

Library Management

Consortia from Past to Future

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SCHOLARONE™ Manuscripts The great libraries of antiquity were more noted for being rivals than for being fellows. We know that the library at Alexandrea in Egypt exchanged copies with libraries in Athens but we do not have any evidence of any sharing between the library at Alexandra and its rival in Pergamum, on the west coast of what is now Turkey (Aman, 1989, p. 84). There was intense competition between them in collecting manuscripts. Although the shortage of papyrus may have other causes, Egypt banned the sale of papyrus to Pergamum in the second century CE, possibly as an attempt to stifle its rival. Pergamum responded by exploiting parchment, so perhaps a lack of cooperation can stimulate new developments, (Casson, 2001, p. 52; Martin, 1994, 51; Roberts and Skeat 1983, p. 6). The 120-volume catalogue of the Alexandra library the Pinakes (Tables) created by its librarian, Callimachus (310–240 BCE), may not have been shared with Pergamum but the library there developed a catalogue that was similar enough for ancient writers to search both catalogues for the works they wanted to consult (Witty, 1958, p. 133 note 3, p. 135 note 21).

While medieval libraries were known for chaining their books they did share manuscripts for reading and copying, though not always without rancour (Kelly, 1980, p. 73). Seventeenth-century Europe saw further developments in librarianship and library cooperation, some of it initiated by philosophers and writers who were also librarians. The philosopher and writer Lessing was Librarian at the Herzog August Bibliothek in Wolfenbüttel from 1770 to 1781. While there, Lessing began an exchange programme with other libraries and proposed a consortial acquisition scheme with the University of Göttingen. Goethe, who, among his other government duties in Weimar, oversaw the libraries of Weimar and Jena, proposed a union catalogue and shared collection responsibilities (Wormann, 1968, p. 340-341).

The great developments in library cooperation came about after the American Library Association was formed in 1876. The first professional organisation for librarians, it made cooperation central from the beginning. Melvil Dewey saw that individual libraries could not

bring about co-operative cataloguing or 'any other plan' without the communication and organisation of the ALA and its *Library Journal* (*Library Journal*, 1877, p. 170). The overriding purpose of the ALA was sharing information and resources:

It should be understood that such organization is not simply to create *esprit de corps* and to enjoy social intercourse with one another, but is a great labor-saving necessity; an economizer of time and money; a *desideratum* alike for library and librarian. Without such organization experience has sufficiently proved that Poole's Index will remain uncompleted; that each cataloguer will work alone and unaided on his copy of each book without utilizing to any proper extent the like labors of his fellows ... Individuals have neither authority nor ability to carry forward the needed work. It must be done by the cooperation of those most interested – the libraries' (*Library Journal*, 1877, 178).

The March 1877 issue of the first volume of *The American Library Journal* (later just the *Library Journal*) recognised that 'Of the standing committees, that on Co-operation will probably prove the most important organ of the Association, as most of the practical work will fall to its share or that of its sub-committees. The Poole's Index, Size, and Co-operative Cataloging matters ... are only a portion of the work to be done' (*Library Journal*, 1877, p. 251-2). One of the first topics the ALA addressed was the joint acquisition of library supplies. Catalogue cards, card cabinets, and other items were new technologies in the 1870s and had to be custom made. Standardising would lower the costs (Krajewski and Krapp, 2011). The Co-operation Committee set up a supply house to resell library supplies that were standardised and purchased in bulk by the ALA for resale (*Library Journal* 1877, p. 246-247).

Much of *Library Journal* in the ALA's first year carried reports on the shared development of standards in terminology, in book sizes, in the dimensions and layout of borrower cards and acquisition ledgers and in standardising cataloguing rules, much the sort of work that libraries have continued in developing today's FRBR and RDA, working not in co-ops or consortia as such but in committee work and panel meetings to bring libraries together on national and international levels.

The move toward modern consortia intensified as the century closed. In a modest letter in the 1876 issue of *Library Journal*, Samuel Swett Green, Librarian of the Worcester Free Public

Library, proposed the concept of interlibrary loan, believing that 'it would add greatly to the usefulness of our reference libraries if an agreement should be made to lend books to each other for short periods of time' (Green 1876). Interlibrary loans were initiated informally at the University of California, Berkeley, in 1886 by its Librarian, Joseph C. Rowell, and officially sanctioned by the University in 1894 (*Joseph Cummings Rowell 1939*, p. 34-35). Rowel had started an exchange programme with other libraries a decade earlier (Peterson, 1982). In 1907 the Library of Congress began lending its books to other libraries and by 1909 had lent more than a thousand books to over 100 libraries. By 1919, the ALA had adopted its first Interlibrary Loan Code (Frederiksen *et al.*, 2012). Today there are over seven million requests annually shared among the 10,000 users of OCLC's WorldShare system (WorldShare, 2017).

