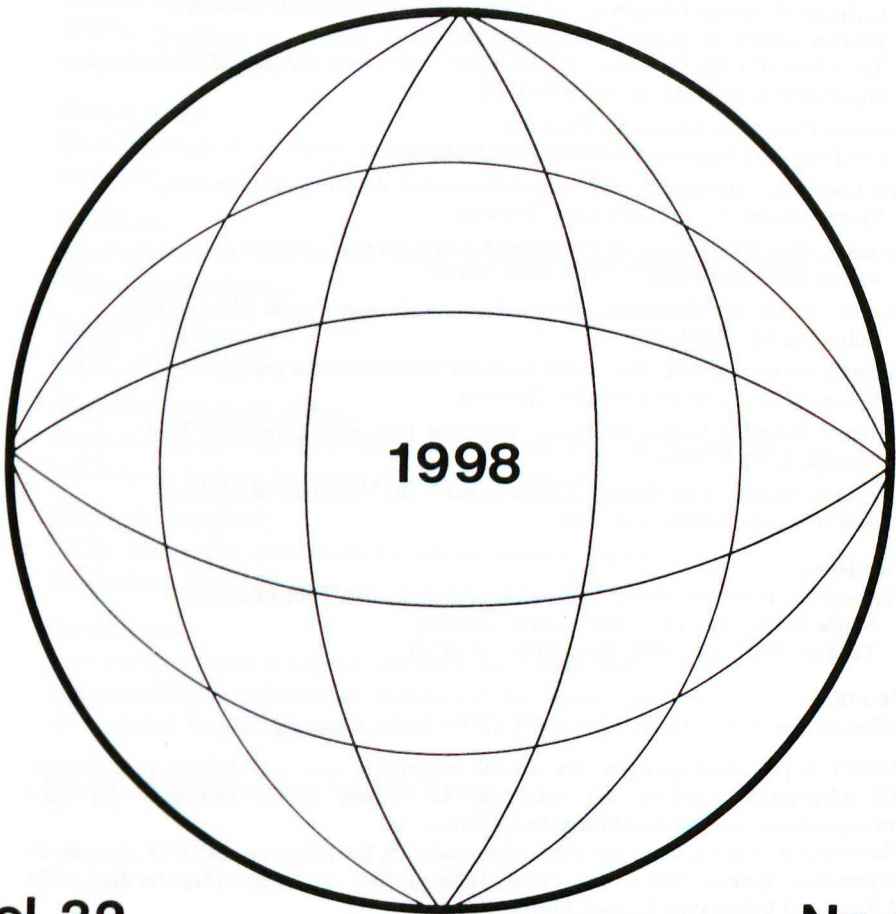


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## **THE CHANGING ECONOMIC MODEL OF SCHOLARLY PUBLISHING: UNCERTAINTY, COMPLEXITY AND MULTI-MEDIA SERIALS**

**By John Cox**

Scholarly publishing is undergoing a transformation that affects every participant in the information chain. Serials used to be a relatively uncomplicated activity, driven by the need of scholars and researchers to publish (see Fig 1). Until the 1980s, libraries found it possible to maintain coherent collections of the journals required to serve the teaching and research needs of their individual institutions, albeit at the expense of their monograph collections. Since that time, both journal price inflation and the growth in the number of journals and the numbers of papers published have outstripped the ability of even the most lavishly funded library to purchase what faculty and students demand. At the same time, modern technology has, in the last few years, offered us the opportunity to develop new media of distribution for scholarly literature: media that offer the researcher facilities and qualities that cannot be undertaken in the print medium.

There is a great deal of data to demonstrate that the number of papers has increased at roughly the same rate as expenditures on research and development in western economies (1). The number of papers published per scholar has remained level over the past twenty years; it is the number of scholars that has doubled. In the USA in 1975, 2.64 million scientists are estimated to have published 312,200 articles; in 1995, there were 5.74 million scientists and 577,100 published articles (2). Meanwhile, library expenditure has increased by less than half that rate. The broad funding outlook remains gloomy; for example, in the UK, student numbers have increased by 15 per cent in the three years up to 1996, but funding per student decreased by 30 per cent.

The geographical distribution of subscriptions has also changed. For many years after World War II, the major research libraries in the USA maintained complete collections of all the literature published in the field; they were a dependable and significant body of subscribers. In the mid-1970s this started to change. For most publishers, the USA has declined as a proportion of the total world market. While south-east Asia and western Europe have, until recently, been expanding markets, the decline in US library spending has removed a stable growth factor. Most

publishers now expect volatility: more cancellations or non-renewals, and more new subscription orders.

Suddenly our simple model has become more complex and uncertain. Change is relentless. The development of resource sharing means a single subscription where once there were many. Document delivery now provides a 'pay by the drink' model that potentially and fundamentally changes the pattern of income a publisher receives (*see Fig 2*). The number of papers seeking publication continues to rise relentlessly, causing information overload in even the most specialised areas of interest.

What has happened to the underlying costs of producing a journal? It is worth noting at the outset that paper, printing and distribution account for a small portion of the total subscription price. Between 60 and 70 per cent of the cost of publishing a journal is incurred in processes that are inescapable, regardless of the medium of output. Tenopir and King, in an excellent article in the *Journal of Scholarly Publishing* (2), analyse the factors that characterise our economic model:

- The average fixed cost of producing the first copy of an article is about US\$ 4,000, covering direct costs such as review and refereeing, editorial work, preparing illustrations and making the master copy (i.e. printing plates), and indirect costs such as subscription maintenance, marketing and author administration. Naturally, costs vary from one journal to another, depending on the subject and the complexity of the text.
- While price increases typically will result in reduced subscription numbers, a greater influence will be the size of the market served, being the readers interested in the information conveyed by specific journals.
- Publishers are, on average, publishing more articles and more issues per journal, and more pages per article. The average number of issues increased from 6.5 in 1975 to 8.3 in 1995, and total pages from 820 to 1723 in the same period.
- In the 1980s, there was a distinct shift from individual subscriptions to library-provided materials. Thus subscription numbers dropped, and the high fixed costs had to be spread over fewer, mainly library, subscriptions, thus increasing institutional prices at a rate greater than inflation and size increases alone explain.

To Tenopir and King's list, I would add the following:

- Editors' expenses are much higher than they were 20 years ago. Editors now need a personal computer, fax, e-mail facilities and an answering machine.
- Institutions that were once prepared to carry the cost of the editorial office and the secretarial assistance required are no longer so willing. Many require the publisher to pay the full cost of such facilities.
- Journal editors are increasingly unwilling to work for the love of it. They require payment in the form of editorial fees or, in some cases, a royalty on sales.
- Both commercial and non-profit publishers are under pressure to produce profits or surpluses for the journal owner, be it a learned society, a university or the company's shareholders. Many learned journals have in the past been published at a loss; support for such loss makers is increasingly difficult to find.
- New journals are launched only in response to the emergence of new areas of academic research. But they have to be financed from existing resources - i.e. from the revenues earned from existing titles. The risk for the publisher is considerable, with the accumulated loss on a new STM title reaching US\$ 150,000-200,000 by the end of the third year; it will not cover its accumulated investment till volume 6 (3). In the humanities and social sciences, the break-even may be achieved sooner, but still requires the original decision to invest for the future.

Publishers have compensated for the underlying cost increases they face, in an under-funded market, in various ways:

- They have tried to develop links with learned societies to sell more copies to individual society members at discounted prices, thus covering a portion of the fixed costs that have to be recovered;
- They have developed non-subscription revenues such as advertising, supplements and special editions sold to industrial or special interest groups, and licence revenue from document delivery services and CD-ROM publishers who reach markets that are unlikely to subscribe to the journal.
- Publishers have been putting more words on the page, by increasing the size of the page, reducing type sizes, using double column setting and narrower margins.
- Most important, the production systems used have been transformed by technology. Computerised typesetting and page layout software is commonplace. Journal articles are frequently submitted on disk; publishers apply their skills in quality management, presentation and layout to material

already in machine-readable form. The printed product may look traditional, but it has been output from a system that our forebears would find unrecognisable.

Nevertheless, journal prices have increased dramatically in the last three decades. Journals in the humanities and social science now average US\$ 185, in medicine US\$ 506 and in science and technology US\$ 902 (4). Overall, journals are 30 times more expensive in 1997 than they were in 1970. This represents an average annual increase of over 13 per cent. Clearly, the train has to hit the buffers some time.

Publishers have started to output their journals in electronic form, in response to vocal demands from librarians, many of whom clearly believe that technology holds the solution to the economic problems they face. When one examines the benefits and disbenefits of the electronic and printed media, the future is much less clear. From the financial point of view, electronic publishing eliminates paper, printing, binding, storage and transportation costs. Nevertheless, it is just as costly to employ highly skilled editorial and technical staff to prepare data for electronic publication as it is for paper-based publishing. There are no obvious cost savings on marketing, as users still have to be identified and reached with information about the product. Moreover, the technology requires heavy capital investment in computer equipment that needs to be renewed every eighteen months or two years.

There is also a marked ambivalence about electronic publishing in the academic community, that goes beyond a reluctance to learn how to use new technology. Academic readers are not yet using many electronic journals, whether they are free or on subscription, though most use the Web frequently. The power and rigour of searching secondary databases to identify literature to read is universally appreciated. When it comes to primary research literature, many academics are openly sceptical. They want to publish in print. Their reading will generally be done at home, using the printed word. Many social scientists go further, and decry the loss of authority and status that they believe is inherent in electronic publication. This has been described as the 'cartooning' effect: such material is not worthy of serious study because it comes in the same format as 'The Simpsons' or 'Beavis and Butthead', and is therefore to be treated with the same level of seriousness and attention. That publishers are reluctant to abandon print and embrace the new technologies wholeheartedly is a reflection of the concerns of their authors and editorial boards.

So we publishers proceed with caution. Nevertheless, publishing printed and on-line editions of journals in parallel represents the start of a process of developing

truly multi-media scholarly publishing, where the electronic edition of a journal paper may display features like video, sound, moving graphics and models, as well as interactive features, that the paper edition lacks. But the paper edition has the authenticity and permanence that the electronic version still appears to lack.

So both publishers and librarians are locked in to a multiple medium environment for the foreseeable future. The paper-based journal will survive, but electronic products, particularly material delivered over the Internet, will become more important, when and where the unique features of the medium become important in relation to the research to be reported. The problem is that publishers cannot see how they can publish the electronic version at a level that will cover the cost of peer review and of the multimedia and interactive features that will be needed to complement the article text and to exploit the unique capacity of the medium.

Electronic journals create the opportunity to provide a range of features of real value to working scholars:

- full reference retrieval;
- linked footnotes;
- complex figures converted into moving pictures;
- embedded links that are continually updated both forwards as well as backwards;
- direct access to the data on which the paper is based; and
- concept, or thesaurus-like, searches, which will require major developments in artificial intelligence.

The problem for publishers, librarians and academics is that the technology does not yet exist to enable publishers to produce, and universities and research establishments to use, all these features systematically. Moreover, the use of high technology effectively disenfranchises many countries who do not have the infrastructure, unreliable though it is, that blesses us in the developed world.

So where do we, as a community serving scholarship, go from here? In the USA, the Association of American Universities and the Association of Research Libraries published a report (5) which broke down scholarly information transfer into three models:

- the traditional 'classical' print-based model;
- the 'modernised' parallel publishing model; and
- the 'emergent' model that by-passes print that uses computing and telecommunications technology exclusively to create what is referred to as knowledge management systems called 'collaboratories'.



The AAU/ARL concluded that 50 per cent of scientific literature would still be in print by 2015, and that there would be no single dominant model for the foreseeable future (*see Fig 3*).

The principal issue facing publishers is how to maintain the viability of their activities, and the role they play in scholarly publishing. That role is especially important in relation to managing and certifying the quality of published output through the peer review process.

The principal issue facing librarians, it seems to me as a sympathetic publisher observer, is how do they meet faculty and student requirements for information in multiple formats that may involve significant support costs out of budgets that do not even keep pace with the cost of information in the traditional medium.

The environment is clearly ready for new business models. Some tentative steps have already been taken to develop new pricing and purchasing models, on two fronts:

- Publishers have begun to develop licensing schemes that provide extended access to their journal material, whether in print or electronic form, on terms that are intended to meet the teaching and research needs of the licensed institution, including copying for the reserve collection, use in course packs etc. Academic Press's *IDEAL* scheme is the best known. This provides extended access to the entire list electronically, and discounted rates for new or additional print subscriptions. For the publisher, it stabilises revenue. As these schemes tend to be priced with reference to current subscription rates, questions remain to be answered in relation to future prices and the incorporation of newly launched journals.
- Resource sharing has been developed into formal purchasing consortia, either on a membership basis like the Southern Universities Purchasing Consortium in the UK, or on a regional, state or even national basis. In the USA alone, there are now over 100 purchasing groups. One of the best known is OhioLink, which negotiates electronic licences for all the institutions in the state of Ohio.

Development of these new models is at an early stage, but do offer the prospect for both publishers and libraries of breaking out of the straight-jacket of the individual journal subscription price. Publishers need to be more flexible in meeting the legitimate demand for information they publish, especially if it involves broadening the circulation. Librarians need to concede that effective negotiation requires a centralised, well-briefed office with authority to negotiate on behalf of all the members of the institution or consortium. Both parties need to

recognise and articulate the legitimate concerns of the other in a way that implies a partnering rather than an adversarial relationship.

There is also an important role for intermediaries or aggregators in this scenario. My colleague Albert Prior will deal with this aspect information provision in greater detail. Suffice it to say that subscription agents have always provided an invaluable role in rationalising journal subscription ordering; it is entirely reasonable to assume that they will develop this activity by providing a single access point to electronic information from many publishers competing with different systems. The future is likely to involve more collegial methods of working together. How we do this will be a matter of controversy as well as innovation for many years to come.

