

## Academic Books in the Digital Age

By Eelco Ferwerda

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**Readers of the *Academische Boekengids* (the Dutch academic book review) may not be able to imagine this, but ten years ago there was plenty of speculation about the demise of printed book. Electronic processing would replace paper print. Books on paper would become collectors' items like vinyl records. So far, it hasn't happened. But how do things stand for the academic book? How has the digital era affected this type of publication?**

This year has seen for the first time the publication of a thorough study in book form: *Books in the Digital Age. The Transformation of Academic and Higher Education Publishing in Britain and the United States* by the English sociologist John B. Thompson. Thompson, a professor at the University of Cambridge and one of the founders of the publishing company Polity (a fact not mentioned in the book) analyses the Anglo-Saxon book industry since 1980. It is the period in which the academic book came under an increasing amount of pressure and electronic publishing emerged. As indicated in the subtitle, Thompson focuses on academic books: both books intended for colleagues (the monograph) and books for higher education (the textbook).

The prosperous years for academic books lie before this period, in the years after the Second World War. The reason is obvious: it was the golden age for higher education in the West and particularly in the United States. Due to the post war baby boom and strong economic growth, the number of undergraduates increased fivefold between the years 1945 and 1975. The number of graduates increased ninefold. And in the sixties there were more university appointments than in the previous three centuries put together.

The Cold War also contributed to the blossoming of the academic book. Since the Second World War, the American government contracted their research projects directly to academic institutions, in an attempt to keep up in the technological race with the Soviet Union. Because the American academic market is by far the largest for scholarly publications, this meant an unprecedented boom for academic publishers.

However, from the mid seventies onwards print runs for academic books began to show a steady decline. Apart from changing circumstances at universities, this trend was largely due to a shift towards scholarly journals. Journals became more important in the dissemination of knowledge and due to the growing scientific specialisation their number increased. There are currently about 12,000 international scholarly journals, with two to three hundred new titles added every year. But the most important aspect of this shift is financial. Between 1970 and 1997, scholarly journals became about three times more expensive (an annual increase of thirteen percent). This increase has often been blamed on Elsevier, the largest publisher, but Thompson shows that the competition followed suit.

'IT MAY NOT BE LONG BEFORE SOMEBODY PUBLISHES A MONOGRAPH THAT DEVELOPED OUT OF A WEBLOG.'

The budgets of academic libraries did not keep up with the rising prices. Confronted with the choice between cancelling subscriptions and buying fewer new titles, they allocated a larger part of their budgets to journal subscriptions. And since university libraries are the largest buyers of academic books, this was clearly reflected in the sales figures. In the seventies, the print run of the hardback edition of a monograph was usually between two- to three thousand copies, whereas nowadays five hundred or even fewer is very common.

Publishers tried to stem the tide in various ways. They became more selective in their choice of manuscripts to be published. They published paperback editions more often and much sooner. However, the profit margins for paperbacks are much lower and the risks far greater, as the bookshops return unsold books to publishers. Some commercial publishers even pulled out of the academic book market altogether.

Another strategy has been to diversify the list, for instance, by publishing academic textbooks. In that area, academic publishers had to compete with the established, ever larger and more internationally oriented educational publishers such as Pearson and Thomson.

University presses, who are bound to publish valuable scholarly work, have suffered more from the changing conditions than commercial publishers. And the American university presses suffered more than their English relations in Oxford and Cambridge, because they are less diversified. They are principally active in the American market, publish fewer journals that can be priced up, and publish more in the area of social sciences and humanities, where research budgets are lower and where there is less money to be made than in, for example, natural sciences.

Electronic publishing began in the middle of the 1980s. For the academic world, it began with citation indices and bibliographic files, first on CD-ROM, later also online. With the invention of the World Wide Web by Tim Berners-Lee (the invention of hypertext, which made it possible to link to others' documents on various computers), and the arrival of the web browser in 1991, the digital era dawned for a wider public.