The 1920s and 1930s saw further development in library cooperation with the founding of the International Federation of Library Associations (IFLA) in 1927. The worldwide depression in the 1930s made it imperative for libraries to share resources. Cooperative agreements were formed on a regional basis among libraries in the New York state in 1931, among libraries in the South in 1936, and, in 1931, the Claremont Colleges (Claremont Graduate School, Pomona College and Scripps College) joined their technical services departments together (Weber, 1976, p. 208). The outbreak of the Second World War required joint action to help research libraries acquire foreign library material. Initiated by Harvard, the Farmington Plan (1944) made joint purchases of mostly European materials. Intended to help dispose of agricultural surpluses in the United States, Public Law 480 (1961), also called the 'Food for Peace' programme, supported libraries by acquiring books from India and Africa in exchange for supplying those countries with American food and wheat that could be paid for with local currency or with books for distribution to American libraries.

Shared storage has an early history, with a 1901 proposal by Charles William Eliot, Harvard's long serving president (1869-1909), culminating in the opening in 1942 of the New England Deposit Library (Weber, 1976). The trend continued: the Research Collections Access and Preservation (ReCAP) facility shared by Princeton, Columbia, and the New York Public Library, built in 2000, now holds 15 million volumes and has a current capacity for 17 million, or about a quarter of their combined collections. There are thirteen other shared facilities, most of them dating from the 1990s (Payne 2007).

Consortia, of course, are not unique to the West. Libraries in China were either imperial or private, with no public libraries until something approximating one, the Jieshu Yuan (lending library) of Zhou Yongnian (1730-1791) opened in the 18th century. Modern public libraries did not appear until early in the twentieth century. (Wilkinson, 2013, p. 932). China's development in the 1980s put an emphasis on rebuilding education and impetus was given to expanding libraries and library cooperation. Consortia in China have formed based on region, type, or administrative division or some combination of the three. The Beijing Academic Library consortium with academic members is one example, as is one in Tianjin. The Shenzhen Acquisitions and Cataloguing Centre (1993) serves the public libraries in that city. The Shanghai Information Resources Network, established in 1994, has members from each library sector. It shares cataloguing, interlibrary loans, and provides patrons with a library card for access to all of the members. Perhaps the best-known cooperative is CALIS, the China Academic Library and Information System. Founded in 1998 and funded by the central government it hosts a union catalogue for information and inter-lending. Other academic consortia are focused on social sciences and humanities, medicine, or science and technology (Dong and Zou, 2009). In Taiwan the Consortium on Core Electronic Resources in Taiwan (CONCERT), founded in 1998, (Ching et al., 2003, p. 306), provides joint purchasing leverage for libraries and is currently involved in a boycott of Elsevier (Huang, 2016).

In Hong Kong, the Joint University Librarians Advisory Committee (JULAC) has been an outstanding example of cooperation among the eight government-funded universities and thirteen associates. Starting in 1967 as a committee to advise the heads of the universities, the last decade has been especially productive in part because of technology and in part because of closer cooperation encouraged by the University Grants Committee, the primary funding source for the universities. Among other activities JULAC sponsors a union catalogue, patron-initiated inter-lending between members, database licensing, monograph acquisitions, and common access to member libraries. A shared storage facility has been planned: until it is constructed the libraries have developed a virtual storage solution by agreeing to hold last copies of print journals (Wong, 2016).

Today there are 200 library consortia worldwide who are members of the International Coalition of Library Consortia (ICOLC). The oldest is TRLN, the Triangle Research Libraries Network in North Carolina (1933). Many, like CAVAL in Australia (1978) were started in the 1970s. Some, like LYRASIS (2009), are new and focus on digital projects, others, such as the Legal Information Preservation Alliance are specialist.