## References

1. *Science and Engineering Indicators, 1991 edition, National Science Board. SCISEARCH data from ISI, 1975-91; R & D: Science & Engineering Indicators, 1991, National Science Board; Library Expenditure: Association of Research Libraries (ARL) Statistics.*
2. Carol Tenopir and Donald W King, 'Trends in Scientific Scholarly Journal Publishing in the United States', *Journal of Scholarly Publishing* vol. 28, no 3 (1997): pp 135-70
3. Page, Campbell & Meadows, *Journal Publishing*, Cambridge University Press, 1997, pp 326-332
4. Blackwell's Annual Periodical Prices for 1997, *The Library Association Record*, vol. 99, no 5, May 1997: prices converted from GBP (£) to USD (\$) at £1.00=US\$ 1.65.
5. *Reports of the AAU Task Forces*, Association of Research Libraries, 1994, pp 47-98

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## THE TRADITIONAL MODEL OF SCHOLARLY PUBLISHING

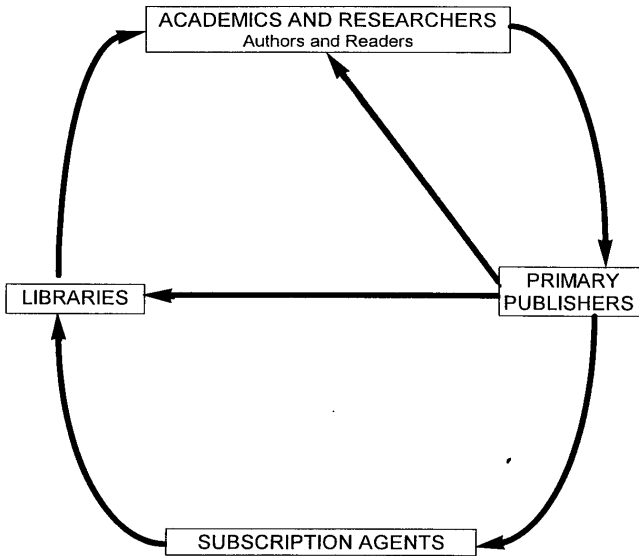


Fig 1

### THE '1980s' MODEL OF SCHOLARLY PUBLISHING

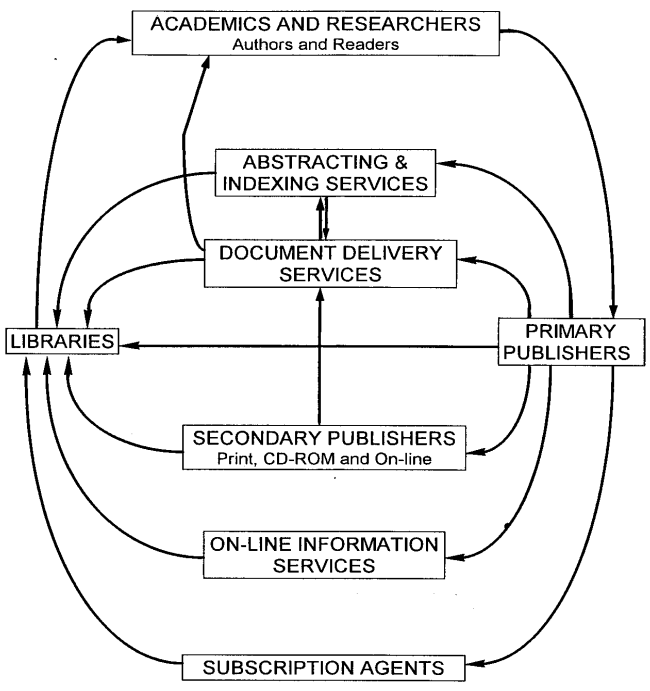


Fig 2

## THE NEW MODEL OF SCHOLARLY PUBLISHING

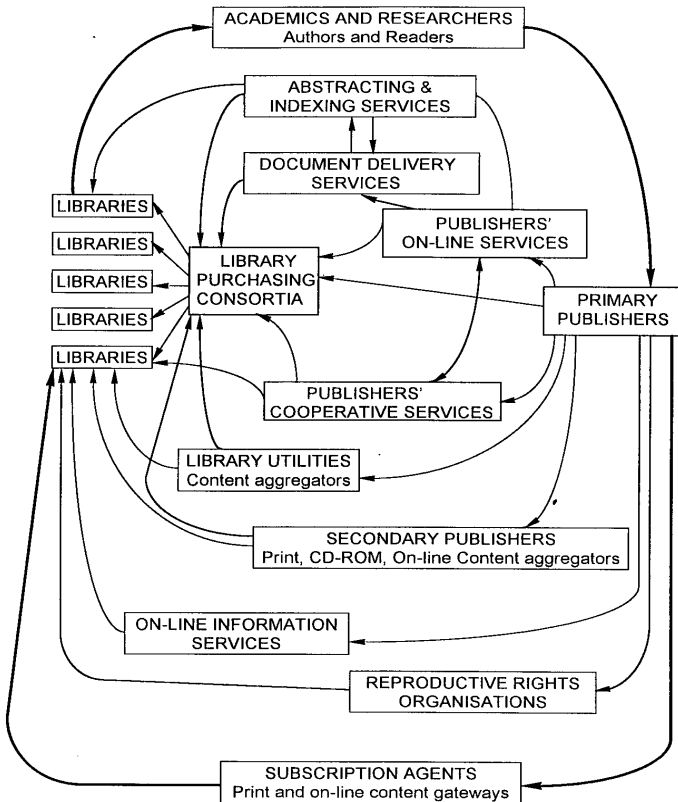


Fig 3

## **INTERMEDIARIES AND ELECTRONIC INFORMATION - WHAT ROLE FOR THE SUBSCRIPTION AGENT?\***

**By Albert Prior**

In the past the subscription agent's role has been based fundamentally on providing services to libraries in the acquisition and management of print journals. Agents are in the business of offering added value. With some exceptions, they are not owners of content. They exist to make things easier for their customers by acting as a link between publishers and libraries in the supply of subscriptions. Libraries use agents as a single source for ordering, paying, dealing with missing and damages issues, delivering journals and the agents have built up a wide range of additional services to support the core subscription service.

Global purchasing of print journals is large. The value of institutional journal subscriptions world-wide is in the region of \$2500 million. This is predominantly institutional buying by academic and research libraries, the main customers of subscription agents.

### **Who are the agents?**

The Association of Subscription Agents, which is UK based, but an international body, has some 32 members. Many of these however, provide a service only within their own countries or regions. The four major international subscription agents: Blackwell , Dawson/Faxon , Ebsco provide a global service, from offices in various countries and are generally significantly larger than the other agents.

Agents have been active in developing additional support services, over and above the core function of processing and maintaining annual subscriptions to journals. These include a wide range of information, invoicing and financial services as well as systems to improve the overall efficiency of their operations, along with online links to their databases, serials management software and specialist services for CD ROM titles, the first 'electronic' publications handled by agents.

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\* Paper delivered at the 63rd IFLA General Conference, Amsterdam, August 31- September 5, 1997

## **The growth of electronic journals**

Over the last two years electronic journal have moved from being experiments, with the launch by commercial publishers of electronic versions of existing commercial print titles. 'Electronic only' journals have had relatively little impact on subscription agents or library purchasing, generally being either free or directed at a very limited user groups.

## **How many electronic journals are there?**

In late 1996 the Association of Research Libraries in the USA published the 6th edition of The Directory of Electronic Journals, Newsletters and Academic Discussion Lists, the main reference work for serials available via the Internet. The Directory is a compilation of entries for over 3000 academic and professional discussion lists and 1688 electronic journals, newsletters and newsletter-digests - representing a 257% increase in journals and a 26% increase in lists since the 1995 edition.

## **Electronic journals - impact on agents' customers:**

Whilst electronic journals offer benefits for users, they have also resulted in administrative difficulties and challenges for libraries: dealing with each individual publisher to set up electronic access arrangements on behalf of users, to obtain passwords, to handle registration and license arrangements etc. Libraries are now looking for services to streamline and simplify access to electronic journals: single points for ordering, access, information and payment - intermediaries who can offer a comprehensive support service.

## **Electronic journals - features:**

Electronic journals also bring with them fundamentally different features or characteristics. For example, whilst no 'learning' is needed for users to handle print titles, electronic journals need some degree of training, equipment and some support. Publishers also exert more control over the use of electronic serials, compared with print, as they are rightly concerned about possibilities of security and unauthorised use of their data over networks or the Internet. Furthermore, in subscribing to electronic journals, the question arises as to whether a library is actually purchasing the journal or simply acquiring temporary access rights. New pricing models have also started to emerge for accessing electronic titles, including consortium based licensing

### **Agent's role in e-journals:**

Recently, agents have been developing major new services to address these issues - 'one stop shopping' or 'single sources' to provide access and ordering of Internet based serials. A broad range of functions have been built into these services with the aim of offering a simplified approach for libraries and users, including: single points of access and search engines for accessing a range of titles from multiple publishers; search and browsing options; simplified password administration; library management functions, usage data and email alerting services

### **How these services will develop:**

Agents' full text journals services are only now being launched by the major subscription agents, including Electronic Journal Navigator from Blackwell, SwetsNet from Swets, Information Quest from Dawson, whilst Ebsco has Ebscohost. They will continue to be developed both in content and functions. Increasing numbers of serials titles will of course be added as agreements are reached with individual publishers and as more content becomes available electronically from individual publishers. Services with only a few hundred titles at present, will become much more significant when they are offering many thousands of electronic journals.

They will increasingly link to secondary information databases, to offer end users seamless access to full texts from a range of resource discovery tools. Agents will also explore ways in which they can provide links between the articles and citations of the titles offered in their services. They will also define their position more clearly regarding longer term archiving, and access to, the growing volume of electronic serials information

### **New economics - site licensing:**

Most publishers are currently offering electronic journals on an annual subscription basis, often by way of a combined print and electronic price. The surcharge to acquire access to the electronic version can range between zero and 40 percent or so, but more common is a level of 10-15%.

A small but growing number of publishers are now offering electronic access to their products and titles by way of consortium based site licenses, or licenses for individual institutions. Under the terms of such licenses, authorised members of the institutions are often able to make unlimited local use of the electronic information, including for example the creation of electronic course packs, short loan reserve collections etc. As the numbers of these agreements grow, libraries



will increasingly be looking to subscription agents or other intermediaries to help in the administration and management, and possibly the negotiation, of these licenses. For example, agents will maintain up-to-date databases of publishers' options and prices; they will act as a liaison point for changes to the agreements (new titles, different members etc); they will make available individual publishers' license and handle renewals and electronic access arrangements.

Publishers can similarly benefit from shifting some of the routine administrative work of licensing to agents, in particular those tasks involved in direct communications with libraries and the consortia.

### **Transactional pricing**

Agents will also increasingly offer pay-per-view or transactional pricing at the article level, depending on arrangements negotiated with individual publishers. These options will be offered within the new electronic journals services they are developing. Users will be able to view and print individual articles on payment to the agent of an article fee, either by way of a deposit account, invoicing or credit card in due course. Publishers will set their own article prices, with agents adding their handling charges for the transaction. Such pay-per-view services will be increasingly possible, as growing numbers of publishers make their data available electronically. A number of publishers see this as an opportunity to offer electronic access to new markets, e.g. for those institutions which need only occasional articles from specific journals rather than annual subscriptions, whilst others have some concern about the possible impact on subscription levels.

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## **AT WHAT COST? ACCESS TO DIGITISED JOURNAL ARTICLES\***

**By Hazel Woodward and Paula Kingston**

### **Introduction**

Changes within higher education in the United Kingdom are leading libraries to explore electronic solutions in order to increase access to materials. In the UK between 1988/9 and 1992/3 there was a 57% increase in student numbers; projections to the year 2000 suggest that there will have been a 20% increase in full-time students and an 80% increase in part-time students over a 20 year period. Part-time students often require special provision, such as structured course packs, self-study guides, and out-of-hours access to study materials. Electronic access to study materials from home could make a major contribution to increasing their access to key material.

Project ACORN (Access to Course Readings via Networks) is funded by the Electronic Libraries Programme (eLib) and is investigating the setting up of an electronic short loan collection, focusing on high-demand journal articles on lecturers' reading lists. Project partners are Loughborough University, Leicester University and the international subscription agency Swets and Zeitlinger whose role is to obtain electronic copyright clearance and provide digital copies of journal articles.

The potential benefits of making material available electronically across the campus network are evident: multi-user access; multiple access points; twenty-four hour access; the ability for students to print off their own copy (where permitted under copyright agreements). While this all sounds very positive, there are a number of challenging technical, copyright and economic issues to be resolved in developing such systems. This paper will discuss all three issues and their relevance to the project but the main focus will be the economic issues for librarians, subscription agents and publishers in creating an electronic short loan collection.

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\* Paper delivered at the 63rd IFLA General Conference, Amsterdam, August 31- September 5, 1997

## **Short loan collections**

Traditionally short loan collections in academic libraries exist to provide access to students for high demand materials - both books and journals. For journals articles, librarians normally place a photocopy in their short loan collections. If the article is in a journal held by the library, this is very straightforward. If the library does not subscribe to the journal, then a cleared copy can be obtained from the British Library. The cost of this service is about £5.00 plus a fee to be paid to the publisher. These fees currently range from £4.20 for pre 1990 material and up to £10.00 for most other articles, although there are about 600 journal titles for which publishers have asked for a fee in excess of £10.00. It is worth noting, that apart from the cleared copy fee paid to the British Library, short loan services currently generate no income for publishers.

In order to provide digitised copies of high demand journal articles there is currently a need for a much longer lead in time; the project has demonstrated very clearly that a substantial amount of time is needed to gain copyright clearance (from individual publishers) and then to make an electronic copy of the article. Each of these two processes can be complex and time-consuming for the library and/ or for the intermediary.

## **Copyright clearance**

Copyright issues are a major preoccupation and publishers are viewing electronic copying as a potential new 'primary' market. They are therefore unwilling to licence these rights to a body such as the Copyright Licensing Agency (CLA) as they currently do for paper copying. Their concerns include document security, charging, and ensuring copyright compliance. The rights of authors, who may have signed these over before the advent of electronic dissemination, provide a further complication.

Project ACORN is working, in the first instance, with three departments within Loughborough University - Information and Library Studies, Geography and Human Sciences. 317 high-demand articles from 89 publishers were identified from the reading lists of these three departments. The date spread of the articles is from 1955 to 1996, the average number of pages is 15 per article and the number of articles requested per publisher ranges from one at the lowest to 37 at the highest. The level of permissions received is very encouraging - currently standing at 70% from 57 copyright owners. Reasons for the high number of permissions seem to be linked to a number of factors. Firstly, the involvement of Swets and Zeitlinger as the intermediary. This has had a very positive effect in that they are known and trusted by publishers and have been able to discuss issues

of concern with them. They also have a detailed knowledge of publisher contacts and were able to provide the project with an initial list of publisher contacts from their in-house database. Other reasons include: the sole emphasis on journal articles; the emphasis on working in partnership with publishers through a Heads of Agreement approach; and the undertaking to provide feedback to publishers on usage and user behaviour. Nevertheless, obtaining copyright permissions has proved to be an extremely time consuming, and therefore expensive, procedure. Costing of this activity is ongoing and details will be provided in the workshop presentation.

