

‘ALL THE WORLD’S KNOWLEDGE’

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The text of her British Academy Law Lecture – ‘From Hypatia to Victor Hugo to Larry and Sergey: “All the world’s knowledge” and universal authors’ rights’ – was one of the first articles posted to the new online open-access *Journal of the British Academy*, in July 2013. The lecture discusses the legal implications of two competing claims: the utopian aspiration to provide access to all knowledge, and pursuit of the universal protection of authors’ rights. The full article in the *Journal* may be found via www.britac.ac.uk/journal/

In the following edited extract, Professor Ginsburg provides some background to the legal discussion by describing some historical examples of ‘access to knowledge’ utopianism.

Utopian dreams of a universal archive of knowledge almost always refer to the Library of Alexandria. It is often described as a ‘universal library’. According a 2nd-century BC document from the Jewish community of Alexandria, its mission was ‘To collect ... all the books in the world.’¹ Commentators throughout antiquity and early Christianity similarly evoked the comprehensive aspirations of the library. The American classicist and historian Roger Bagnall has described the persistent power of the idea of the Library of Alexandria:²

[T]he Library of Alexandria bequeathed the image of itself, the idea of a large, comprehensive library embracing all of knowledge. ... The Library ... appealed to the imagination of all who wrote about it. Its grip on the minds of all who contemplated it was already in antiquity as great as it was later, and it hardly mattered what fanciful numbers they used to express its greatness. Although the authors whose works survived antiquity told posterity little of any concrete substance about the Library, they transmitted its indelible impression on their imaginations.

¹ So says the oldest known document referring to the Library, the 2nd-century BC Letter of Aristeas. D. Heller-Roazen, ‘Tradition’s Destruction: On the Library of Alexandria’, *October*, 100 (2002), 133-53 at 141.

² R.S. Bagnall, ‘Alexandria: Library of Dreams’, *Proceedings of the American Philosophical Society*, 146 (2002), 348-62 at 361.

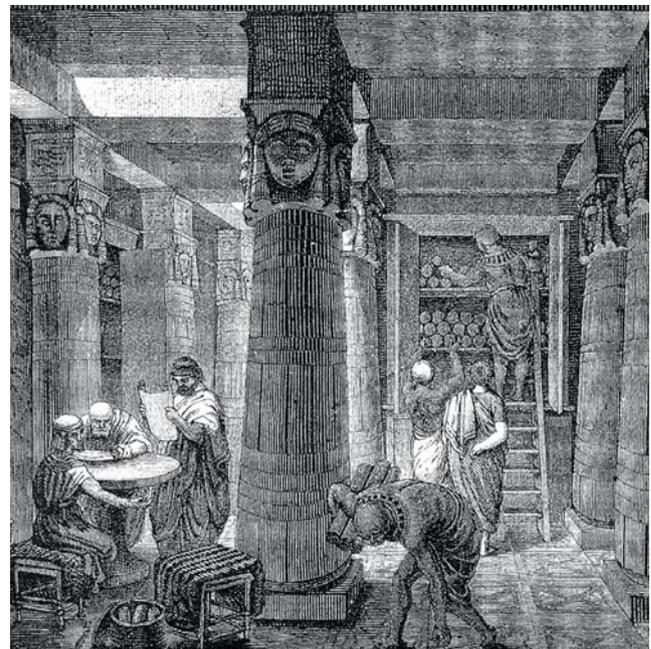
³ See R. Chartier, ‘Libraries Without Walls’, *Representations*, 42 (1993),

Doni’s Libreria

Moving ahead some 1,500 years, with the advent of the printing press and the vast increase in the range of books, new and old, that it enabled, no single place could unite all literary and scientific productions. The urge to comprehensive knowledge did not abate, however. Rather it spawned a new kind of collection and systematisation, the thematic catalogue.³ For example, in 1550 the Florentine man of letters and bibliographer Anton Francesco Doni published in Venice his *Libreria*, subtitled ‘in which are inscribed all the vernacular authors with one hundred discussions of them [as well as] all the translations made from other languages into ours, and an index generally laid out according to the customs of booksellers’.⁴

Doni seems to have become obsessed with his task, for a subsequent printing from 1550 tells us that it is ‘newly reprinted, corrected, and with many things added that were missing’.⁵ In 1557 the indefatigable Doni produced a second edition, featuring an even more prolix subtitle,

Figure 1. A much reproduced 19th-century imagining of ‘The Great Library of Alexandria’, by O. Von Corven. Source: Wikipedia Commons.