The web has radically transformed the landscape of academic publishing, especially for scholarly journals. These received electronic editions in the form of e-journals, collected in databanks such as Reed Elsevier's ScienceDirect. And then there were databanks for pre-prints (manuscripts submitted for publication, but not yet accepted), such as arXiv in Los Alamos.

University libraries organised online access to scholarly publications, and started to develop *Digital Academic Repositories*: electronic archives for sustainable storage and access to scholarly information. Libraries play an important part in the *Open Access* movement, which aims at free availability of scholarly literature. There has been an increasing number of Open Access Journals, such as those from BioMed Central and PLoS (Public Library of Science). Some traditional publishers, for example Oxford University Press and Springer Science + Business Media, have been experimenting with mixed models for journals, whereby articles are published both conventionally and via open access.

In retrospect, the rapid switch to e-journals is easily explained: journal articles are of limited length and can be easily read on screen or printed out; scholars are mostly interested in specific articles in their research area and therefore benefit from a large collection of journals that they can access from their desk. And online access to those collections offers the possibility of simple tracking of cross-references in the literature.

Reference works also lend themselves well to digital use, because of the limited quantity of information that is read at a time; the ease with which specific information can be found; the enormous amount of information that can be stored; and the fact that the information can be updated relatively cheaply and easily.

The striking exception in the digitisation of scholarly publications is the academic book. Readers engage differently with books because of their length and linear character. Books have a narrative structure or contain what Thompson calls sustained argument, which requires more of the readers' time. Of course the legibility of the text is important, but readers also like to leaf through a book, carry it with them and use it wherever they like. Despite all speculation to the contrary, computers have not been able to match the extraordinarily effective reading device that the book has been for centuries.

However, electronic books, or *e-books*, do seem to meet a demand, not so much as individual titles, but as collections intended for academic institutions. Successful initiatives in that area are based on a corpus of related electronic books with, on the one hand, sufficient range, and, on the other, clear focus and selectivity. Examples of such collections are CIAO (Columbia International Affairs Online, a collection of works on international affairs set up in 1997, in which a lot of grey literature has been included) and OSO (Oxford Scholarship Online, a selection of the best older and recent OUP publications in the four academic fields, started in 2003).

'IMAGINE BEING FORCED TO REPLACE YOUR PERSONAL LIBRARY OF E-BOOKS, JUST BECAUSE YOU'D LIKE TO BUY A NEW READING DEVICE.'

Although digitisation has had little effect on books as a product, this does not mean that there haven't been tremendous changes: books are being digitised and made searchable through Google Books; they can be found through search engines such as Google and Yahoo! and purchased through online bookstores such as Amazon, BOL and Barnes & Noble. Google is particularly interesting. Starting out as an amazingly simple and fast internet search engine, they turned into the world's largest information broker, without the publishing industry paying much attention.

In the past year, Google has become an important player in the academic world. Thanks to Google Books, millions of books are being digitised and made accessible through the internet, and through Google Scholar, it has become easier to locate academic literature. Yahoo! is also indexing academic information and recently announced it will take part in the Open Content Alliance to digitise books in the public domain. Such initiatives are contributing to a further shift towards the internet in the exchange of academic knowledge.

In addition, a growing number of books are available on demand through *Printing on Demand* (PoD). Thomson calls this shift towards digital printing the 'hidden revolution'. Through advanced digital printing technology it is now possible to produce books in very small print runs, even as individual copies. As a result, books can be printed close to the delivery address, lowering storage and distribution costs, as well as the cost of returns. In principle, this allows the life cycle of a title to continue indefinitely, giving rise to various new publishing models.

The monograph does not lend itself well for direct translation into a digital version. But isn't it much more likely that there will emerge a new form through the internet, which benefits from the specific possibilities of digital media? As early as 1999 the historian Robert Darnton wrote some influential

articles on this issue: 'A Historian in Books. Lost and Found in Cyberspace' (*The Chronicle of Higher Education*) and 'The New Age of the Book' (*The New York Review of Books*).