### **Requests for payment**

The majority of publishers agreed to participate in the project without making a charge for their articles, whilst a small number asked for payment. The range and types of payments requested clearly indicate the lack of consensus among publishers on what constitutes a reasonable charge for this type of service. Payments requested were as follows; 20c per page printed; \$1 per article printed; \$25 per page to mount the article; 2.5p (4c) per page printed; 5p (8c) per page, with advance payment for 10 printed articles and 5p (8c) per page for printing in excess of this; and, finally, £5.00 (\$8) per page to mount the article for a period of 2 years.

If publishers charge a rate for electronic copies beyond the reach of most library budgets, and beyond the means of students, then, in effect, there is no market for this type of activity. In order to set a fair price which the market can bear, a number of elements need to be taken into account, for example: does the library subscribe to the original copy? is digitisation required? does the author work in the institution? how many students on the course? how long is the article needed? Once further data has been collected, the project will calculate the overall cost to the library of providing an electronic copy compared with a paper copy.

### **Digitisation**

The project has opted to scan the documents into Portable Document Format (PDF), which is becoming accepted as a standard, and is a format commonly chosen by publishers for their own electronic products. A major advantage is that the Adobe Acrobat reader needed to view the articles is commonly found on campus networks and can be freely downloaded.

The process of digitisation has proved has proved problematic for a number of reasons. Firstly, it is important to work from a good, lean copy of the document

when scanning. Swets and Zeitlinger are undertaking the digitisation of articles and 30% of required articles were in their back sets department, thus providing access to a good 'clean' copy. Copies of articles not held by Swets were provided from Loughborough University's stock, but the quality of the original copies was often very poor as they had been extensively used by students. It was therefore necessary to acquire an interlibrary loan copy of many articles from the British Library, as these were of better quality.

There have also been problems with the version of the software Adobe Capture used in the project. These include characters and words not being recognised, and the erroneous boldening and italicising of text. In order to achieve the very high levels of accuracy required, it has become clear that large amounts of time need to be spent manually checking every document. Based on experience to date, it is estimated that the whole process, including preparation and cleaning up, scanning, OCR and proof reading requires 30 minutes per page. Even this does not guarantee 100% accuracy. A typical page has some 5,000 characters, so even with a success rate of 99.9% there will still be some 5 errors per page.

### **Future issues to be resolved**

There have been a number of attempts in the UK to bring about a consensus among publishers on their approach to handling requests for digitisation of their materials. The European Copyright Users' Platform has developed a number of Heads of Agreements for use in different circumstances. More recently the Joint Information Systems Committee (JISC) of the Higher Education Funding Councils has established a working group with the Publishers Association which is due to report in shortly. It appears that a lengthy standard licence agreement will emerge, containing a very wide range of clauses from which publishers will be able to select those they wish to apply in their particular circumstances. This may go some way to smoothing the process of obtaining permissions, but still leaves outstanding the issue of charges.

The role of an intermediary in this process could still be attractive for libraries, as the contacts and experience they bring will probably provide a speedier and more efficient approach to clearance. Project ACORN will be able to provide evidence in this area when it has requested permissions for the next academic year.

Finally, and most important, we need to know how students react to electronic readings, whether they use them or no, and whether they see real benefits in being able to access this type of service. Once this information has been gathered and

analysed then libraries and publishers can together explore a realistic pricing structure which can provide benefits to each other.

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## **JSTOR: BUILDING AN INTERNET ACCESSIBLE DIGITAL ARCHIVE OF RETROSPECTIVE JOURNALS.\***

**By Richard De Gennaro**

"No one in his right mind would do what you are proposing." That was the advice a prominent publisher gave William G. Bowen, President of the Andrew W. Mellon Foundation and founder of JSTOR, when he described the JSTOR concept to him in 1994.

History records many instances where significant breakthroughs were made by the naïve visionary on the periphery who does not know that what he is proposing "cannot be done." Bill Bowen had no idea how difficult it would be to bring his idea to fruition, but he was convinced that JSTOR would be a boon to scholars, publishers, and librarians. With the support of the Mellon Foundation he turned an impossible dream into it an idea whose time had come.

Originally a project of the Andrew W. Mellon Foundation, JSTOR is now an independent not-for-profit organization with a mission to help the scholarly community take advantage of advances in information technologies. JSTOR's initial objective is to develop a trusted archive of core scholarly journal literature, with an emphasis on the retrospective conversion of the entire backfiles of key journals. It is anticipated that in the future the objectives will be expanded and other related projects will be initiated.

In pursuing its mission, JSTOR is taking a system-wide approach, taking into account the needs of those involved in the field of scholarly communication: libraries, publishers, and individual scholars and students. This system-wide approach has required a willingness to reach compromise in order to accommodate the sometimes conflicting perspectives of JSTOR's constituents. Publishers needed terms that would preserve their copyright and their paper subscriptions. Librarians and publishers alike needed to define the limits of interlibrary loan, the definition of "authorized users" and the permitted use of

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\* Paper delivered at the 63rd IFLA General Conference, Amsterdam, August 31- September 5, 1997

JSTOR materials by those authorized users. With the resolution of these and other critical issues, JSTOR is now offering the first comprehensive collection of copyrighted retrospective journals in digital form to libraries and library users.<sup>1</sup>

JSTOR's principal goal during the coming three years is to create a comprehensive database of the complete back files of core journals in 10-15 fields in the humanities and social sciences. The page images are scanned and bit-mapped to preservation standards at 600 dpi. The text is also optically scanned and the product is manually upgraded to 99.95% accuracy. This ASCII text serves as an index to the contents of the journals. The tables-of-contents are keyed and provide a convenient means of browsing the journals. In order to protect the publishers paper subscriptions, there is a 3-5 year gap between the back file and the current year. Each year another volume will be added to the database and archive.

Agreements have been negotiated with the publishers of some 52 core journals – the first 22 of which are now accessible on the Internet to Charter Participants. The JSTOR collection is being actively marketed to libraries in the US and Canada. The pricing schedule is based on the Carnegie Classification of Institutions of Higher Education with some modifications. JSTOR is committed to making a minimum of 100 journal titles available by the year 2000 as Phase I of a continuing effort.

In recent years there has been a good deal of discussion and speculation about the feasibility and usefulness of digitizing large quantities of printed books and journals in library stacks. There are some who believe that it is technically and economically feasible and intellectually desirable to digitize "everything", and there are others who think that the value of retrospective materials is limited and would not justify the high cost of digitizing and maintaining them. JSTOR takes the middle way. .

The JSTOR project is based on the conviction that it is intellectually desirable and economically feasible to digitize, maintain, and distribute a carefully selected body of core journals and other retrospective resources provided that the cost can be shared among a very large number of libraries. And it is also assumed that the cost savings to participating libraries will more than offset the fees that they pay. The Andrew W. Mellon Foundation has made grants of over \$4 million to establish JSTOR with the expectation that JSTOR will become an on-going, self-

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<sup>1</sup> Consult the JSTOR website [www.jstor.org](http://www.jstor.org) for additional information about JSTOR including a list of titles completed and in progress, a pricing schedule, the library licensing agreement, a demonstration database, etc.



supporting, not-for-profit enterprise serving the needs of scholars, librarians, and publishers.

The JSTOR core journal collection is important to libraries for two reasons:

1. it greatly enhances user access, and
2. it provides significant savings in library space and operational costs. We will discuss them in sequence.

### **Enhanced User Access**

The jstor database is to a library's collection of journals what a library's catalog is to its collection of books and journals, but whereas the catalog merely points to the book or journal, JSTOR indexes every significant word or phrase and instantly delivers the text to the user's desktop and enables printing on demand. This is what makes JSTOR a transforming scholarly resource.

In this easily accessible electronic form these core journals will acquire an importance that they did not have as bound volumes in library stacks. The JSTOR database is becoming a new and vital library resource. With desktop access, users will mine the contents of these journals in ways and to an extent that was simply impossible and inconceivable with the bound volumes. In addition, the JSTOR archive is complete while many if not most of the paper sets in libraries are incomplete with missing and mutilated volumes and defaced pages.

Digitized information tends to be more useful and valuable than print information. Experience with card catalogs and electronic catalogs has shown that users will prefer the convenience of the electronic catalog and neglect the cards. The same will be true of those journals that have been "jstored;" they will be used in preference to those that are only available in bound volumes. The use and value of the back files of paper journals will diminish as the number of digitized journals increases. This is why JSTOR is being so careful in the selection of the titles to be included in the database.

### **Savings in the Cost of Library Space and Operations**

The JSTOR database meets preservation standards and faithfully replicates the contents of the journals including all advertising pages and membership lists, etc. But JSTOR is much more than a mere replication of the contents of the paper or microfilm copies of the original journals. As has been noted, the Internet-accessible JSTOR database is a totally new and unique research resource that will supersede the paper and microfilm sets of the journals it contains. To be sure, it is

essential that some major research libraries retain their bound sets of these journals for archival purposes, but most libraries could discard them or send them to secondary storage and free space in the bound journal stacks. Of course it may take some time for librarians and library users to gain enough experience with and confidence in JSTOR before taking this now seemingly drastic step. This decision will be much easier for that large number of libraries whose sets of these journals are largely scattered and incomplete.

JSTOR's original purpose was to save valuable stack space in libraries by substituting digitized versions of core journals for the bound sets that occupy large amounts of space in thousands of libraries. Saving space is still a major JSTOR goal and a compelling argument can be made for it if the cost of library space is viewed from an institutional perspective. Presidents, provosts, and chief financial officers are painfully aware of the cost of library space.<sup>2</sup> Because the cost of building and maintaining library space is usually not part of the library's operating budget, librarians have little incentive to factor the cost of space into their decision making. The cost of JSTOR will come out of the library budget, but the cost of the space it saves will accrue to the institution. Space is important to librarians because there is never enough, but they have little appreciation of its true cost. Space is still seen as a free good in most libraries, but there is some evidence of a trend toward charging space costs to library budgets. This has already happened at Harvard and a few other libraries.

Brian Hawkins, Vice President for Academic Planning and Administration at Brown University, has been questioning the financial viability of the traditional research library in a series of papers. He makes this sobering assessment in his most recent paper: "While the problems associated with the acquisition of new information are alarming, focusing on this set of costs masks the magnitude of the real problem. If we proceed with the library model as we have known it, the costs associated with storing and archiving the information will bankrupt our institutions of higher education."<sup>3</sup>

In the same paper Hawkins estimates the cost of physically housing a single volume at \$20, assuming new building costs at \$170 per square foot. In addition, he estimates annual maintenance costs at approximately \$1 per volume at Brown. Malcolm Getz in an unpublished 1994 study estimates the capital cost of construction of open shelf space at \$17.85 per volume.

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<sup>2</sup> Brian L. Hawkins, "The Unsustainability of the Traditional Library and the Threat to Higher Education," Paper presented at the Stanford Forum for Higher Education Futures, The Aspen Institute, Aspen Meadows, Colorado, October 18, 1996. 19p. (Available from the Author).

<sup>3</sup> Hawkins. p. 9

We estimated that there will be 6,400 volumes in the 100 titles in Phase 1. Using the standards in Leighton and Weber<sup>4</sup> they will occupy 61 single faced sections of shelving (at 15 volumes per shelf and 105 volumes per section). The 61 sections would occupy 568 square feet at 9.8 square feet per section. Assuming \$200 per square foot for new construction in 1996, it would cost \$113,600 to construct the space occupied by the JSTOR volumes plus \$1 per volume or \$6,400 year to maintain it.

The purpose of these crude estimates is merely to highlight the space issue and to give some idea of possible savings. JSTOR will be encouraging and sponsoring more detailed studies on the impact of JSTOR on space and other library costs.

This discussion is limited to space and building maintenance costs in a single library. There are other potential savings in library operational costs such as savings in binding, preservation, repairs, retrieval, and reshelving. When these potential cost savings for a single library are multiplied by the number of libraries in a consortium, a state, in the United States, or the world, the numbers are truly staggering. Add to this the "have not" libraries that could gain access to this rich resource for the first time through JSTOR. The Andrew W. Mellon Foundation has a strong commitment to supporting higher education internationally. Its global perspective on the value of JSTOR accounts for its keen interest in and generous funding for this pioneering initiative.

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<sup>4</sup> Metcalf, Keyes D., Second Edition by Leighton, Philip D. and Weber, David C. *Planning Academic and Research Library Buildings*, ALA, Chicago, 1985.p. 559 Table B.11, and p. 561, Table B.17.

# THE CHALLENGE OF OPENNESS AS EUROPEAN UNION INFORMATION GOES ELECTRONIC\*

By Neville Keery

**Abstract:** Paralleling the development of the information society, European Union institutions are making more and more information available electronically. The progress of this process is reviewed. It is a process which contributes to the openness of the EU institutions. How effective are electronic media in providing access to information? It is concluded that the journalistic and library professions will continue to play essential roles in enhancing openness for EU citizens.

## 1. Introduction

Openness and electronic information are both high profile topics within the European Union. They are often linked together whenever the relationship between European institutions and the citizens they serve is discussed and progress towards the realisation of the information society is under review.

A major difficulty in writing a conference paper covering these topics is that they are the focus of extraordinarily rapid change as policies develop and technology advances. This paper has to be submitted by 1 May 1997 for a conference session on 3 September 1997. Between those dates I confidently expect, for example, a re-organisation of the European Commission's Directorate General within which I serve, the Directorate General for Information, Communication, Culture and Audiovisual. This re-organisation of DG X will help to emphasise the current priorities given to information access and electronic and multimedia tools. On the wider political scene, and at the highest level of Union decision making, the conclusion of the present Inter-Governmental Conference on the revision of the European Union Treaty will certainly bring renewed interest in the meaning of European citizenship in an enlarging Union. Parallel with such organisational and political changes, a number of new electronic European information services will be seeking to prove themselves in the global market place.