38-52.

⁴ ‘La libreria del Doni fiorentino. Nella quale sono scritti tutti gl’autori vulgari con cento discorsi sopra quelli. Tutte le traduzioni fatte all’altre lingue, nella nostra & una tavola generalmente come si costuma fra librai.’

⁵ ‘Di novo ristampata, corretta, & molte cose aggiunte che mancavano.’

informing us that his work now consists of three treatises, and stating that the second treatise includes Doni's more recent listings of the authors, the works, the titles and the substance, and that his book is 'necessary and useful to all those who need knowledge of [our] language, and wish to know how to write and think about all the authors, their books and their works'.⁶ The *Libraria* went through further editions, even following Doni's death, as successive publishers sought to satisfy a vigorous demand for this kind of compendium. Thus, a 1580 edition tacks on to Doni's run-on title the information that to the current printing 'have been added all the vernacular works published in the last 30 years in Italy'. However, in a punctilious nod to the Counter-Reformation, the 1580 edition's subtitle also cautions 'and having removed all the prohibited authors and books'.⁷

Otlet's 'Universal Book of Knowledge'

We skip forward to the end of the 19th century where we encounter Belgian lawyer and visionary Paul Otlet, a spiritual descendant of Doni, but by a power of ten (at least). He imagined a 'Universal Book of Knowledge' in which:⁸

[A]ll knowledge, all information could be so condensed that it could be contained in a limited number of works placed on a desk, therefore within hand's reach, and indexed in such a way as to ensure maximum consultability. In this case the World described in the entirety of Books would really be within everyone's grasp. The Universal Book created from all Books would become very approximately an annex to the Brain, a substratum even of memory, an external mechanism and instrument of the mind but so close to it, so apt to its use that it would truly be a sort of appended organ, an exodermic appendage. ... This organ would have the function of making us 'ubiquitous and eternal'.

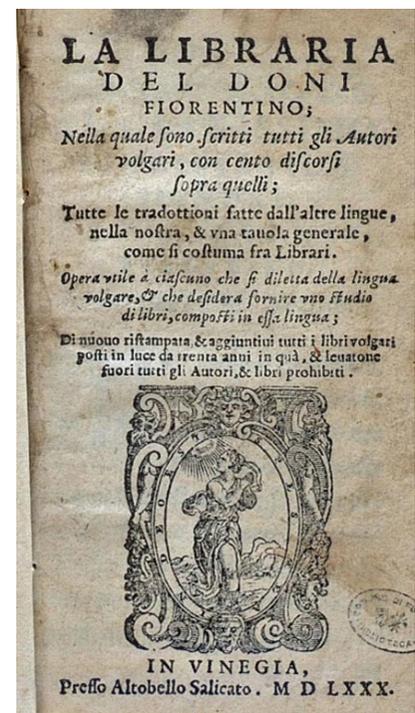
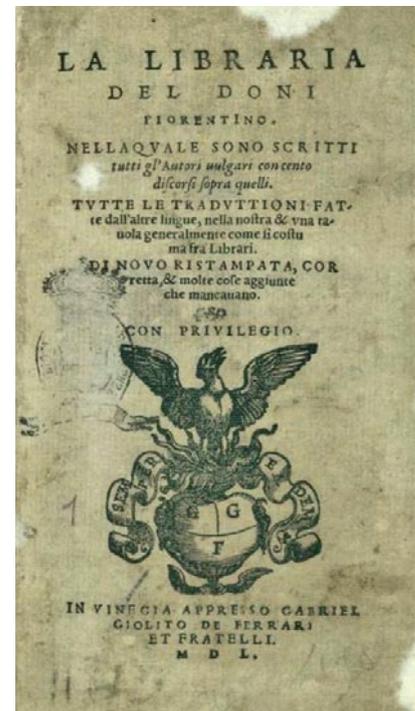


Figure 2. 'All the authors': Doni's *Libraria* in its first two editions of 1550 and the editions of 1557 and 1580. Sources: photograph of first edition by Jane C. Ginsburg, from the Columbia University Rare Book Room; and EDIT16, Istituto Centrale per il Catalogo Unico delle biblioteche italiane e per le informazioni bibliografiche).