As a historian who has spent a quarter of a century researching the history of the book in the time of the French Enlightenment, Darnton is painfully aware of the limitations of the monograph. He describes the dilemma of a historian who has spent years searching in archives and has amassed a wealth of material of which only a fraction ultimately lends itself to book treatment. His research done, the historian is left with boxes full of additional information, and ideas for new projects which do not merit a book as too few people would be interested in it, and in any event would demand so much time that he would not get round to anything else.

Darnton introduces what he calls the 'pyramid model', a layered presentation of all kinds of information: 'The top layer could be a concise account of the subject, available perhaps in paperback. The next layer could contain expanded versions of different aspects of the argument, not arranged sequentially as in a narrative, but rather as self-contained units that feed into the topmost story. The third layer could be composed of documentation, possibly of different kinds, each set off by interpretative essays. A fourth layer might be theoretical or historiographical, with selections from previous scholarship and discussions of them. A fifth layer could be pedagogic, consisting of suggestions for classroom discussion and a model syllabus. And a sixth layer could contain readers' reports, exchanges between the author and the editor, and letters from readers, who could provide a growing corpus of commentary as the book made its way through different groups of readers' (from 'The New Age of the Book').

Darnton hoped that this approach would kill two birds with one stone. Scholars would be released from the limitations of the monograph and would be able to present their research material in new ways; publishers would be able to market new digital works alongside books, creating a new revenue stream to sustain academic publications. Darnton himself has followed up his words with deeds and has since been working on an electronic book on publishing and the book trade in eighteenth century France.

There are several scholars who have experimented with the possibilities of the digital media. For instance the project 'Valley of the Shadow' of the historian Edward Ayers, a digital collection of thousands of sources such as maps, letters, newspapers, photos, as well as ecclesiastical, municipal and military archives, in which the reader can follow the experiences of the Northern and Southern communities during the American Civil War. Another example is 'The Rossetti Archive' of the literary scholar Jerome McGann, that brings together the complete works of the English poet and artist Dante Gabriel Rossetti in a multimedia format, and offers a number of applications for all kinds of analysis.

Darnton's hope that, given these new digital possibilities, publishers will be able to generate new revenues, has not been fulfilled. So far, most projects are experimental, mostly achieved with the help of subsidies – in the US, for instance, from the Mellon Foundation, which has underwritten several digital projects – and are being carried out outside the regular publishing channels.

The printed book has survived the first waves of digitisation, but new technological developments could well change that. We have already been waiting for more than ten years for the promised e-book reader with the hitherto unsurpassed qualities of paper: easy to read in all situations, and easy to carry around and to store away. But the moment when such a machine becomes available is not far off. Philips has recently presented a prototype of scrolling electronic paper and expects to offer the first commercial version in 2007. And at last years Frankfurt Book Fair visitors could already marvel at a Japanese reading device, a bit like an iPod in pocket format, with surprisingly high screen resolution resulting in wonderfully legible text. Soon we may see commuters and holidaymakers with this machine in hand, in stead of a MP3 player around their neck, or students on their way to school without school packs laden with textbooks.

Clifford Lynch, director of the Coalition of Networked Information (which is specifically concerned with the potential of digital media for the advancement of scholarly communication and the enrichment of intellectual productivity) wrote a long article in 2001 on the implications of such e-books: 'The Battle to Define the Future of the Book in the Digital World', in *First Monday* (a peer-reviewed e-journal). E-books consist of three components: the device, the content, and the program with which the content is presented. In the case of an e-book reader, the device and the program (the hard- and software) are probably packaged together, as the manufacturer delivers the reader with the program already installed. For instance in the computer games market, we see a number of competing systems, each with their own technical specifications. As a result, the games of one manufacturer do not work on the players of another. It is even not unusual that manufacturers develop new players on which the old games from the same manufacturer no longer work.