At the end of the 19th century, Belgians Henri Lafontaine and Paul Otlet, creators of the Universal Decimal Classification, envisioned a shared world-wide catalogue of all human knowledge. By 1926 their index held 13 million cards, growing to almost 16 million author and subject cards by 1934 when the project collapsed (Wright 2014; Rayward 1994). Their vision failed but a later and import project resulted in a work whose title shows the nature of cooperation behind it: The National Union Catalog Pre-1956 Imprints: A Cumulative Author List Representing Library of Congress Printed Cards and Titles Reported by Other American Libraries, Compiled and Edited with the Cooperation of the Library of Congress and the National Union Subcommittee of the Resources Committee of the Resources and Technical Services Division, American Library Association. The National Union Catalog, published in London by Mansell from 1968 to 1981, was a collaboration

among hundreds of libraries in the United States and Canada. The NUC originated in the exchange of catalogue cards started in the early years of the twentieth century by the Library of Congress, the New York Public Library, Boston Public Library, Harvard University Library and several other research collections. By 1926 it had grown to two million cards. A \$250,000 grant from John D. Rockefeller, obtained by the ALA, allowed the card collection to grow to over six million author or title main entry cards by 1932 (*National Union Catalog*,1968, p. viii). Similar cooperation produced the 'Eighteenth Century Short Title Catalogue,' (now the 'English Short Title Catalogue', ESTC, with coverage extending to the beginning of printing in England in 1472) initiated by the British Library in 1976, ultimately involved contributions from over two thousand other libraries. The computer, machine readable catalogue records, and OCLC made shared catalogues and patron involvement simpler. OCLC, 'a global library cooperative', started as the Ohio College Library Center in 1967 and now has 17,000 members and a database of 380 million records (OCLC, 2016) including those developed by the Research Libraries Group (RLG), a shared cataloguing endeavour of 100 academic and research libraries that merged with OCLC in 2006.

In the 140 years since the founding of the ALA and the Library Association, libraries have developed strong consortia on both national and international levels. In the 1960s, libraries developed and adopted digital tools that made global sharing of records and materials possible. What is common to all the above is the focus on shared cataloguing, the development of standards, union catalogues, shared acquisitions and exchange, and alliances to develop and implement new computer technologies. All of this, while aimed at providing better service to library patrons, was internal to the library community. Technology and improvements in communications have played an important part in building this foundation. The introduction of parcel post, first in Europe in the 1880s and in the United States in 1913, made inter-library loans for books affordable. Photostats and photocopiers made document and journal article loans possible. In the 20th century, libraries began the preservation and dissemination of unique

collections by filming and digitisation. Most recently the new Qatar National Library began an ongoing project with the British Library to digitise material relevant to the Gulf region, the Islamic world, and Arabic culture. India Office Records from 1763–1951, historic maps and atlases, and Arabic Manuscripts from the British Library on medicine, mathematics, astronomy, and engineering are now available in an accessible, high-quality format for scholars worldwide. The join project has digitised 1.5 million pages in its first two phases. A third phase will add another 900,000 pages. The project has attracted more than 1 million users since 2014 (QNL, 2018).

While the twenty-first century has given libraries new tools, the major challenges remain those of the past: financial and existential. Funding has always been important: libraries need money to pay their staff, to keep buildings open and operational, and to buy books and journals and other resources. Fires, floods, wars, insects, cultural genocide, and wilful neglect have caused the destruction of much of the world's heritage. Many people in ages prior to ours did not see the need for libraries, either public or academic. In nineteenth-century England, there was resistance to creating free public libraries, with the opposition arguing that if they did not pay for the working man's pint, why should they pay for his penny newspaper? (The Publishers' Circular, 1874, p. 902). Libraries may be facing greater threats today: why pay for libraries and books when everything is free online? Austerity budgets in England have seen over 500 council libraries closed or transferred to voluntary or commercial firms and library-paid library staff cut by eight thousand, a loss of a quarter of total staff (BBC News, 2016). There is an increasing questioning if libraries and librarians are still necessary in this age of remote databases, Google, and selfcheckout machines for the (allegedly) little print that remains and an assumption (falsely based) that librarians will shortly disappear (McKenzie, 2018). With declining budgets and everincreasing costs, can libraries continue to survive? Or be privatised and taken over by Amazon (Lyons 2018)? That suggestion, published online in Forbes, caused a firestorm of rebuttal and was deleted from the Forbes Webpage. Did some library archive it before it was lost?

In October 2017, the Hong Kong Library Association had a workshop as part of IFLA's global discussion on 'how a united library field can tackle the challenges of the future'. Two of the HKLA workshop statements, looking forward five years, seemed particularly appropriate to the topic of united libraries. The first was 'we have moved towards deeper integration of public, academic and other libraries in Hong Kong, with equitable service across society...' and the second was 'All ... resources in Hong Kong libraries are accessible to all over the world...' The concepts of integration and global accessibility were practices workshops members thought libraries were good at. Among those practices are collaboration, networking, innovation, and quality of metadata ('Global Vision Discussion', 2017). For Hong Kong, open access has long been important and some, such as the University of Hong Kong (HKU), require researchers to deposit their work in an Open Access repository (Chan and Cheung, 2017, p. 490). Despite this, open access publication for HKU is still only 16 percent of total publication, varying among fields, with social sciences far lower in contributions than medical or physical sciences (Chan and Cheung, 2017, p. 495, 491).