⁶ 'La libreria del Doni fiorentino, divisa in tre trattati. Nel primo sono scritti, tutti gli autori volgari, con cento & piu discorsi, sopra di quelli. Nel secondo, sono dati in luce tutti i libri, che l'autore ha veduti a penna, il nome de' componitori, dell'opere, i titoli, & le materie. Nel terzo, si legge l'inventione dell'academie insieme con i soprannomi, i motti, le imprese, & l'opere fatte da tutti gli academici. Libro necessario, & utile, a tutti coloro che della cognitione della lingua hanno bisogno, & che vogliono

di tutti gli autori, libri, & opere sapere scrivere, & ragionare.'

⁷ 'Di nuovo ristampata, & aggiuntui tutti i libri volgari posti in luce da trenta anni in qua, & levatone fuori tutti gli autori, & libri prohibiti.'

⁸ P. Otlet, *Traite de documentation: Le Livre sur le livre, theorie et pratique* (Brussels, 1934), p. 428. The translation is adapted from W.B. Raymond, *International Organisation and Dissemination of Knowledge: Selected Essays of Paul Otlet* (Amsterdam, 1990), p. 1.



Figure 3. Paul Otlet's documentary project, in an undated photograph before World War I. Source: Wouter Van Acker, 'Internationalist Utopias of Visual Education: The Graphic and Scenographic Transformation of the Universal Encyclopaedia in the Work of Paul Otlet, Patrick Geddes, and Otto Neurath', *Perspectives on Science* 19 (2011).

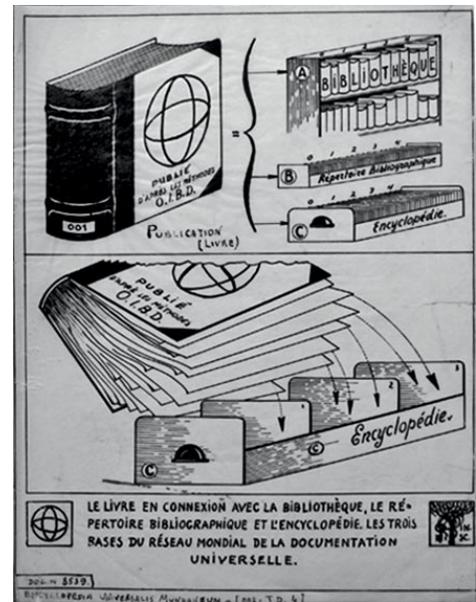


Figure 4 above right. Paul Otlet was not only a visionary but a striking illustrator of his universalist projects. Here, the book is dissected into its components, transformed into documentation – perhaps to become a part of the 'Universal Book'. Source: Charles van den Heuvel, 'Facing Interfaces: Paul Otlet's Visualizations of Data Integration', *Journal of the American Society for Information Science and Technology*, 62 (2011), 2313–2326.

Sounds like science fiction, only today's futurists would house the information in an 'endo-dermic appendage', such as a brain-embedded microchip to which information could be uploaded, à la *The Matrix*. Otlet's frenzied efforts to capture and catalogue all the world's knowledge produced real information-processing innovations, too. He invented the great search tool of libraries of yore, the on-ubiquitous system of index card files on rods in pull-out drawers in library cabinets. And with over 12 million of those index cards he created an archive he called the Mundaneum, which he saw as a successor to the Library of Alexandria, the *Summa* of Aquinas, the *Encyclopédie*, and all the world's great libraries, museums and world expositions put together. We might perceive it as a kind of Google *avant la lettre*. Otlet declared that the Mundaneum 'is about gathering, condensing, classifying, coordinating ... finally, to represent and to reproduce'.⁹ (The Mundaneum still exists physically in Mons, Belgium, and virtually at www.mundaneum.org. Perhaps fittingly, it benefits from Google's sponsorship.)

