

## **DOCUMENT SUPPLY TOWARDS THE YEAR 2000.**

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Although the year 2000 is only eight years away, predicting what will change between now and then is very difficult. Document supply will certainly become even more important, but there will be major changes in the role and nature of documents, their storage and transmission, access to documents, the economics of document supply and electronic publishing. In this paper I examine these changes, and look ahead to see what role libraries will have and how they should cooperate in document supply in the year 2000.

Document supply is of course of major importance today, and here I use the term 'document supply' in its broadest sense. One might even go so far as to say that document supply is the sole rationale for the existence of libraries. We are all here ultimately to provide access to information to our customers, and the great majority of that information is conveyed through documents.

Before looking at the changes let us be clear what we mean by documents. Ultimately, a document is simply a record of information. It may be a written record on paper, a written

record in electronic format, a video recording, a photograph, or a sound recording. As time goes on, the distinctions between these different forms of document will become increasingly unclear. Mixed media documents are already becoming commonplace, and by the year 2000 we shall surely expect anyone studying drama or music to want to see the text or score combined with high quality sound and visual performance on a screen. Teaching materials consisting solely of written documents will become less common, and libraries (or will they all be called mediatheques?) will inevitably reflect these changes.

Will the role of documents change by the year 2000? Most surely it will. From the point of view of the consumer (the word 'reader' will be a little archaic) there will be more leisure time, more documents to consume, more education, more research, greater knowledge, and greater interest in the world beyond the immediate environment. Many of the same factors will influence the producers of documents. More education, more leisure, more research and a bigger marketplace will demand higher and better production of documents. At the same time, the growth in both consumption and production will be weighted towards non-paper media. Both consumers and producers will have a choice of many different options for the media of their documents. They will be able to have articles or books printed on paper, but they may have to pay substantial sums for this privilege except in those few cases where this medium can be profitable. Growth in the purchase of books and magazines for leisure will continue, but growth in video documents will be much faster. By the year 2000, the best selling magazines will be videos, the number of pure paper magazines sold in high street shops will have reduced, and a substantial proportion of academic journals will exist only in electronic form.

Already in 1992 we are at a watershed when it comes to the storage of documents. It is already possible at least in theory to keep all the documents in a large library building on digital optical discs in a space occupying little more than three cubic metres. The ADONIS system which contains the full text of a few hundred scientific journals on CD-ROM is already operational and commercially successful. Once these electronic stores can more readily be purchased, the role of libraries will begin to be questioned.

Rapid changes in technology will affect the transmission of documents even more than they affect the storage of documents. Once the document itself is held electronically, there is no reason why the consumer or reader needs to be near the store. As broad band digital networks spread around the world, it will become increasingly straightforward to transmit almost unlimited quantities of data or documents from one place to another. We have long been accustomed to obtaining bibliographical documents in this way, by logging on to the vast indexing and abstracting databases and downloading bibliographical data across the world. Already now in the early 1990's many newspapers and financial journals have their full texts accessible online. The years of experimentation in the 1980's and early 1990's will surely be followed by the introduction of electronic scientific and technical journals which can be accessed remotely by anyone anywhere with a terminal, a modem, and access to the international telecommunications networks. By the end of the century, this will extend from printed material to visual material, so that one will be able to dial up the film or archive television programme which one wants to see in one's own home.

The consumer of information in the year 2000 will clearly have access to documents to a much greater extent than now, potentially far more rapidly than now and possibly at a lower

real cost than now. Computers will have gained such penetration into the home and the office that the need for libraries as we have known them up until now will have changed enormously. Unfortunately this electronic revolution is not taking place and will not take place at the same pace throughout the world. Like the previous stages of the information revolution, - the spread of literacy, the development of the printing press, the development of public education, the development of public libraries, the spread of the typewriter, the wordprocessor, the fax machine, - the electronic information revolution will leave many behind. The contrast between the information rich and the information poor whether within an institution, within a city, within a country, within a continent or across the world will become sharper. The differentiation between rich and poor will have a different character from today. Because there will be fewer sales outside the leisure market of books and particularly journals, the costs of the paper versions of these will increase faster than general inflation. The budgets of libraries will further be squeezed because the conventional book or journal is no longer seen as so important. At the same time, access to documents remotely will become easier and probably less expensive in real terms so that provided the infrastructure is created the consumer will have to make the choice of how much to spend on information. Free access to information (in either sense), long cherished by libraries, will almost certainly be more limited.

The economics of document supply in the year 2000 is very difficult to predict. For the last 20 years we have seen substantial growth both nationally and internationally in all aspects of document supply. More documents than ever before have been published. More people than ever before have been reading them. The profits of publishers have steadily (in some areas massively) increased. The budgets of libraries (with some exceptions) have increased

in real terms. But what happens in the electronic revolution? Who are the winners then, and who the losers? The paper book and journal are objects with an independent existence, fairly long survival rates, a physical presence, an aesthetic value and a fairly high cost of production and reproduction. As well as being good for the publishers, the books and journals are good for the authors, who gain kudos and in a few cases profit from their writings, they are good for the readers who can love them and cherish them, read them on a train or in the bathroom, in a laboratory or on a beach. They are value objects. In the new electronic environment, many of these factors change. Will the authors regard 'publication' of their works in a large database anywhere near as prestigious as being published in one of the core journals, or by a leading book publisher? How will the publishers make their money particularly for serious or scholarly material? Will the consumer be prepared to pay for more remote document supply? Will there be a market for the authors' works? How will the cost of producing documents and the revenues from selling them be divided between the publishers and the authors? Will adequate safeguards be formulated for the protection of copyright when electronic documents can so easily be copied? In my view it is the economics of document supply which will really determine the way that document supply looks towards the year 2000. And most of the players in this economic world at present have no idea what will happen in eight years time!