In such a dynamic and evolving situation it is always best to begin from fixed reference points. For me the essential benchmarks are found early in 1994 and 1995. On 8 February 1994 the European Commission adopted a code of conduct

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covering public access to Commission and Council documents. The WWW server EUROPA was launched by the Commission a year later, in February 1995, on the occasion of the G7 Ministerial Conference on the information society held in Brussels. Virtually all subsequent discussion of openness within the Union has been about the intent and effectiveness of the code of conduct. EUROPA has developed into an inter-institutional website and its success has generated an important internal institutional process of reflection and discussion about the roles of the Internet and electronic information and their impact on information dissemination generally. The core of this paper must therefore be a progress report on the implementation and working of the code of conduct and on the availability of electronic information services.

## **2. The Code of Conduct Covering Public Access to Documents**

The general principle behind the code of conduct is that the public should have the widest possible access to documents held by the European Commission and the Council of the European Union, subject to public or private interests being protected.

In his preface to *“Access to Commission Documents: A Citizen’s Guide”* , published this year (ISBN 92-827-8315-4), the President of the Commission, Jacques Santer, writes:

“The policy of giving wider access to Commission documents has now been successfully practised for two years. The Commission intends to continue this policy and improve its application and to encourage European citizens further to exercise their rights under it”.

The fact that the number of requests for documents which have had to be treated formally by the Commission under the code of conduct procedures is surprisingly small (500 requests in 1996, 180 in 1994) is a tribute to the long-established and routine openness of the Commission. In addition to the volume of Commission material published and put on sale by the Office for Official Publications of the European Communities, notably the Official Journal, the Commission produces a wide range of free general information booklets and leaflets describing its objectives and policies. The free publications can usually be obtained by inquirers from Commission Representations in the Member States or Commission Delegations in non-Member States. Within the Union the Commission also supports an extensive network of information relays ready to respond to inquirers on a local or regional basis: Euro Info Points, the Rural Information Carrefours and the Local Urban Initiative Centres, for example.

Formal requests dealt with by the Commission under the code of conduct are therefore usually for internal documents, documents which have not been finalised or are not intended for publication. Anyone may request such a document regardless of his or her personal or professional status, and without having to give reasons for the request. A fee may be charged for documents supplied which run to more than 30 pages. Total charges must never exceed the cost price.

The grounds for refusing access to a document are clearly set out in the code of conduct and are applied on a case by case basis. They cover the following areas:

- (a) protection of the public interest (public security, international relations, monetary stability, legal proceedings, inspections and enquiries);
- (b) protection of the individual and of privacy;
- (c) protection of commercial and industrial secrecy;
- (d) protection of the financial interests of the Community;
- (e) protection of confidentiality if it has been requested by a supplier of information or, if the supplier is a Member State, because that country's legislation requires it;
- (f) protection of the confidentiality of the Commission's internal deliberations.

While the Commission's administration of the code of conduct has attracted little comment, the way in which the Council of the European Union interprets the exceptions to the right of access has been the subject of continuous press scrutiny, notably because of a case brought by John Carvel of the Guardian newspaper before the Court of First Instance of the European Communities, and the volume of requests and complaints submitted by Tony Bunyan of Statewatch magazine. The Information Group and the Committee of Permanent Representatives of the Council have developed procedures to meet all such requests in a way that responds to the different understandings and traditions of openness in the fifteen Member States. The Council's General Secretariat is also actively developing a public information programme.

### **3. Electronic Information Services**

Just as the latest guide to the code of conduct is a useful introduction to the current state of openness in the European Union, so the 1997 edition of the "European Union Database Directory" (ISBN 92-827-8305-7) signals the dramatic progress being made in making more and more EU information available electronically. Now subtitled "A Guide to Electronic Information Services", the Directory introduces over 50 on-line and CD-ROM databases, Internet-based services and document delivery services produced by the European Commission, the European Parliament and other Union institutions.

The trend towards using the Internet as a distribution channel has made a very significant impact on the evolution and development of electronic information services. CELEX, the database created in 1971 to provide a comprehensive and authoritative information source on European Community law, is becoming much more user-friendly. RAPID, the database of daily European Union news briefings is constantly extending its coverage and is now available on the EUROPA Web site. EUR-OP is market-testing its new document delivery service EUDOR which will allow customers to see the title and other basic information relating to any document published in the Official Journal of the European Communities and to order the document by post, fax or by electronic file transfer.

The success of the EUROPA Web site merits particular note. It is now well established as an inter-institutional site and offers a rapidly growing amount of updated information on all aspects of European integration. Its presentation and content are increasingly multilingual and it is among the world's most frequently visited sites with around 5m. hits per month. EUROPA complements the CORDIS Web initiative of 1994 launched to cover Community research and development programmes. Two other well updated Commission sites, I.M Europe covering the market in electronic information services, and ISPO on information society projects, help to remind us that access to electronic information is part of a pattern of change which is transforming society and offering new economic opportunities.

The addresses (URLs) of the three Commission Web services referred to here are:

**EUROPA:** <http://europa.eu.int>  
**I.M Europe:** <http://www.echo.lu>  
**CORDIS:** <http://www.cordis.lu>  
**ISPO:** <http://www.ispo.cec.be>

#### **4. The Challenges Ahead**

The reality of the European Union's commitment to openness and the dynamism of its engagement in electronic publishing and document delivery may be a matter of pride for the Commission's information professionals but there is no complacency about what is required to sustain this effort or the challenges posed by the information society.

One of the working definitions of openness which has emerged in the course of an inter-institutional review of editorial and publishing strategy is that the workings of the institutions should be as visible as possible to the people they serve and that European citizens have the right to know what exactly the institutions are doing and how and why they do it. To translate such an institutional attitude and

ambition into reality is much easier said than done. New technology will certainly be increasingly helpful but one must also be alert to the fact that change can sometimes have perverse effects and can put at risk levels of access and openness that have long taken for granted.

Let me give some examples. Electronic information is still only accessible to a privileged few. Access requires equipment, there are connection costs, and some training is required. Information on the Internet, which is often currently treated as if it were free, will cost more as the mechanisms of electronic charging become well-established. How public information should be priced is already an important question where print, database and CD-ROM media are concerned. Public libraries, which have long been the information reference points serving the least privileged in society, are finding it increasingly difficult to acquire the publications and equipment they need to maintain established standards of service.

The replacement of a print publication by an electronic one may thus mean less not more openness. The volume of information available electronically is also becoming a problem. Many of us feel we may become less informed rather than better informed because we find the screen version of a valued publication much less user-friendly than its print equivalent or we cannot afford the search time spent at a terminal to reach the page that used to arrive automatically in an in-tray. And then there is so much information available on-line it is often difficult to rate it in terms of relevance and quality. These are the symptoms of what we now call "information overload".

## **5. A Personal View**

The openness of European Union institutions has to continue to be a political imperative if the ongoing development of the Union is to have the support and understanding of its citizens. This imperative must find expression in the attitudes of institutional leaders and public servants. It also requires the vigilance and sensitivity essential to ensuring that new methods and new technologies enhance rather than detract from current best practice. Openness and information should never be taken on trust, whatever the goodwill of politicians and public servants. Public libraries and a free press have played key roles in the development of the concept of democracy which is at the heart of the European Union and which draws the countries of Eastern and Central Europe to seek membership of it.

I believe that the mass and complexity of information relating to the Union, which is bound to increase as integration advances and the Union enlarges, will make more and more demands on the professionalism and integrity of librarians and



journalists in the years ahead. Much of the value of print has come to us through well managed collections. The effective summarising and interpretation of complex data by an un-named journalist often does more to alert and inform citizens than the instant value judgement of a named editorialist. Such library and press skills often pass unnoticed. I consider them to be essential features of openness in any evolving society and believe they are likely to become more rather than less important in the years ahead, no matter how professional the information and communication services provided by institutions may be.

It seems appropriate to conclude by paying tribute to two Commission activities making important contributions to openness. The information Directorate-General has over many years supported training programmes for European journalists. The Libraries Programme of the Directorate General for Telecommunications, Information Market and Exploitation of Research (DG XIII) contributes significantly towards equipping the libraries and librarians of the future to put new technology at the service of readers and researchers.

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## **THE PARLIAMENT'S NEED FOR FREE ACCESS TO INFORMATION: POSSIBLE BARRIERS AND PRACTICAL SOLUTIONS\***

**By Rob Brian**

**Abstract:** Legislators require free and easy access to relevant, accurate, timely and impartial information if they are to accomplish the difficult tasks they have been elected to carry out. The main obstacle to this is a lack of adequate funding. Funding is required to attract highly qualified and competent staff - both librarians and researchers - and to purchase relevant library materials. Parliaments can also legislate for legal deposit of materials published in the Parliament's jurisdiction. Parliaments can legislate to give special copying rights to members of Parliament in the performance of their parliamentary duties. Finally, the Internet provides a ready and growing resource for relevant information that is available free of charge.

In modern democratic societies the Parliament represents the will of the people. At least, that is the ideal. One can argue interminably to what extent that ideal is actually achieved. We can all think of Parliaments that have the appearance of being democratically elected, but are in reality little more than dictatorships. And, of course, there are countries where the results of democratic elections are simply ignored and the chosen leader is put under house arrest. In those countries nothing of what I am going to say will have much meaning. The Parliaments that I will be dealing with in this paper are those that are elected through a democratic process and where all the Members, whether they form the Government or are part of the opposition, truly represent all their constituents.

Newt Gingrich, the Speaker of the House of Representatives in the US Congress, has written: In a post-industrial era, the legislator's job is beginning to change from an inside-fixer who solved personal problems for constituents, toward a student-teacher who works and educates to solve the nation's problems.<sup>1</sup> The modern legislator does have to look after her constituents, otherwise she is not likely to get re-elected. But the voters also expect their representatives to solve the

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\* Paper delivered at the 63rd IFLA General Conference, Amsterdam, August 31- September 5, 1997

<sup>1</sup> Newt Gingrich, 'On Leadership', Futurist, July 13, 1995.

likely to get re-elected. But the voters also expect their representatives to solve the nation's problems, indeed the world's problems. The American economist and international development expert, John Korten, has remarked: People around the world are learning through experience that the survival of democracy itself may depend on a massive change in attitude in Western societies about the appropriate rights, privileges and powers of corporate entities. And that requires access to information. Without ready access to accurate and reliable information the legislator is what we call in colloquial English 'a lame duck', i.e. seriously handicapped in carrying out the task to which they were elected.

The Parliament needs access to information to generate and maintain public support, for once the people lose confidence in the parliamentary institution the way is open to revolution and/or anarchy. Subject to policies relating to privacy and security, the Parliament pursues a number of goals, including the development and dissemination of information, building support for the political system, providing services to all constituents, and enacting policy decisions into law.

The problems facing the modern legislature are many and complex. It is often the problems that are too difficult for the private sector that are thrown into the lap of the Parliament. Without ready access to relevant information Members of Parliament have no hope of keeping up with the rapid changes our societies are undergoing, nor will they be able to make the right decisions. It is not surprising, therefore, that most modern Parliaments spend a considerable proportion of their budgets on parliamentary information and research services. Those Parliaments that do not are at a serious disadvantage.

The fundamental barrier to a Parliament having access to information is a lack of adequate resources. Without adequate funding it will not be possible to attract qualified librarians and researchers to undertake the research that is necessary to deliver to the Members of Parliament information that is relevant, accurate, timely and impartial. A democratically elected Parliament deserves the best possible staff, because the people deserve the best possible parliamentary government. It may be necessary to offer somewhat higher salaries than the norm to attract highly qualified, dedicated staff. It may also be necessary to provide opportunities for ongoing training and development. In my own Parliament, for example, we encourage our research officers, who already possess one or more relevant degrees, to pursue higher degrees. The Library pays their course fees for Masters' degrees, each time a subject has been successfully completed, provided, of course, the higher degree is relevant to the research needs of the Parliament. Our environmental expert, for example, is pursuing a Master's degree in

Environmental Law. Our Senior Research Officer with a PhD in Political Science has just completed a Bachelor of Laws degree with First Class Honours. We have no doubt that this is money well-spent. The projects that these people undertake for their course are invariably such that they can also produce a relevant Briefing Paper or Background Paper for the Parliament. It is a win/win situation.

We also encourage our professional staff to attend relevant continuing education courses and conferences so that they remain up-to-date with the latest developments in their areas of expertise. We strive to maintain a staff training and development budget of \$25,000 per year in a total allocation of some \$2.2 million. Where such courses or conferences are held in Parliament House by other professional groups we try to secure some free places.

Of course, no matter how highly qualified staff may be they need access to a vast amount of relevant information whether it be held in-house or elsewhere. Again, it will depend on the size of the allocation for the purchase of library materials, as well as on the expertise of those who do the selecting of those materials, how good the in-house collection will turn out to be. But there are a few things that Parliaments can do fairly easily to ensure the supply of the most needed information.

Parliaments are able to enact Legal Deposit legislation.<sup>2</sup> In New South Wales the Parliament made provision for this by amending the New South Wales Copyright Act 1879 in 1952. In his second reading speech the Minister assisting the Premier stated:

The object of this bill is to provide that a copy of every book first published in New South Wales shall be supplied by the publisher free of charge to the Parliamentary Library of New South Wales ... within two months of publication.<sup>3</sup>

Similar provisions existed in Queensland and in South Australia, although those provisions now exist under Library Acts, rather than Copyright Acts. The Minister went on to say:

The cost to the publishers of complying with the provisions of this measure will not be great and the advantages that will accrue to the Parliamentary Library will be fully appreciated by honourable members.<sup>4</sup>

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<sup>2</sup> See J. Lunn, 'Study on a model law for legal deposit', COMLA Newsletter, 1978 August, No 21, p 49ff.

<sup>3</sup> New South Wales Parliamentary Debates, 12 March, 1952, p 5304.

<sup>4</sup> Ibid, pp 5304-5.

The justification of this legal deposit provision was based on the need for Members of Parliament to have ready access to local publications in order to be able to answer queries from constituents over a whole range of subjects and, one assumes, to assist in informed parliamentary debate. As one speaker said:

The library of Parliament was established so that the representatives of the people could be fully informed on all matters affecting their constituents. Obviously it follows ... that honourable members should have ready access at all times to whatever information is provided in printed form.<sup>5</sup>

We have been fortunate in New South Wales in so far as most books published in Australia are, in fact, published in Sydney. As a consequence most of our Australian legal collection is received free of charge.

