-journals and this was seen as sufficient. Once there is a shared copy in the store, other holding libraries may choose to withdraw their duplicated copies.

The parameters for the shared collection are flexible. The serials should have enduring research value, be clean and in good condition, and there is a preference for bound volumes over loose issues. Substantial runs are preferred to fragments, which were suggested to be fewer than five volumes, and contribution to the shared store is voluntary. Once lodged in the store, ownership of the material is ceded to UNZ and there can be no permanent retrieval, since other libraries may have disposed of their holdings against those in the store.

The libraries had previous experience in sharing a collection of single copies through an agreement with National Library that relates to printed bibliographic indexes. Where there are now online alternatives, each library has agreed to retain certain titles and will make them available to others as needed. To reach this point, lists of titles and holdings were circulated and there was negotiation over retention. The library with the most extensive holding was generally designated to retain it and others withdrew their duplicate copies. The process of achieving this had been protracted, largely because the confirmation of accurate holdings was a problem. Fewer than 200 indexes had been involved in that case, so it was clear that the same process was not feasible for a project involving around 68,500 titles in total, some 25,000 of which are duplicated.

After considering various options, it was decided to adopt a process of consecutive deposit so that only one library would be contributing its material at any time. As it did so, the depositing library would provide the others with a list of the titles and volumes that had been sent into the store. This would allow comparison of the lodged material with the set that the other libraries intended to contribute in their turn. They would make adjustments, noting which volumes they could withdraw and which they should lodge to complement the collection. The lists of titles and holdings that had been contributed to CONZUL Store would be uploaded to the UNZ extranet, which has become the site for the members to share information.
The University of Auckland was the first library to deposit material. It found that list preparation was an important (and laborious) component of the process. To select material for storage, the Library in the first instance took a report from its ILS that listed serials with both print and electronic holdings in a spreadsheet. Next, it identified ‘secure providers’; these are publishers or providers with whom the library has negotiated perpetual access to content. The titles were checked to identify the ones to which the library had permanent electronic access and the duplicated print volumes were noted. This category of serial – the print that is digitally duplicated on a secure platform - is considered by all the libraries to be a prime candidate for the CONZUL Store. It will be supplemented by other low-use print serials that no longer justify a place on the open shelves.

Barcodes were essential as they are used to track items in the store where they are held in cartons on racks. Item barcodes were extracted from the holdings statements in the bibliographic records and added to the spreadsheets. Packing staff selected the material from the shelves and entered the carton barcode alongside its contents, noting any irregularities, such as missing or incomplete volumes, and adding volumes like supplements that might have been omitted from the list. When the shipment had been collected, the cataloguer refined the list and removed or resolved anything that had been noted as irregular, so that a clean spreadsheet linking volume and carton barcodes was uploaded to the storage provider’s database.

Further work was required to make the list suitable for circulation to the other libraries, since an itemised list is awkward to read. The item barcodes were therefore removed from the spreadsheet and the holdings summarised before the list was uploaded to the UNZ site where it can be accessed by others.

Access to the stored collection
The depositing library will continue to record the stored material on its catalogue, as will other libraries that have held the title. It will also continue to be listed on the national union catalogue and available for interlibrary loan.

Articles from the stored serials will be scanned and emailed to requesters or copied and posted, although an e-journal will be the first resort. Researchers who need to refer to several volumes may use reading rooms at the storage facilities.

Summary
CONZUL is a consortium of the eight New Zealand university librarians who have collaborated to find a solution to a common storage problem.

They have chosen to store low-use print serials with a commercial provider for ten years in the first instance and to review the need to retain them after that period.

The collection will be distributed over several locations, reducing the risk of loss. The storage facilities are in the university cities and each library will deposit to a nearby facility.

Only a single copy will be stored, this being considered sufficient for the national research communities.
The copy will be shared by the members and the libraries’ collections may be rationalised by the withdrawal of duplicates.

The initiative has the support of UNZ who have taken on the roles of owner of the collection and partner in the contract on behalf of CONZUL.

The low-use material is preserved for the medium term at least and is accessible to researchers through the universities libraries or via interlibrary loan.

There are two records of the titles in CONZUL Store, one on the UNZ extranet that records what has been deposited and summarises the holdings, and the other on the storage provider’s database that itemises the volumes to facilitate retrievals.

The CONZUL Store was on the agenda for more than a decade before it was realised and the project, at the time of writing, is in the early stages of implementation. All the university libraries are participating, although not all of them have the same pressing storage needs and there is satisfaction in reaching this stage.

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