In looking at the document supply scene towards the year 2000 I have painted an uncertain picture for the future of libraries. I do not want librarians and information specialists to become depressed by this picture. As documents and publishing change, so inevitably will libraries, but the role of librarians, archivists and documentalists will actually become even more important than it is now. Libraries have always of course been more than just

storehouses of documents. They are places of study, places giving access to information elsewhere, places where expert advice can be provided, places that can influence and shape the handling of information in the broader institutions of which they are part, they are places where the poor can learn and study, where the printed word censored in previous times or in other countries can provide inspiration for the creative spirit or for political and social change which will affect the world forever. Gorbachev said that if one wanted to criticise Marxism one should criticise the British Library, for it was in what is now the British Library Reading Room that Marx and Lenin spent many years developing and formulating their ideas.

During the rest of the 90's, libraries everywhere will continue trends which have already started in the field of document supply. The holdings of each library will become more widely known outside the individual institution. Easier access to the holdings of others will increase demand for document supply, and will be accompanied by more rationalisation of acquisitions between libraries. Large automated union catalogues will go hand in hand with the increasing automation of inter-library lending housekeeping processes. Remote bibliographic access will greatly improve the knowledge of the end user/consumer about what documents are useful and available. Remote document supply will grow substantially in volume and new providers will enter the market. Both the library and their customers will have a wide choice in where to go for their remote documents. National boundaries will become less and less significant in remote document supply, and readers and libraries in Portugal will think nothing of obtaining documents from USA, or Sweden, or the British Library Document Supply Centre. The choice of supplier will be made on the basis of quality and cost of service, and competition will improve the position of the customer.

Even if the electronic revolution takes place as quickly as I suggest, the importance of the librarian or archivist or documentalist will not be diminished. But we shall have to move from being store keepers to being experts on information and communication. We shall more and more be advising our customers on how to obtain documents and how to use the networks. We shall be evaluating and obtaining information for our customers, we shall be shaping the strategies for information and for information technology in our broader institutions, and through national and international collaboration we shall be ensuring that the interests of the consumer in terms of both short term and long term access to documents are properly protected. Where we work in the public sector, we shall be reflecting the interests of our publics, and of our governments, in providing access to the information-poor, and protecting freedom of speech and freedom of access to information on which all our futures depend.

The document supply system which will be in place in the year 2000 depends to a large extent on us. We must shape it. We must be informed by the needs of our customers, the potential of technology, the changes in publishing, and the economics of document supply. But we must strive to provide the system which gives our customers the best possible access to documents. The documents will change, will become more electronic and more multi-media, and their cost will change. The role of libraries will change, but our customers will change little. They will still want access to documents, access which is easy, efficient, fast, non-bureaucratic, of high quality, and providing value for money.

To put in place effective document supply systems for the year 2000, we as librarians or archivists or documentalists must work with our customers, explaining to them the

technological changes, the changes in the publishing process, the economic developments, ascertaining how these changes will affect the needs of our customers in the years ahead, persuading those of our customers who themselves are authors to think about the interests of readers and consumers, and to make our reader-customers understand the economics of writing. We must educate those who provide funds to our institutions about the massive changes which are taking place and which will continue to take place in publishing, technology and communications, so that they can invest sooner rather than later in the infrastructure which will be needed to provide effective access to documents in the late 1990's. Above all, we must work with each other, with libraries and archives and documentation centres in our own town or city or region, in our sector or in our country, in our continent or broader region, or across the world. We must develop a single voice, which will be heard and understood by politicians, educationalists, international organizations, and of course our customers, so that we are seen as being among the leaders in this new electronic information revolution, rather than being dragged along behind, managing from one crisis to another, bemoaning the rate of change, and looking back nostalgically to the days when our main task was to maintain silence and respect for the books, preferably books chained to the walls.

Finally, we must cooperate more effectively with publishers. The publishers are the other major player in the supply of documents. We and the publishers are the major intermediaries between the writer and the reader, the producer and the consumer of documents. It is in the interests of neither of us to spend the 1990's battling with one another. It is the publishers who ensure that the product of the writer's pen or computer is transformed into something which is widely accessible. It is the publisher who takes the financial risk as well as



sometimes making a large profit. It is the publisher who now exerts greater pressure on politicians and opinion formers than we do. There may be elements in publishers which are unattractive to us: I am sure the same is true the other way round. But as intermediaries between writer and reader, we must work together. We must resolve the technology and communications issues, we must resolve the copyright issue, we must press jointly for a greater understanding by politicians of the importance of documents in economic, cultural and scientific development. We must press jointly for greater investment in research, in the technological infrastructure for document supply, in libraries, in information technology, and in training, development and professionalisation.

As librarians, archivists and documentalists, we are often too meek, too self effacing and too self critical. The role we have to play will become crucial as the electronic information revolution rushes forward towards the year 2000. Document supply will be ever more vital, and ensuring that our customers have effective remote access to documents will be one of our key objectives. But we shall be far more than storekeepers, we shall be concentrating instead on providing access to documents and information. Our customers, who are both the consumers and producers of documents, will look to us as the experts who help them through into the next millenium. And the publishers, who have sometimes seen us as enemies rather than friends, will increasingly look to us as their strategic allies in asserting the continued importance of document supply for the spiritual and material development of our planet. We must rise to that challenge.

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