A weakness in the legislation is the reference to 'printed' material in its strict physical sense as the sole medium for information. This has obviously become a glaring anachronism. The definition of 'book' in the legislation would exclude sound and visual recordings and electronic information products, such as microforms, computer disks, CD-ROMs, including audiovisual/multimedia products, and on-line databases. Other Australian States, such as Tasmania, Victoria, Queensland and South Australia, have tried to broaden the definition of 'publication' to include microforms, audio-visual material, and CD-ROMs. It is doubtful, however, that any of those definitions will be found by a court of law to include information published via on-line databases.<sup>6</sup> Despite these difficulties in drafting comprehensive legal deposit legislation, this is a valuable way to ensure that the Parliament has free access to important information.

The Copyright Law can be a significant barrier to Members of Parliament having free access to relevant information. In Australia we are fortunate that the *Copyright Act 1968* (Commonwealth) makes special provision for the needs of infringement for copying done for members of the Parliament to which the library is attached.

The Parliamentary Librarian may authorise another person to make copies on behalf of the Parliamentary Library for the use of a Member of Parliament. I have done this recently to enable officers of the Ethnic Affairs Commission of New South Wales to make copies of translated summaries of relevant newspaper

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<sup>5</sup> Ibid, p 5309.

<sup>6</sup> For a full discussion of the issue of Legal Deposit and what would be required in the definition of 'publication' to capture on-line information, see the article by Vicki Mullen in APLA Newsletter, No. 13, May, 1995, pp 11-20. When she wrote this article Vicki Mullen was a Research Officer in the New South Wales Parliamentary Library. She has since taken up a position on the staff of the Legislative Council, the Upper House of the New South Wales Legislature.

Parliamentarians. Sections 48A<sup>7</sup> and 104A<sup>8</sup> exempt Parliamentary libraries from articles in the ethnic press, so that Members can become aware of the political issues that concern non-English speaking communities.

The Copyright Law Review Committee is currently working to try and simplify the rather complicated copyright law. Parliamentary Librarians have submitted to the Committee, not only that these provisions for Parliamentary Libraries should be retained, but that they should be extended to include electronic copying. No one appears to have suggested that these special provisions for members of Parliament should be removed. It seems to me that any country could insert similar provisions in its copyright law to enable members of Parliament to have free and easy access to required information.

Finally, there is a huge resource of free information available on the Internet. The only obstacle there is a possible lack of a personal computer, a printer, a modem, a telephone line, and a service provider. Provided one is able to obtain funding for these basic necessities, at a cost of between \$5,000 and \$10,000, it is possible to gain ready and free access to a vast amount of useful and relevant information. In the United States all officially published information is in the public domain, which means that it may be copied freely, republished, and so on. In Australia we have what is called 'Crown copyright', which means that the Government retains the copyright in officially published information. However, increasingly Governments are prepared to waive their copyright. In New South Wales legislation and law reports (or court judgements) may be freely copied and reproduced. These are now available on the Internet. Many jurisdictions have done the same.

A good place to start looking for information relevant to Parliaments is the Section's homepage at [<http://www.citec.com.au/iflaparl/>], which is being maintained by Nick Bannenberg, the Parliamentary Librarian of the Queensland Parliament. This site provides many useful links to other sources of information, such as the New South Wales Parliamentary Library's home page at [<http://www.parliament.nsw.gov.au/gi/library/liblinks.html>]. No doubt, other

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<sup>7</sup> *Copying by Parliamentary libraries for members of Parliament* The copyright in a work is not infringed by anything done, for the sole purpose of assisting a person who is a member of a Parliament in the performance of the person's duties as such a member, by an authorized officer of a library, being a library the principal purpose of which is to provide library services for members of that Parliament.

<sup>8</sup> *Acts done by Parliamentary libraries for members of Parliament* A copyright subsisting by virtue of this Part [i.e. subject matter other than works] is not infringed by anything done, for the sole purpose of assisting a person who is a member of a Parliament in the performance of the person's duties as such a member, by an authorized officer of a library, being a library the principal purpose of which is to provide library services for members of that Parliament.

experienced users will have their own favourite starting point. We have provided the following links on our front page:

Links by Category to Internet Resources used by the Library

- **Internet Search Tools** used by the New South Wales Parliamentary Library.
- Politics and Government resources: **Federal, State** and **International** Links to political parties, Federal and State Governments, Election information, Australian and International Government Agencies, The British Monarchy, etc.
- Parliaments and the Executive: **Australian** and **International** Links to Australian and Overseas Parliaments and Legislatures, Parliamentary Affairs and Executive Government.
- **Current Hot issues** Currently includes the United Kingdom Election, Wik judgment<sup>9</sup>, euthanasia, the Commonwealth [of Australia] Budget, gun control, Western Australian Election results<sup>10</sup>, the 2000 Olympics and Internet censorship.
- Law and Legislation resources: **Australian** and **International** Law resources including Commonwealth, State and overseas legislation, Australasian Legal Information Institute, etc.
- General Information resources: **Australia** and **International** Includes resources such as the World factbooks, Australian general reference info, phone books, Australian Bureau of Statistics, Internet Glossary, etc.
- **News based resources** Includes the Sydney Morning Herald site, the Australian, Australian Broadcasting Corporation, CNN, Reuters Online, The Times, etc.
- **Other library services and resources** Australian Parliamentary Library, National Library of Australia, Australian National University, State Library of New South Wales, etc.

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<sup>9</sup> The Wik Peoples v The State of Queensland & Ors; The Thayorre People v The State of Queensland & Ors. This is the judgement relating to native land rights. The High Court of Australia decided that native land title was not extinguished by pastoral leases granted after white settlement, but rather that the two co-exist. The judgement is the subject of heated debate between pastoralists and Aborigines. The Prime Minister, John Howard, currently has a ten-point plan to resolve the difficult issue. The judgement can be found at: [[http://www.austlii.edu.au/au/cases/cth/high\\_ct/unrep299.html](http://www.austlii.edu.au/au/cases/cth/high_ct/unrep299.html)].

<sup>10</sup> The State of Western Australia had its State Election on 14 December 1996 with the following results: Liberal/National Party Coalition 62% of the seats; Labor Party 33%; and Independents 5%. Details of the election can be found at: [<http://www.waec.wa.gov.au/96results.htm>].

The links from this site lead to legal, political, parliamentary, and other information around the world. And, of course, it is of vital importance to all of us that we try to persuade our various legislatures to make their publications freely available on the Internet, so that we all have the opportunity to access this material free of charge. Some Parliaments think that they can make a healthy profit by charging for access to their materials on the Internet. In my view this is very short-sighted. The cost of publishing material on the Internet is almost nil compared to the cost of paper, printing, binding, postage, handling of invoices, and so on. So by publishing on the Internet Parliaments and Governments will, in any case, be saving considerable amounts of money. Since the materials are produced at the expense of the taxpayers, it should not be necessary to charge those taxpayers again for access to these materials.

The other side of this coin is, of course, that all citizens should have a ready opportunity to access these materials. In Australia most politicians will have access to the Internet. Governments are also making computers and Internet access available in schools and in public libraries. A well-informed electorate is more likely to elect a good Government. Well-informed legislators are more likely to enact sound legislation. There are barriers to ensuring free access to information, but these barriers are not insuperable. As Parliamentary Librarians we have a duty, indeed, a mission, to work towards achieving a society where all, citizens and those who have been elected to represent them, have ready and free access to relevant, accurate, timely and impartial information.

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# **PUBLIC ADMINISTRATION - PUBLIC KNOWLEDGE\***

**By Tuula H. Laaksovirta**

**Abstract:** A strong emphasis on publicity in all decision making in the Nordic countries is a deep cultural and historical fact. The basis for this was created in 1763, and it is now more valid than ever. The citizens can and are supposed to control power elites through publicity.

Various types of organisation favour different means of communication. Communication in bureaucratic organisations is different from that in a net or in a matrix organisation. To disseminate enlightenment knowledge differs from the dissemination of instrumental knowledge; both are necessary for decision making. Without understanding about the use of knowledge the communication organisation is watering the Sahara. In spite of huge amounts of knowledge, the soil remains dry.

The professional practice of information specialists and librarians reflects their understanding of publicity and knowledge. Examples from Finland will be presented in the paper.

“The future is not inevitable. We can influence it, if we know what we want it to be” (Handy C. The age of Unreason 1989)

## **1. Nordic democracy and public knowledge from historical point of view.**

Strong emphasis on publicity in all decision making is in the Nordic countries a deep cultural and historical fact. The basis for this was created more than two hundred years ago. In Sweden, Finland was at that time part of Sweden, the freedom of press act was the first in the world - given in 1766. The starting point of the Act was, that citizens can and are supposed to control the power elites through publicity. The publicity of parliamentary documents is connected with this fight of citizens to know and influence the decisions. The citizens can and are supposed to control power elites through publicity. As early as in 1908 nine years before Finland gained independence libraries got the right to get this type of material free of charge to guarantee that the right to know will be fulfilled.

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\* Paper delivered at the 63rd IFLA General Conference, Amsterdam, August 31- September 5, 1997

Nowadays the content of the Nordic democracy is more and more labelled by the idea of a citizens society.

A citizens' society is a society that is regarded as legitimate by citizens who possess all rights therein. It is this aspect regarding society as legitimate - that keeps up a large number of autonomous institutions (independent) and organisations like schools and libraries.

First and foremost, a citizens' society is a society where the status of citizen is common. The status of citizen includes certain basic rights, such as equality before the law, the right to vote, the right to social security, the right to education and the right to knowledge.

The concept of citizen enables the elimination of one apparent dichotomy, the dichotomy between positive and negative freedom. Negative freedom means freedom from some obligations, whereas positive freedom means an attempt to define the contents of a person's life - what life should be like. The individual has opportunities to make life look like their own life. They have similar possibilities to get knowledge. It leaves open whether people use their freedom or not.

On the other hand, citizens are required to behave responsibly, to take responsibility. Our democratic process requires that citizens have an insight into society's affairs at both state and municipal levels. People are supposed to influence and take part in society in different ways: by elections, by acting, by educating themselves, etc. All this needs the practical, the real possibility of getting information and cultural products according to individual needs. This is solved by free access to both public and scientific libraries. Public libraries nowadays carry minutes of the municipal bodies as well as information on local environmental questions and other matters of public interest. And of course novels, films and music records. And, for instance, the Parliament and the Parliament Library in Finland provide, within 24 hours after decisions are made, the content of those decisions on the Internet. At this time in Finland, most libraries have Internet connections.

## **2. Decision making and knowledge**

Various types of organisations favour different means of communication. Communication in a bureaucratic organisation is different from that in a net or in a matrix organisation. To disseminate enlightenment knowledge differs from the dissemination of instrumental knowledge; both are necessary for decision making.

Since the 1960's, instrumental knowledge especially is easy to disseminate. Instrumental knowledge is often presented in simple numeric form, as so called

facts. In the dissemination of this kind of information, the new technology is especially useful and in this area there is a large potential for self-service.

The dissemination of enlightenment knowledge sets demanding requirements for information specialists. This means, that e.g. from numerical data, various analyses must be made. And different types of information should be analysed and reformed by intellectual work into knowledge. Useful tips are an in example of this. This type of knowledge does not necessarily aim at direct application but it is necessary for understanding causal relationships and for evaluation of the direction and the consequences of decision making.

### **3. Right to know - but whose and why**

Without understanding about the use of knowledge, the communication organisation is watering the Sahara. In spite of huge amounts of knowledge, the soil remains dry.

Civil servants, who know why it is important to inform citizens, disseminate information. Information specialists, who know why information is so important for a proper functioning of a society, disseminate information, proud of their profession. Finally the users of information that know their right to knowledge want information and are able to use it.

In the Nordic countries, both public and scientific libraries are publicly funded. Both public and scientific libraries are open for everybody. This is the Nordic model for libraries. A vital principle is that scientific libraries, as well as other libraries, are open to everybody, not only for university staff or students. One does not need any recommendations to be a user of a scientific library. Private collections and private libraries have no significance in the overall policy. In Finland we have altogether 1,312 libraries, and only 5 million people. In other words, about 3,800 people have one library. Not too bad at all for fulfilling the right to know. The slogan is not sufficient, one has to have real possibilities of obtaining material.

Everyone has to have the equal possibility to use libraries which are full of knowledge. If you do not have this possibility you are unable to be the master of your life and to be a citizen with rights and responsibilities. You can not follow the laws, you can not influence on the content of the law, you can not criticise the law, if you do not know the law. Democratic society and citizens are unable to act without freedom of knowledge without freedom to know.

Public libraries and scientific libraries have very close contacts with each others in Nordic countries. This co-operation has a very long tradition. For almost 60 years

we have had this network. In other words, we had a functioning network long before the concept of network as it is understood today.

#### **4. Two examples**

##### **A. The decision making and working of Parliament**

The decision making and working of Parliament is recorded in the parliamentary documents. The library of Parliament has been responsible for the general availability of the documents and for giving information on parliamentary business since the beginning of the century as was mentioned above. From December 1995 this information has also been provided via the Internet. The first form of dissemination was paper, then microfilms and now electronic dissemination. The information about parliamentary business on the Internet comprises:

- parliamentary documents in full text since 1991, covering government bills, committee reports and statements, written and oral questions, and private members bills. Information retrieval by the title of the item or by free terms. Retrievals can also be made by the name of the MP.
- debates of plenary sittings since 1994. Search by the name of the MP or by free terms.
- references to parliamentary procedures since 1989. The progress of a Government bill, a motion or a question can be followed by searching the item titles of parliamentary matters, by subject headings, or by a given date on the screen . The procedure screen links to the full text screens of the item in question, even covering the speeches of the members and the responses of Parliament.
- the voting behaviour of an MP in a given matter since 1996: the positive, negative or abstaining response of an MP, as well as the government and the opposition. Votes by parties, sexes or electoral districts is also given. Links to voting behaviour open up from the parliamentary procedure screen.

The Internet database also give personal data of the MPs elected in the latest general election. The personal data screen links to the speeches of the MP in the plenary sittings, to the initiatives and questions.

##### **B. Valtipa - Network**

A few words now about the network of information management for the Council of State, Parliament and National Archive. All the information management personnel of the ministries, Parliament's library and National Archives are

involved in the Valtipa. All professional groups such as archivists, librarians, information specialists, information service secretaries and information service managers are represented. The areas of co-operation are:

- organisation of the common information environment of the Council of State
- promotion of the common use of the information resources by using common rules
- development and maintenance of self-services and network services
- development of the standards and working methods of records management
- development of common information systems
- joint procurement, e.g. books, magazines, CD-ROM products, hardware and software
- data bank agreements
- development of new services and
- training.