Bush's 'memex'

Otlet also co-invented microfilm, a new technology that far exceeded his principal bibliographic efforts.¹⁰ This new, convenient and compressed storage medium could enable libraries both to preserve fragile volumes and to increase their collections while occupying far less shelf space. With microfilm we go beyond summarising the contents of books to return to the original utopian aspiration of

gathering all the world's books themselves. But at this point the visionaries address the possibility that all this content could come within the grasp not only of institutions but also of individuals. In 1945, Vannevar Bush – who, as the director of the wartime US Office of Scientific Research and Development, was one of the forces behind the Manhattan Project – contemplated the revolutionary promise of microfilm. In a noted essay published in the *Atlantic Monthly* in the closing months of the Second World War, Bush proposed a 'memex', a private device for information storage and retrieval that, by responding to and storing the associations that the human

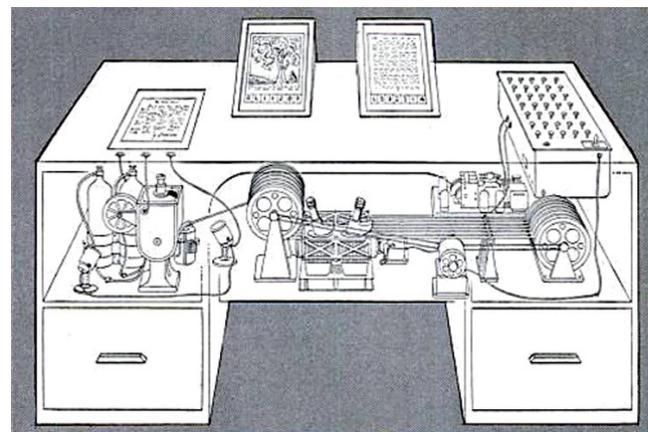


Figure 5. Vannevar Bush's 'memex', as imagined in the 10 September 1945 edition of *Life* magazine. Source: Google's Life archive.

⁹ P. Otlet, *Monde: Essai d'universalisme* (Brussels, 1935), p. 450 (translation mine).

¹⁰ See R. Goldschmidt and P. Otlet, *Sur une forme nouvelle de livre: Le Livre*

microphotographique (1906), translated in Raymond, *International Organisation*, pp. 87-95.

mind produces, would transcend the 'artificiality of systems of indexing' used in libraries.¹¹ Bush described the device and its capacities as follows:

A memex is a device in which an individual stores all his books, records, and communications, and which is mechanized so that it may be consulted with exceeding speed and flexibility. It is an enlarged intimate supplement to his memory.

Note the 'memory supplements' metaphor recalling the Otlet-ian 'exodermic appendage' of the mind. Mechanical storage adjuncts to the brain join the Library of Alexandria as a top trope for the bibliographically inclined. Bush continued:

It consists of a desk, and while it can presumably be operated from a distance, it is primarily the piece of furniture at which he works. On the top are slanting translucent screens, on which material can be projected for convenient reading. There is a keyboard, and sets of buttons and levers. Otherwise it looks like an ordinary desk.

In one end is the stored material. The matter of bulk is well taken care of by improved microfilm. Only a small part of the interior of the memex is devoted to storage, the rest to mechanism. Yet if the user inserted 5000 pages of material a day it would take him hundreds of years to fill the repository, so he can be profligate and enter material freely.

Digital Public Library of America

From the photographic impressions of microfilm to today's digital scanning, the prospects for the great and universally accessible compendium of content are en route to realisation. Indeed, Harvard University librarian and renowned historian of the book, Robert Darnton, last year announced the April 2013 launch of the Digital Public Library. At a lecture at Columbia Law School in April 2012, Darnton declared: 'We know that we want the DPLA to serve a broad constituency: not just faculty in research universities but students in community colleges, ordinary readers, K-through-12 school children and seniors in retirement communities – anyone and everyone with an interest in books.'¹² Darnton is confident that the DPLA will overcome any technological and funding impediments. There remains one stumbling block: many of those interesting books are still under copyright, and sorting through the rights clearance may prove daunting if not intractable.

For over 100 years, the British Academy has held public lectures, lectures that cumulatively form a unique record of scholarship in the humanities and social sciences. To provide wide access to the outputs of this lecture programme, the Academy has launched a new online open-access *Journal of the British Academy*.

Subjects covered by the first articles include: the study of anthropology at the beginning of the 20th century; the history and current significance of the Scottish Mental Surveys of 1932 and 1947; and birds in Edward Lear's poetry and art.

The *Journal of the British Academy* can be found at www.britac.ac.uk/journal/



¹¹ V. Bush, 'As We May Think', *Atlantic Monthly* (July 1945), 101-8, at 106-7.

¹² R. Darnton, 'Digitize, Democratize: Libraries and the Future of Books', *Columbia Journal of Law & the Arts*, 36 (2012), 1-19 at 16.