While Google Scholar can find articles and book chapters contributed to institutional repositories there are drawbacks to this. Unless the publisher allows it (or the author or his institution pays for it) only the manuscript or unrevised proof is available, not the final, possibly corrected copy that would be necessary for a proper citation.

Major databases such as Project Muse and JSTOR excel in providing access to their collections of academic publications: good interfaces, good metadata, advanced searching. For open access the situation is still in its early stages but shows potential. The Directory of Open Access Repositories, *Open*DOAR, lists over 3,700 repositories worldwide. The Directory of Open Access Journals (DOAJ) indexes almost 12,000 journals, over 70% at article level, and links to over three million articles. And, importantly, both *Open*DOAR and DOAJ are international in their coverage, providing a platform for scholars to publish from anywhere in the

world. CORE (COnnecting REpositories), founded in 2011 and based at the Open University in Great Britain, aims to be the most complete aggregator of open access content. It currently holds almost 134 million open access articles, including many thousands from Elsevier and Springer. CORE recently announced that it will partner with ProQuest to enable its open access content in ProQuest's Ex Libris Primo and Summon discovery interfaces (Fahmy 2017).

Just as in the shared creation of the *National Union Catalog* or ESTC in the past, this is where the future of consortia needs to advance. We need the same ability today for allowing the discovery of digital works in scattered repositories, with metadata sufficient for retrieval and access globally. Libraries took the lead in getting their institutions to move into open access. Can libraries become the force that would link repositories together? Open access, if articles simply remain as academic fodder filling hidden silos, is still no access. Building a repository is expensive in terms of time, staff, and digital resources. Cooperatively sharing the costs regionally and globally would continue our cooperative/consortial tradition and keep libraries in the forefront of providing affordable access to information.

According to a study by the Max Planck Society, libraries worldwide spend '€7.6 billion in subscription fees for access to between 1.5 million and 2 million new papers annually, or between €3800 and €5000 per paper', many of them from high-priced subscriptions from companies like Elsevier (Vogel and Kupferschmid, 2017). It is difficult to justify that price when Elsevier can report profits of almost 40%. Even at its high point in publishing, 31,000 papers in 2013, PLOS ONE accounted for only about two percent of that output, but only at a cost of USD 1,500 to USD 2,900 (approximately €1300 to €2500) for Article Processing Charges (PLOS ONE, n.d.). Some consortia have been criticised as being mere buyers' clubs, only concerned with lowering costs but not using their financial leverage to obtain longer-term benefits. In 2017, academic libraries in Germany joined together in what could be a 'Not Buying Club' by refusing to renew their Elsevier subscriptions. Formed into a group called 'Projekts DEAL' they are

resisting the high subscriptions of Elsevier and other publishers by refusing to buy unless they are charged a reasonable fee in return for open access worldwide for German authors. Should they succeed in bringing costs down to €1,300 per article, a level they consider reasonable, libraries could collectively save five billion euros, money that could go back for books and other resources. Elsevier extended the German subscriptions in 2017 while negotiations continued. DEAL broke off negotiations in July 2018 when they reached an impasse ('DEAL and Elsevier negotiations', 2018). In Asia, the Consortium on Core Electronic Resources in Taiwan (CONCERT), representing 220 institutions, has taken the same steps, with over 75% of members cancelling their 2017 Elsevier subscriptions ("Big Deal Cancellation Tracking". n.d.). Elsevier also extended CONCERT's subscriptions to the end of 2017 as negotiations continue.

Elsevier has experienced additional pressure from German academics who have resigned as editors and members of Elsevier editorial and advisory boards ('Researchers Resign Editorship of Elsevier Journals' 2017). The Germans are not alone. Almost 17,000 other academics, researchers, and librarians worldwide have also signed an online petition to boycott Elsevier (The Cost of Knowledge, n.d.). Universities, funding agencies, and taxpayers have already paid for the research: they shouldn't have to pay unreasonable sums for it again in subscriptions or in unreasonable article charges to make it 'free'. Libraries have avoided cancellations because of fear of faculty reactions when needed journals are cut and an assumption that they are powerless in a battle with the major publishers. Faculty have been supportive, as seen above. And it is the publishers, not the libraries, who have the most to lose from the cancellation of unreasonably-priced and unsustainable subscriptions. Publishers in the United States in 2015 had almost US\$28 billion in revenues (International Publishers Association 2016) while total US library expenditures were approximately \$22 billion ('Global Library Statistics', n.d.). While much library expenditure is for salaries, almost 40% of academic library expenditure in the United States goes to collections. Academic libraries in the United States spent \$2.6 billion on their collections in 2008). Globally, academic library expenditures were over \$14 billion and total

('Academic Libraries Survey', 2008l 'Global Library Statistics', n.d.). Libraries are a major industry and can exercise some degree of market power. What other market do the publishers have their journals except for the libraries? According to the Association of American Publishers, 97% of STM journal subscriptions are institutional and subscriptions account for 84% of their revenue (Association of American Publishers 2015).