A Valtipa brochure is available.

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# **LOCAL AND GLOBAL NETWORKS IN PRACTICE: A CASE STUDY BY THE INFORMATION AND LIBRARY SERVICE, MINISTRY OF FINANCE, LJUBLJANA\***

**By Violetta Bottazzo, B.A. Soz.,**

**Abstract:** The author presents a description of the establishment and installation of the Information and Library Service computer network of the ministry of Finance and places it in a context of library standards, the existing information system, the information infrastructure and connections with other databases and networks in Slovenia. She also speaks about the use of the local network which enables access to information and library services provided by the global network.

**Key words:** information system, information infrastructure, local network, global network

## **1. Introduction**

In the Ministry of Finance there has never been any specialised library or documentation centre. The present information and Library Service began to operate in 1994. It was established on the basis of the then existing "library". In the beginning, the service was limited to subscribing to newspapers and magazines, and lending Official Journals of Slovenia.

After the independence of Slovenia, numerous changes overcame the whole country on several levels and spheres of activity. They as well influenced the organisation of the government administration and its bodies, due to which new and different objectives had to be set up. Faced with changing and expanding trends of the administration that had been traditionally awkward and bureaucratic has enabled the Ministry of Finance to advance new solutions based on high technology. The ability to recognise and respond to the needs of the ministry was a great challenge.

First of all, it was recognised that one of the most important tasks within the Ministry of Finance is to provide effective, qualitative and cost-effective sources of information of both domestic and foreign origin. For that reason it was decided that further development of the Information - Library Service should be supported by the establishment of a virtual library.

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\* Paper delivered at the 63rd IFLA General Conference, Amsterdam, August 31- September 5, 1997

## 2. Why a Virtual Library?

In the 1996 the Ministry of Finance established a virtual library, intended mainly for providing information by means of local and global computer networks. The main reasons were:

1. room limitation
2. existing information system
3. existing information infrastructure
4. new trends in collecting and distributing information
5. financial reasons

### *Ad 2.1 Room limitation*

The Information Library Service is located on the ground floor of the Ministry of Finance main building in Dupaneieeva 3, Ljubljana. It consists of one room of approximately 25 m<sup>2</sup>, which is not enough for providing information and library service to the whole ministry effectively. Open access to the library material especially monographs, is almost impossible. Book shelves are full of serial publications which seem to be stored there rather than being at the users disposal for reviewing and lending. The office equipment is old and does not fit modern standards of book shelves. Readers and users share two chairs and one desk which because to the lack of space are often full of material and other documentation.

### *Ad 2.2 Existing information system*

The Ministry of Finance manages a computer network which enables local exchange of data and global reviewing of different databases. Most users are connected to the local computer network, which enables exchange and transmission of information. One of the most important systems operating within the network is e-mail. Furthermore, the local computer network enables simultaneous use of program packages, databases and other network sources. Users connected to the network use mostly network printers - more personal computers are attached to another printer.

Offices of the Ministry of Finance are located in several different buildings. By means of collecting and distributing information through the local computer network, the ministry, however, effectively centralises operations between the head office and its other units. On the other hand, the same system enables decentralisation of highly specialised units of the ministry.

The use of e-mail has become very popular, especially for sending information of a general type. By means of e-mail it is possible to get daily abstracts of articles released by the Slovenian Press Agency, education information, library news.

Internet advice, business information, foreign exchange rates, etc. Through the network the Ministry of Finance has access to other parts of the government administration. By means of ARNES, however, it has access to the Internet.

#### *Ad 2.3 Existing information infrastructure*

The Ministry of Finance has available a relatively highly sophisticated, up to date technology which has enabled the development of a modern information system, new program packages, communication ways, controls and connections with other networks. Most databases created by the ministry contain classified and strictly confidential documents. All “critical” data are copied and stored securely. Dedicated servers (file, communication and print servers) provide for the exchange of files and data as well as for simultaneous use of peripheral units, which allow a user to access another computer’s files and peripherals over a network as if they were local resources. The present configuration enables effective control of access to servers which permit a great number of personal computers to be connected to the network. The network administrator controls the entire procedure, assigns rights of access to individual servers, and supervises insertion and transmission of data into and out of the network. One of the most important tasks of the network administrator is to provide protection against computer viruses.

All users have personal computers. The Information - Library Service has three computers, all of which are connected to the local and the global computer network. Recently, it has been assigned access to the Internet which, however, is not a general practice in the ministry. Access to the Internet is normally assigned on an individual basis.

Most printers available are network printers, which means that printers attached to the print server can be used by any user connected to the network. The Information - Library Service has one printer attached to the local as well as to the global network, which allows printing of data from either network.

#### *Ad 2.4 New Trends in collecting and distributing information*

Since the late eighties, the field of processing and managing information has been continuously changing. Driven by technological development it has achieved significant progress. Nevertheless, the speed at which further development is expected in future is even increasing. It is true, however, when experts declare that computers can do far more than is usually demanded of them.

Among recent major development in this field is the integration of information processing into the electronic information environment. Further development of



this area will require new solutions, especially in the field of (IT) Information Technology. Information professionals will have to collaborate closely with IT experts, set up new strategies, improve their knowledge of IT and obtain further education.

As far as establishment and development of a virtual library is concerned, information technology solutions are the most important foundation on which this service is building up its function. This refers mostly to electronic storage and secure data management, network communication technology, electronic media, etc. In addition, electronic systems may bring numerous benefits regarding professional, operational and strategic opportunities, time limitations and target transmission of information.

#### *Ad 2.5 Financial reasons*

After thorough research, the Ministry of Finance decided to develop its own information system as well as an adequate back-up support (information infrastructure). It also began looking for a local area network to produce a system for the main offices as a first step towards automating processes.

The establishment of the Information - Library Service was a real challenge. The main task of the project was to bring the existing library into line with current library science standards.

The instalment of the network and the choice of program packages was subject to limited financial resources. The global computer network, as a matter of fact, may provide expensive as well as more publicly accessible, cheaper sources of information. Our main interest was to find an optimal solution; to buy the best program packages possible at the lowest cost. It is important to say that the concern for secure data management, as most data are strictly confidential, was considered very carefully and set in the first place.

### **3. Information and Library Service in the Local Network**

The local computer network of the Ministry of Finance is limited to a relatively small area. Its organisational structure enables.

- co-ordination
- centralisation and decentralisation of procedures
- simultaneous use of programs and databases

The network operational system which is installed on a special data server enables access to the following services: INFOLIT, IUS - Software, The ISSA Handbook database.

### *Infolit*

The program package Infolit for Windows is designed for minor and internal specialised libraries. It provides for computerised management of lending, library data output, and searching for key words, addresses, authors, fields and type of literature.

Infolit has been designed to operate within local computer networks for users working in the Windows environment. The original database is installed on the network server, which enables access by all potential users. At the same time the system ensures sufficient control over unauthorised access to the data. The users of Infolit can be divided into two main groups:

- librarians and database managers
- users of information - library service

The first group have access to all functions of the program. The second group is allowed to review specialised literature, publications and other library documentation and search for information. The users of Infolit also have access to the contents of the literature. The database being installed on the network server enables users to access the program from their workstations.

In order to protect personal data the users of Infolit do not have access to the names of the borrowers. They can only have information on whether the desired literature is available and at the users' disposal.

### *IUS - Software*

The program package IUS - Software is intended mostly for jurisprudential database processing. The database is installed on the dedicated server. The system operates through the local network and is designed to run in the Windows environment.

For the Law Collection there are two main program packages, IUS- system and IUS - Register. The first one refers to the Slovenian legislation and other legal documents (laws and regulations, court cases, taxes) The second comprises the register of laws and regulation in force, including the dates of the issue and the dates of later changes and modifications.

In the IUS-Register the users normally search for information related to when and in which media the particular legal document or regulation was issued. In

addition, the program enables viewing of any desired text. By providing both functions, searching and reviewing, the program has proved to be very useful.

Both programs enable copying and downloading of word text into a file on the user's workstation.

#### *The ISSA Handbook database*

The ISSA Handbook databases comprises data on the legislation of European countries namely from the field of operations with foreign countries, duties, taxes, financial markets, stock exchanges, names of contact persons, important addresses, etc.

The database operates in the Windows environment. The original version is updated twice a year upon a publication which provides current changes and modifications.

The ISSA Handbook database enables users to search quickly and easily for specific data of information on an individual country and to compare the same kind of data between two or more different countries. The system also enables searching by keywords.

#### **4. Information - Library Service in the Global Network**

The Ministry of Finance is connected to the communication system of the global computer network. By means of public networks it is possible to have access to electronic systems of individual institutions and organisations. Although each individual system may operate in a different way, the basic functions appear more or less the same. They all provide services like e-mail, exchange of files, and transmission of information. The information Library Service was given access to direct use of the global network system, which so far has proved to be a great advantage. In accordance with its basic function the Information - Library Service currently performs the task of reviewing and transmitting information from Cobiss/Opac, the Internet, and the Central Economics Library in Ljubljana and Infoklip.

#### *Cobiss/Opac*

Cobiss/OPAC (Online Public Access Catalogue) is the subsystem of the Cobiss cooperative online bibliographic systems and services and enables the user access to databases and online catalogues of library materials from more than 80 of the biggest Slovene libraries included in that system. Cobiss represents the common basis of the Slovene library information system and the system of scientific information.

Cobiss/Opac is a network application, constructed in accordance with up-to-date principles of the development of the network type application (client/server principle). Its software is composed of two logical program components (clients and server). Client is a user interface which "translates" the actions of the user into formalised questions, thus transmitting it to the second program (server), which may be installed on the same or on another computer. The server responds to questions issued by the client. Whereas the client may be installed on any VAX or PC computer, the server can only be installed on computers that already have the Cobiss system databases installed.

Cobiss/Opac enables the user to transfer data from the Cobiss system to other systems (e.g. Infolit) for the automation of library activities on the local level (PC), to view local databases and catalogues of institutions included in the Cobiss system, and to view the union COBIB database (Co-operative Bibliographic Database) in the function of various catalogues (e.g. catalogue of library materials of all institutions included in the Cobiss system, catalogue of foreign serials of the Republic of Slovenia, catalogues of individual universities, etc.)

The Information - Library Service of the Ministry of Finance is an associated member of the Cobiss co-operative online bibliographic system.

### *Internet*

In the last years the classical function of libraries has been more and more superseded by various electronic information systems which enable exchange, acquisition and transmission of information, searching, processing and storage of data, and reviewing and lending of library material. As to their resources and unlimited access, no classical library at present can be compared with their capabilities of providing information.

Generally speaking Internet is a global library. However, it is well known that it enables several different services. The Information - Library Service of the Ministry of Finance provides the use of its basic services, such as e-mail and access to distant computers and networks. So far, e-mail has been a significant factor in all areas of the Internet.

Users of Internet may search for various data, exchange information and communicate with other users of Internet primarily by means of search engines such as Excite, Magellan, Point, Inktoml, Alta Vista, InfoSeek, Lycos, Open Text Index, Webcrawler, Yahoo, etc.

### *The Central Economics Library*

By means of the Internet it is also possible to access the Central Economics Library in Ljubljana, which is not integrated into the Cobiss/Opac joint catalogue.

This library's database appears very useful when searching for information related to economics, finance, accounting, legislation, and similar. The system of the Central Economics Library is not integrated in Cobiss/Opac joint catalogue, but has a considerable number of documents and library materials at its disposal. By means of the e-mail connection there is another possibility for providing interlibrary lending of highly specialised professional material.

### *INFOKLIP*

Infoklip is a computer supported system for documenting, analysing and distributing contributions published in the media (so-called Clippings) concerning the operation of the Government Ministries, and other State bodies, and the Prime Minister.

The system enables users to survey the daily clippings, to search for articles published within a given period of time by using different data selection services (sundry entered data, words appearing in abstracts, or keywords), to search for radio and television broadcasts recorded and entered in the form of magnetogrammes, to survey international clippings, and finally to survey and search for contributions prepared by the Slovenian press agency STA.

Infoklip is an application, constructed on a client/server principle and developed for the Windows environment. It was introduced in 1995, at the beginning only for certain individual Ministries, offices and Government services that already had the facilities for connecting to the server at the Government Public Relations and Media Office through their network servers and the State administration communication system. At present, the clippings are available in this way to the majority of Ministries and Government offices and services.

So far, the system has brought numerous benefits in enabling both the Government Public Relations and Media Office and other users to perform numerous highly important tasks, better and faster. An additional quality of the system is its flexibility, since it can be adapted to new customer requirements with no major difficulties. In other words, the system is open, upgradable, and expendable.

## **6. Conclusion**

The establishment of the information and Library Service of the Ministry of Finance as a virtual library, and its connection to the local and global computer systems has proved extremely good and useful. A virtual library, in which data are stored on a computer as a database arranged by keywords or attributes which facilitate easy and fast searching, can hardly be compared with a typical classical

library in which library - documentation material is kept in book shelves. By means of electronic media it has become easier for the user to obtain proper information, to review library material and documentation, to carry on information research, etc. In other words, electronic systems have brought numerous benefits in enabling the users to perform highly important tasks better and faster.

However, there are also some disadvantages that have to be mentioned. There is a possibility of viruses entering from the Internet and other communication devices which may bring about serious problems in the organisation and performance of the virtual library.

Furthermore, there is a great problem arising for people working alone in an electronic environment with a computer being the only partner for most of the day. In comparison to people working with the public, in social places, persons working with computers are exposed to social alienation and disaffection.

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# ODIN : THE CENTRAL WEB-SERVER FOR OFFICIAL DOCUMENTATION AND INFORMATION FROM NORWAY<sup>1</sup>

By Elisabeth Sundholm

**Abstract:** ODIN is the abbreviation for 'Official Documentation and Information in Norway'. The paper presents the Norwegian web site ODIN, an electronic publication for information from the Government and the ministries of Norway. The purpose of the project was to make information from the ministries easier available by means of modern technology. The objective being successfully accomplished, the ODIN is established as a permanent central web-server after being run as a pilot project until the end of 1996.

## 1. Introduction

ODIN - Official Documentation and Information in Norway - is a joint electronic publication for information from the Government and the ministries of Norway. The ODIN was launched in August 1995, and was designed as a pilot project to run until the end of 1996. January 1997 the ODIN is established as the permanent central web-server for the Norwegian Government, the Office of the Prime Minister and the ministries.