This brings to light several dangers: Imagine being forced to replace your personal library of e-books, just because you'd like to buy a new reading device, or that the less popular e-books will not be available for the newest reading devices, or that a few manufacturers of the most attractive devices will be able to dictate price levels of e-books. This is the way in which the electronic industry usually works and what could very well happen in the transition from printed to electronic books.

Lynch warns that we must not lose sight of our implicit expectations of books, for instance, that we can

keep them and read them whenever we like, or that we can find them in a library when they are no longer available in bookshops. But at the same time, he emphasises that we should not let ourselves be led exclusively by the features of printed books and should make room for experiments with digital formats of knowledge exchange and education.

In *Books in the Digital Age*, Thomson gives an admirable overview of the transition of the academic book market following the emergence of digital media. However, he does not venture into the ongoing transformation of the web. One of the wondrous qualities of the internet is that it continually transforms itself, as new and often free applications spread through the web.

The past few years have seen the turbulent rise of *social software*, a collective term for various applications through which people can enter into contact with each other and easily publish information on the web. Examples of these applications are: instant messaging through MSN; online markets and meeting places such as eBay and Schoolbank; group software such as Yahoo! Groups; wikis such as Wikipedia, and weblogs, for instance, through Blogger. These and other applications have transformed internet into a personal communications and publication medium, leading to the rise of all sorts of online communities and based on all kinds of shared interests. Anyone interested in this transformation of the web should read *The Power of Many. How the Living Web is Transforming Politics, Business, and Everyday Life* van Christian Crumlish and *We the Media. Grassroots Journalism by the People, for the People*, by Dan Gillmor.

Crumlish calls this new phenomenon 'the living web' and shows how online communities are creating a new social dynamic. Gillmor looks at the fast-growing influence of notably weblogs on the news media and journalism. Weblogs are a sort of personal journal where visitors can post comments, with links to other places on the internet. Both authors used weblogs while writing their books, and have carried on with them after the books were published. Their books are thus snapshots of what they consider to be a social revolution taking place through the internet. And, naturally, their weblogs also serve to promote their books.

Crumlish and Gillmor show that weblogs can also serve as research aids: ongoing research is naturally ordered and made accessible, thus becoming part of the communication process with colleagues and other interested people. In this way, weblogs and similar applications are also being used by scholars and in higher education. It may not be long before somebody publishes a monograph that developed out of a weblog.

The question remains whether such applications can yield revenues. And even if that were the case, it might not result in a viable business model for digital publications. But it is clear that the internet has become an increasingly important channel for scholarly communication and knowledge exchange, and more and more information will be made available outside regular publishing channels. And these new publications will be more personal, dynamic and interactive than the familiar academic publications.

What does all this mean for the monograph? The academic book will not vanish in the foreseeable future, but digital media won't relieve this type of book from its perilous economic situation. And with the increasing importance of the internet for academic communication, it seems inevitable that the printed monograph will become further marginalised.

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### **Besproken boeken:**

Books in the Digital Age. The Transformation of Academic and Higher Education Publishing in Britain and the United States  
by John B. Thompson.  
Polity Press. Cambridge 2005.  
480 p. € 33,90

The Power of Many. How the Living Web is Transforming Politics, Business, and Everyday Life  
by Christian Crumlish.  
Sybex Inc. San Francisco 2004.  
288 p. € 27,60

We the Media. Grassroots Journalism by the People, for the People  
by Dan Gillmor.  
O'Reilly & Associates. Sebastopol 2004.  
320 p. € 26,70

### **Literatuur:**

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Robert Darnton, 'A Historian in Books. Lost and Found in Cyberspace' (*The Chronicle of Higher Education*), March 12, 1999

Robert Darnton, 'The New Age of the Book' (*The New York Review of Books*), vol. 46, no. 5, March 18, 1999

Clifford Lynch, 'The Battle to Define the Future of the Book in the Digital World' (*First Monday*), vol. 6, no. 6, 2001