The libraries in Germany and on Taiwan have made a stand and continue to hold their positions. This could, however, become an 'Academic Spring', failing to survive the harsher and ruthless world outside of Academe. An earlier boycott by Dutch universities of Elsevier resulted in a three-year settlement in which the Dutch universities, who had wanted to make their articles open access without any charges, settled for only a third of their original demands (Grove, 2015). It remains to be seen if this uprising will succeed and if it will spread to other regions. Will there be a compromise that ultimately favours Elsevier? Or could the refusal of the libraries to compromise become a template for the future of library cooperation, not only in securing better 'deals' but also in moving away from traditional publishing. As Alex Holcombe and Björn Brembs wrote in a recent THE article, rather than 'continuing to work with the legacy infrastructure of Elsevier', German universities should consider 'walking away from the negotiating table and seeking a broader consortium to collectively create a service market based on a modern IT infrastructure that can accommodate all scholarly works' (Holcombe and Brembs, 2017).

Academics, of course, publish to be read. They must also publish in top journals to score points on various government/funder assessment exercises. Publication must be in top-level, peer-reviewed international journals, most of which are distributed by the major publishers. How can journals with such standing be created and maintained outside of those publishers? For those academics who are willing to take the risk and boycott Elsevier or other publishers and publish instead only in conference proceedings and on specialist sites, there is the danger that it will

make it difficult if not impossible for libraries to acquire, to make accessible, and most importantly, to preserve their works. Libraries and research institutions must work together to make this material available in one common database, and it must be on a scale and quality to compete with Science Direct or Springer. The major publishers stand on their reputations, but universities also have reputations and credibility that they already use behind their presses and their own research publications. Universities and libraries can provide the necessary peer review to open access material just as they do now for publishers. It would be (or should be) expected that repositories run by universities would have a standard of excellence for deposit. However, deposit is only one part, and perhaps the least important part. What is most important is dissemination. A recent initiative by teaching faculty and librarians, Fair Open Access (FairOA, https://www.fairopenaccess.org/) maintains a set of five principles: transparent ownership, authors' retention of copyright, open access, no fees for publication, and fees paid to publishers are transparent and proportional. Starting in 2015 with funding from the Association of Universities in The Netherlands and others it was able to flip four journals in linguistics to fair open access. Journals in the fields of mathematics and psychology will begin publishing in 2018. The twenty journals published by the FairOA Open Libraries of the Humanities are funded by subscriptions from almost 200 libraries in 15 countries (Holcombe and Wilson, 2017)

Together, the above are three harbingers of what consortia could do: universally linked repositories, united opposition to unreasonable pricing, and the return of scholarly publishing to the institutions that pay, often double and triple, for it. There is one more component that must also be present the key in open access: making it discoverable. Libraries and vendors have invested much effort and money in providing their patrons what their patrons get in Google: a single interface with a single search box. Many libraries now have a one-search box on their library page and users expect it to search across all the library's databases. Unlinked resources are not found. In June 2018, the Modern Language Association announced that it had signed an exclusive agreement with EBSCO for both database and discovery access for the MLA

International Bibliography, citing the costs involved in working with multiple vendors ('Letter to MLA Bibliography Customers', 2018). The International Coalition of Library Consortia responded with a Letter of Opposition, noting that this was done without consultation and that 70% of the ICOLC libraries used Summon, Primo, OCLC and other discovery services, meaning that MLA would longer be discoverable for them and forcing some to cancel their MLA subscriptions ('Consortial Letter of Opposition', 2018). MLA is a significant resource and was just adding full-text to its index. As a stand-alone it would still be useful but, like most currenly isolated institutional repositories, something that only a few would know about and even fewer use.

Historically, libraries have benefited from working together. Like our librarian ancestors we need to look at the world as it is and create a vision where our libraries move forward together into a better future. This should be a revolution with library characteristics, leading to a future of information access with the library characteristics of transparency, free access, adherence to standards, and communication.

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