The philosophy behind the project was that the information technology helps making public services more available. By means of the Internet, public information and public services are more easily accessible regardless of time and place. It is important for the public administration to make use of the new electronic information services in a systematic and simple way, thus giving the public a better access to information of their administration bodies.

The national government administration possesses of course large quantities of information that may be easily accessed electronically and free of charge, giving extended possibilities of obtaining material on matters of interest. By presenting public information on the Internet, the availability is good, retrieval is easy, and contextual relations are obtained by the linking to other documents. Electronic

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<sup>1</sup> *Paper delivered at the 63rd IFLA General Conference, Amsterdam, August 31- September 5, 1997.* Since the presentation of the paper in 1997 alterations such as those mentioned in point no. 6 (Tasks), have started. The estimate date of completion of the first part of the work is by the end of 1998. Also, the statistics show that the average inquiries have more than doubled compared to the numbers mentioned in the paper.

publishing is thus both efficient and cheap. The purpose of the ODIN is, in accordance with this, to make available information and news from the government and the ministries on the Internet. Our aim is to use modern information technology to make central government services more open and accessible. In line with the Norwegian public price policy, using the ODIN shall be a service free of charge.

## **2. Organisation**

An editorial board who sets the guidelines and to whom the editorial staff reports guides the ODIN. The Ministry of National Planning and Co-ordination heads the board. The other members represent other ministries, the Directorate of Public Management and the Norwegian Central Information Service.

The editorial responsibility has been assigned to the Documentation Centre of the Government Administration Services. Many discussions on who should be responsible for the service, either the Information Technology Section or the Documentation Centre, took place before the decision that went in favour of the Documentation Centre.

Designing and organising the service, advising the suppliers on how to present the material, and code conversion are tasks, among other things, for the editorial office. To present the information on the ODIN, the material need adapting to web, and the code conversion to the HTML standard (HyperText Markup Language) is at times a time-consuming task. To increase the efficiency of publishing, one has, however, started writing the official publications from the ministries in the ISO standard SGML (Standard Generalized Markup Language). The publications are converted from SGML to the HTML before being presented on the ODIN. The documents are in a progressively larger amount submitted in the HTML standard. Today, almost all propositions to the Storting (the parliament) are e.g. submitted code converted, and reports to the Storting will be submitted in the same way later this year.

The purpose of the SGML project is to publish all official publications from the Government and ministries simultaneously in print and electronically on the Internet.

Publicity for the ODIN is done in many ways. One activity for the editorial staff is for instance attending meetings and conferences. The ODIN may in addition be sought through links from numerous web-sites through the Internet search engines (Yahoo, Kvasir, etc.). Press releases, reports and speeches often refer to



ODIN, - this is another important element in making the ODIN known to the public.

The information suppliers (the Government, the Office of the Prime Minister and the ministries) are responsible for the content and the quality of the material they wish to publish on the ODIN. There is a general agreement in the ministries that they should be responsible for their own publications. Likewise, the ministries agree at large upon the importance of presenting the material in the same way. The suppliers must therefore follow a set of rules for presentation made by the editorial board. To maintain the high quality that is required, quality assurance (links, correct codes, organising the received material etc.) is performed by the editorial staff.

### **3. Security**

Presentation of the ODIN on the Internet must be performed in ways that guarantee that the security aspect for the intergovernmental network is maintained. The use of two servers addresses this problem: one is used by the central government administration and is placed inside a "firewall", the other server is the Internet server for the general public and one server is not connected to the other. New information from the server inside the firewall, on which the editing is done, is mirrored once a day to the public server. (The Internet address for the ODIN site is <http://odin.dep.no>).

### **4. Content**

The ODIN represents a new way of spreading public government information. One may state, as a whole, that the ODIN fulfils the main principles for the public information policy, although we still have some unsolved questions regarding the principle of totality and of communicating with our users.

As is the case today, the user cannot be sure to get all relevant material as per area of topics or per criteria for the deliverance of documents. That is, the ODIN offers information from the ministries, but it still varies what the ministries choose to publish electronically. Should we guarantee that the presentation is complete, i.e. that all publications in all publication fields are surely to be found on the ODIN, a lot more resources are needed in the editorial staff, and I believe that is the case in the ministries as well.

Documents to be found on the ODIN are publications from the ministries, press releases, speeches by ministers, reports and "grey reports", catalogues and surveys. The information is mostly in Norwegian, although there is an English edition as

well. 'Statement to the Storting on development co-operation policy' and 'the National Budget 1997' are examples of translated documents. It is more or less by chance documents are translated into English, though due to the Internet's international character, more documents ought to be translated. A daily news bulletin from Norway, "Norway Daily", is however supplied permanently.

The ODIN is updated daily. The link 'What is new on ODIN?' brings the reader to the page where he will find additions, changes and updates in English that has taken place on the ODIN. A similar link is found, of course, on the main Norwegian page. All documents on the ODIN are searchable. In many cases the documents are presented in chronological order and by ministry, making it easy for the users to find the specific information they are looking for.

To fulfil the intentions of the ODIN, it is of great importance that new material is published as soon as possible after being released.

From the ODIN there are links to a number of other Internet addresses, to national and international web-servers. Examples of links are to Norwegian government agencies, international organisations, newspapers, various databases, and search engines for the Internet.

## **5. Statistics**

Users of the ODIN are employees in the central government administration and the general public. About 1/3 of the inquiries comes from abroad.

Users with access by way of commercial Internet agents increase in number within Norway. These are private individuals as well as companies and institutional users. Inquiries from universities, colleges and research institutes show a relative decrease, although the actual numbers of inquiries have increased from these groups as well.

During the first year there were more than 1.6 millions inquiries to the web-site. Average inquiries now are about 490.000 per month. One inquiry means that a HTML file is inquired, graphical files are not included in the statistics. A monthly survey of the most frequently used web-sites in Norway (performed by Kapital Data), shows that the ODIN is among the top ten Internet sites every month. Inquiries made to the server inside the firewall are not included.

The number of files on the ODIN is in April 1997 about 16.000.

The peak in use is in the afternoon (from 3 p.m. to 4 p.m.), and this is probably because upgrading is done at the end of the day. A press release received from a ministry at noon can be read at ODIN between 2 and 3 p.m. Use of the ODIN is

moreover registered both day and night, at night probably by users in other time zones than ours.

There is a distinct connection of inquiries and news value of the information. When documents are presented on the ODIN at the same time as they are discussed in the news, the result is a distinct increase in inquiries.

We also see a clear connection in supplying material from a ministry and the use of the ministry's home pages. The Ministry of Foreign Affairs has been the most active provider of documents to the ODIN, and this is reflected in the number of inquiries to their pages.

## **6. Tasks**

Organising a permanent Internet server, as the ODIN, must be continuously evaluated regarding context, graphical presentation, functionality etc. The editorial board is now carrying out a user examination as part of the work of developing the ODIN further, and we expect to have the results of the survey in July or August of this year (i.e. 1997).

The editorial staff must also take an active interest in other national and international information services, and follow up on the continuous development of new tools for the Internet publishing. This is essential to keep up the standard of competence regarding maintenance and development.

One current discussion regarding the ODIN is a possible change in design and graphical presentation. These changes must be within the set frames of the coming design programme for the Government Services. We must also take into consideration the intention of the Board: ODIN should not be accessed by using only the newest versions of browsers, those using older versions shall also have reading access.

Concerning coming challenges, I will only mention some topics that must be discussed in the coming year:

- Structure: ODIN is growing very fast, and we very soon have to organise the content in another way. Whether we will choose a database system for all the material or a combined database/flat files system will be one of the questions on this subject.
- Easy access for special groups, such as e.g. the visually impaired
- Search functions: improvements needed on both a shorter and a longer term
- Interactivity: two-ways communication, audio, video etc.

## 7. Conclusion

By the response received from the general public and from the ministries we venture to say that, as a whole the ODIN concept has become a success. Great challenges lay ahead of us to renew and improve the ODIN. Within the next one or two years, I hope that we have managed to renew it. The ODIN is however, as previously stated, limited to present information from the Norwegian Government, the Office of the Prime Minister and the ministries. As an offer to others in the central government management who is planning to publish on the Internet, we are establishing a web hotel server where the non-ODIN related material might be put. In that way, more public information should be even easier to access than is the case with the ODIN alone. The co-ordinator of the web hotel is working in the Documentation Centre, as is the case for the editorial staff of the ODIN. The Documentation Centre is thus rendering services enabling the central government administration to be even more open to the public by means of publishing on the Internet.

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**NEW DEVELOPMENTS IN LIBRARY SERVICES AND  
TECHNOLOGY:  
MODERNIZATION OF INFORMATION SERVICES OF THE  
PARLIAMENTARY LIBRARY OF THE CZECH REPUBLIC\***

**By Karel Sosna**

**Abstract:** This paper will cover the comparison of services in the area of reference work and general library services in a traditional library, an entirely automated library, an electronic and "a virtual" library. This discussion is followed by a description of the digitization of the card catalogue (a retro-conversion project) and of the parliamentary papers in fulltext (a project called "Electronic Library -- Czech Parliament"). The paper concludes with a description of a project for creating a knowledge-based access system for users of the Parliamentary Library.

The information age, as compared with post-industrial society, is characterized by the fact that it will deal with material less and less, and with information more and more. To illustrate the point: while one production unit 20 years ago consisted 80% of material and 20% information, the current situation is the other way round. Or, to put it in a different manner: If you wanted to sell your body as biological material, you would get about 7 USD in New York. Most of your body is water, a little calcium and a few more valuable trace elements. However, if you wanted to sell your genom, i.e. your genetic information, to a laboratory, you would get 7,000 USD.

There is another way how to dramatize the point: the story is told that a man's car breaks down. He is lucky that it happens very close to a village. So he knocks at the closest gate and asks a villager: "Do you know something about cars, please? My car has just broken down." "Well, I am no car mechanic but I can have a look at it," the villager says. He takes a screwdriver, puts up the hood, looks inside for a while and tightens something. He says: "It should be O.K. now." The car really works and the driver says with a happy voice: "Thank you so much, you've rescued me. What will it cost?" "It's no big deal," the countryman claims. "But I will be pleased to give you some money. Just say how much," the driver insists.

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\* Paper delivered at the 63rd IFLA General Conference, Amsterdam, August 31- September 5, 1997 (updated version)

"All right," the villager agrees, "give me a hundred dollars." The answer was quite surprising for the driver. "What? A hundred dollars? You just tightened a screw!" "Do you want a bill? I will write one for you," is the answer. "I am really interested in that," the owner of the car cries. The villager writes: "Tightened screw - 1 dollar, knew which one - 99 dollars".

That is what the new age is about. About the ability to choose the right information at the right time. To know when, where and how to search, and how not to discover the already discovered. For librarians it means that we have to supply our users with the information they demand, in a form they want, at the moment they need it and to a place they require it to be. What a library as an information institution may offer or what it wants to do is not the key. The key is what is demanded.

Thus, we are getting to libraries as such. The information society is undergoing stages of development similar to the developmental stages of the library-- moving from the traditional library, to the automated library, to the electronic library and on to the "virtual" library. In this process, its historical form, main objectives and range of services are also changing quite dramatically.

To make it clear, we can visualize from our experience the differences between the developmental stages. A traditional library is full of printed documents, readers, librarians and cases with catalogs. An automated library, which provides access to its printed documents through its On-line Public Access Catalog (OPAC) and which has carried out a retro-conversion of its card catalogs, is not physically equipped with catalog cases (in some libraries, their original front boards are used as a wall-paper). An electronic library, which is connected to the Internet through which it provides access to its digitized (originally printed) book collections in an electronic form, does not physically keep shelves with books and periodicals. The library is getting smaller visually. A virtual library, as it is known, does not actually exist physically so that it does not need any librarians. Its information resources may be spread throughout the whole world, its information is not gathered. Access to the information is provided in the place and at the time of its origin. Thus, there is only a relation between the producer (author or data source) and the recipient (reader or user) of the information. In the traditional role of a librarian as a keeper and provider of information becomes completely superfluous in this situation. We do not know when this state described will be reached, or whether it will ever happen.

What we know and have to bear in mind in our work is that typical library services, such as keeping a catalog and lending books, are losing their original primary significance in an electronic (digital) library to which all of us are now

moving. In practice, it is apparent in the decrease of the number of registered book-loans and book readers. At the same time, there is an increase of the number of users (consumers of information) and requests answered. This trend will get even stronger because:

- (1) the development of information services goes from providing secondary bibliographical information towards factual and full-text information and from gathering documents at a point in time towards providing information 24 hours a day,
- (2) commercial transfer of documents is often carried out directly between the company which produced the document and a target user. It constitutes a source of powerful competition for libraries.

Generally, electronic libraries are characterized by three main features:

- flexibility and openness of their integrated library systems,
- bilateral (client/server) connection to the Internet,
- creation and use of databases and full-text electronic (digitized) documents.

To be more precise, the hallmarks of fully electronic libraries in the opinions of experts are as follows:

- the library is user-oriented, its main purpose is satisfying their users' demands for information,
- book collections are designed to meet current information requirements; most of the libraries (except for those with a specific function) therefore do not have any old collections or keep them only to a limited extent; unused literature is put aside or kept in deposit collections,
- the library provides access to a wide range of information sources, including on-line databases, information on CD-ROMs and services of the Internet, regardless of the medium used,
- the library provides access to external information sources and service is an integral part of providing information for users; it emphasizes that user access to literature and information sources of all kinds is more important than keeping them directly in the library,
- bibliographical description is not complete in a traditional sense; main descriptive cataloguing (i.e. author catalogs ) is only transferred from the external catalog systems; a large emphasis is, on the other hand, placed on subject processing (subject catalogs) and document indexes,

- the library provides as wide a range of information services and various related supporting services as possible; a librarian becomes more and more an information advisor rather than a mere book lender.

### **Starting Point for Development of Information Services of the Parliamentary Library**

Let me use the Parliamentary Library of the Czech Republic as a specific example of this transition process. We identified electronic information services that we would use as the basis for future development -- and provided for the introduction of these services in stages:

- (1) Introducing OPAC (On-line Public Access Catalog) and other secondary electronic information sources concerning book collections, plus catalog retro-conversion,
- (2) training on searching methods in databases,
- (3) creating manuals and guides for databases and other information materials, in printed as well as in electronic form,
- (4) assisting with the information of the inquiry and with the choice of a proper searching method and strategy of background research for each type of information source,
- (5) helping with printing background research findings and data downloading, if needed,
- (6) helping create a personal bibliographical user database,
- (7) doing background research on on-line bibliographical, factual and full-text databases,
- (8) introducing databases in the library for different target groups of users,
- (9) offering individual information services of the Current Contents and SDI type,
- (10) introducing readers to using the Internet; each information specialist in the library becomes an Internet librarian,
- (11) creating a meta-information system of a cognitive type which in its interactive mode enables its users to get all the relevant information available, regardless of the place of its storage, media type and collection type of library materials (book collection, computer database); if the system is not able to provide the necessary document or information directly, it has



to provide sufficient references to other information resources, persons, etc. which/who enable the user to get the primary document or information.

- (12) converting unique and special library collections into an electronic form.
- (13) information service through E-mail.

I would like to discuss three tasks in more detail. Their implementation shall be a major step forward in the services of the Parliamentary Library and in its computerization.

### **Card Catalog Retroconversion**

Retro-conversion of card catalogs, i.e. their conversion into an electronic form, is one of the basic conditions for completion of full automation of the library and, at the same time, one of the conditions for full connection of the library to information networks on a national as well as international level.

The Parliamentary Library of the Czech Republic has about 200,000 volumes of printed items registered in its card catalogs. They have accumulated from the library's establishment in 1857 until 1993. The library has not continued in maintaining its card catalogs since the Tinlib integrated library system was set up on January 1, 1993. It gives access to all its documents through OPAC. At the same time, we decided to re-catalog all items gathered since the "Velvet Revolution" in 1989 in Tinlib and make them available through OPAC. The so-called "live collection" has been re-cataloged for three years, simultaneously with the mentioned library-wide re-cataloging books from 1989-1993. This means that each book-loan of an older document triggers re-cataloging this document in Tinlib, which makes it part of the inventory of the electronic on-line catalog.

Because it was clear that it would take over ten years to form a common on-line catalog in this manner of re-cataloging each book (only 1.5 person years of our labor force re-catalogs names in Tinlib in our library, the whole library having only 14 employees), we have decided to convince the Members of Parliament and management of the Chamber to provide us with the financial means for retro-conversion of card catalogs. We succeeded at the end of last year. The Permanent Committee of the House of Parliament for Activities of the Office of the House of Parliament decided on November 6, 1996 to grant 1,000,000 CZK (about 33,300 USD) to the library for retro-conversion of the library's catalog in 1997. We conducted a survey of the financial demands of the project from private companies (including OCLC) dealing with these activities. The survey has shown that the price of conversion of one catalog card into an electronic form ranges from 3 to 40 CZK, depending on the method and degree of perfection of the technology of

retro-conversion used. Considering the book collection has 200,000 items, the costs would be from 600,000 to 8,000,000 CZK. Since we have only 1,000,000 CZK at our disposal, we are trying to decide between two alternatives:

- (1) to have an external supplier scan the whole catalog only in the basic "picture" form (what is on the catalog card is in the same form available to all users in their computers, they may search just like in a traditional catalog), the price being 3 CZK for a card. The remaining money (about 400,000 CZK) shall be used for complete retro-conversion of about 10,000 cards, or
- (2) to have an external supplier carry out complete retro-conversion for 1,000,000 CZK, i.e. scanning, conversion of the record into a text form and tagging (structuring) into the exchange format Unimarc. The complete retro-conversion would be performed only for about 25,000 cards, i.e. 1/8 of the whole catalog.

The selection procedure of the supplier shall be held during the second quarter of 1997 as specified by the Law on Public Orders and this whole stage of retro-conversion shall be finished by the end of the year. No matter which of the above mentioned alternatives is chosen, it is certain that we will have to continue it in the following years, taking into account our financial means. The author of this report prefers the first possibility. Its implementation would enable physical removal of catalog cases and gain some free space for enlargement of the reference collection of the study room with other needed books which cannot be displayed now.

### **Meta-information System of Cognitive Type**

The Parliamentary Library is launching a new venture in applying advanced automation techniques and artificial intelligence in improving search techniques for clients. When completed, the meta-information system will enable readers to search and obtain information regardless of where it is stored (geographically) or how it is stored (books, documents, films, databases). If references cannot be found, the system will provide leads to people or places where further information can be located. This new service is currently being prepared for Members of Parliament and Senators of the Parliament of the Czech Republic in cooperation with the Department of Information Technology of the Office of the House of Parliament. Some preparatory steps of this very demanding task have been implemented already. A survey of parliamentary libraries worldwide has been conducted, its objective being whether they are currently considering implementation of a meta-information system of the mentioned type. I would like to thank all my colleagues who took the effort and filled in our questionnaires.

We sent our questionnaires to 37 parliamentary libraries last year, 22 of them replied. Replies received from Poland (the Senate as well as the Sejm), Finland and New Zealand were the most interesting ones. We are very likely to address our colleagues in these countries and ask them for consultations this year.

In our republic, we have established a close cooperation with the Department of Cognitive Engineering and Information Studies of the School of Economics in Prague which, after many discussions, prepared a study of about 50 pages called "Intelligent Searching in Information Resources" during 1996 and at the beginning of 1997. The Director of the Department of Information Studies and Library Science of the Faculty of Philosophy of Charles University in Prague did a critique of this study. The content of the study follows in brief form.

Introductory sections of the study analyze the current situation: the structure of typical requirements of users, as well as internal and external information sources of the Parliament and their use in accordance with surveys conducted in March 1996 and January 1997. The next section deals with general trends in the development of heterogeneous information systems with an emphasis on integration of information services and the influence of the Internet on information systems.

The proposed structure of the parliament's meta-information system is based on a division of the system into three hierarchically separate levels. The highest one deals with user interface and is carried out in the WWW environment. The medium level, the meta-information system itself contains user support and use of a thesaurus to make searching easier. The lowest level involves the language and technical interfaces with individual information sources.

The next section deals with the role of the EUROVOC thesaurus (a multi-language thesaurus of the European Parliament dealing with many fields) in the information system of the House of Parliament and its integration into this system. The next part of the study describes the attitude to current information sources and gives some recommendations aimed at improvement of their use, especially by means of establishing a meta-information system on the basis of SGML. It is proposed to extend the structure of documents of the House of Parliament, which have been stored as non-structured text files, with structural information. The computer language SGML would be used. It would make searching for linkages and related documents easier.

The section that follows deals with searching for information in the Internet and gives recommendations for the information system of the Parliament concerning the strategy of access to information sources from the Internet. They include:

creating and keeping a specific list of information sources (a global list of suitable main pages of WWW servers) for the purposes of the Parliament, a specific list of information sources related to coming events and discussed bills, and a list of high-quality and confirmed searching engines.

The study concludes with a section dealing with the possibilities of implementation of artificial intelligence methods to support the users. Three methods of support are proposed: an expert system to create menus dynamically depending on the user, an expert system for searching information sources, and the use of an intelligent WWW agent.

It is not a short way from the study itself to implementation of even a small part of a meta-information system of a cognitive type. The first important step is, as usual, obtaining necessary financial means. We intend to use some practical incentives from the study and the number of employees in our information activities as soon as possible.

### **Electronic Library "Czech Parliament"**

The project of an electronic library is also a significant step towards computerization of services of the Parliamentary Library. This library shall contain complete texts of parliamentary prints (i.e. bills, including explanations and decisions), shorthand minutes (i.e. verbatim minutes of all sessions and all voting) and other parliamentary documents from 1861 until now in an electronic form. It would contain tens of thousands of pages of text which could create a good library with hundreds of volumes.

The Library has already taken some preliminary steps in close cooperation with the Department of Information Technology of the Committee of the House of Parliament. On the basis of a proposal by a private firm ESU Praha in June 1995, the library and the Department of Information Technology submitted a proposal for an electronic library called "Czech Parliament" to the Secretary General of the Office of the House of Parliament. The Secretary general of the Office approved the project and appointed a committee of executive officers from the Office under his leadership for final consideration of the proposal before a selection procedure is announced. The committee was to consider the usefulness of the project, set forth its content and scope and try to find some means in the budget for 1996 to start the project (the budget of the Office for 1996 was already set forth at the time of approval of the project). The committee decided to separate conversion of parliamentary texts into an electronic form from production and distribution of a CD-ROM which the project counted on as a carrier of data, and to hold a selection procedure only for the conversion. At the end of 1995, a survey of prices on the

market was conducted which helped us calculate the expected costs. We came to the conclusion that it is possible to carry out activities amounting to 1,000,000 CZK in 1996.

The objectives of the project are:

- To provide access to information on current and past activities of the Czech Parliament to the public, as is customary in democratic countries. At present, all parliamentary documents (prints, shorthand minutes) are stored in written form only in the Parliamentary Library. This situation is in contrast with the fact that the public is increasingly interested in activities of the Parliament. The library, with limited access for the public, may not satisfy the demand through traditional means (providing copies).
- To provide access to current parliamentary documents with regard to the application of modern technology and methods of information work,
- To preserve the "Golden Collection" of the Parliamentary Library for the future in electronic form, because the paper is slowly decomposing and it is not even possible to make copies of some originals; electronic text on a CD-ROM would mean survival of this legacy of the Parliament for another 80 - 100 years.
- To become one of the first parliaments in Central and South-Eastern Europe to create a such electronic library.

The explanation of the project furthermore argues that the investment return from the texts of the electronic library may not be adequately valued in money terms, but that its main purposes are:

- (1) To increase the prestige of the Parliament, whose activities are still hidden to the public or interpreted (filtered) through mass media.
- (2) To protect against destruction or loss. In case of a possible sudden natural catastrophe, fire, war, and subsequent destruction of the library's collections and archives, the parliamentary documents will be still available for coming generations on a substitute medium in many places, regardless of the original place of their creation and storage (it also applies in case of a destruction of the printed documents as a consequence of natural wear of unavoidable physical and chemical processes).
- (3) To increase the speed and convenience of access for the Members of Parliament and Senators to parliamentary documents as a source of knowledge and inspiration of their legislative activities.

The whole project was planned to be implemented over three years. A decision was made that the so-called "nest-like" method shall be used, i.e. the parliamentary documents will be chronologically converted into an electronic form gradually from key historical periods of our modern history in which there is the greatest interest. In 1996 the following periods of interest were covered by document conversion to electronic format: parliamentary documents from 1989 until now (Federal Assembly, Czech National Council, House of Parliament of the Czech Republic), and from 1968 until 1970, (National Assembly, establishment of the Federal Assembly, establishment of the Czech National Council). In 1997, parliamentary documents from 1945 to 1948 (Legislative Assembly, National Assembly), 1913 (end of the Regional Congress) and 1861 (renewal of activities of the Regional Congress) are being converted into electronic form. The remaining documents shall be converted in 1998. After these activities are finished the texts shall be stored on several CD-ROMs for the purposes of the Parliament of the Czech Republic. Another selection procedure shall be held for production and distribution of the CD-ROMs.

Two private companies won the selection procedure held at the beginning of 1996. They offered the best technical and financial parameters and at the same time carried out the most successful test of conversion of 10,000 pages of text. At present, more than a half of the project has been completed and the work continues. Existing results of the project are available on Internet at the following address - <http://www.psp.cz/eknih/>. The project has found a great favor both in the domestic and international media which can be also proved by a number of registered entries into the electronic library represented for instance by 1326 entries in May 1998 alone. Internationally compared, this project presents a unique scheme with a deep historical span. For most of democratic parliaments make accessible on Internet only those parliamentary documents of the last two or three terms of office. When the whole project is finished next year, the Parliamentary Library of the Czech Republic, at least its special collection of parliamentary documents, will be open 24 hours a day.

## **Conclusion**

The significance and usefulness of libraries will not be measured by the number of their volumes, number of employees and number of book-loans in the coming information society. These figures will probably drop as is already happening in many libraries which are seriously engaged in trying to computerize and provide electronic information services.

The significance and usefulness of libraries, regardless of their size, will be the greater the faster they change from mere collectors, keepers and lenders of printed documents to the position of an experienced searcher, evaluator and provider of relevant information from all carriers, including electronic carriers. In other words, their significance will be higher the more they are able to apply modern information technologies depending on their human, financial and technical means and to share rich sources, available at present in on-line databases, CD-ROMs and on the Internet, in international cooperation for their users. To return to the tale of the village repairman at the beginning of this paper: it depends on whether librarians will be able to acquire and in the course of time keep their expert advantage with their users, having the technical skills to know which screws need adjusting. Our common task is to change libraries from warehouses (depositories) of books into a rich source or treasury (repository) of information and at the same time serve as an open door leading to it.

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## **New Books of Interest for Special Librarians**

Ellis, Debbie; Norton, Bob: *Implementing BS EN ISO 9000 in Libraries*. - London: Aslib, 1996.

Höckmair, Brigitte: *OPL-Management. Arbeitsablauforganisation einer One-Person-Library. Mit Arbeitshilfen und Formularen*. - Wiesbaden: Harrassowitz, 1997.\*

Dawson, Andy: *The Internet for Library and Information Professionals*. - 2<sup>nd</sup> ed. - London: Aslib, 1997 (The Aslib Know How Series).

Vakkari, Pertti; Savolainen, Reijo; Dervin, Brenda (Eds.): *Information Seeking in Context. Proceedings of an International Conference on Research in Information Needs, Seeking and Use in Different Contexts, 14-16 August, 1996, Tampere, Finland*. - London; Los Angeles: Taylor Graham, 1997.\*

Feather, John (Ed.): *Transforming Libraries and Educating Librarians. Essays in Memory of Peter Havard-Williams*. - London; Los Angeles: Taylor Graham, 1997.

Bradley, Phil: *Going Online, CD-ROM and the Internet*. - 10<sup>th</sup> ed. - London: Aslib, 1997.

Aitchison, Jean; Gilchrist, Alan; Bawden, David: *Thesaurus Construction and Use: a Practical Manual*. - 3<sup>rd</sup> ed. - London: Aslib, 1997.

Scammell, Alison (Ed.): *Handbook of Special Librarianship and Information Work*. - 7<sup>th</sup> ed. - London: Aslib, 1997.\*

Beaulieu, Micheline; Davenport, Elisabeth; Pors, Niels Ole (Eds.): *Library and Information Studies: Research and Professional Practice. Proceedings of the 2nd British-Nordic Conference on Library and Information Studies, Queen Margaret College, Edinburgh, 1997*. - London, Los Angeles: Taylor Graham, 1997.

\* Review in INSPEL forthcoming



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